United States Department Of Commerce National Telecommunications & Information Administration (NTIA)

Meeting Of The First Responder Network Authority (FirstNet)

Secretary's Conference Room
Herbert C. Hoover Building
U.S. Department of Commerce
14th and Constitution Ave., N.W.
Washington, D.C.

The First Responder Network Authority convened at 9:00 a.m. with Sam Ginn, presiding.

Members and Staff Present:

Samuel "Sam" Ginn (Chairman)
F. Craig Farrill
Ed Reynolds
Jeffrey Johnson
Peters Suh
Laura Pettus (NTIA)
Uzoma Onyeije (NTIA)
Anna Gomez (NTIA)
Teri Takai
Kevin McGinnis
Wellington Webb
Paul Fitzgerald
William Keever
Charles "Chuck" Dowd
Dana Hyde (OMB)
Rand Beers (DHS)

Via Telephone:

Susan Swenson
Tony West (DOJ)

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Chairman Ginn: Mr. Secretary, do we have a quorum?

Mr. Onyeije: Yes, we do.

Chairman Ginn: The meeting is properly constituted, and I call the meeting to order. I think one of the things I'd like to do and we did at our last meeting is go around the table, primarily for the webcast, and have all of you have a chance to meet our board, get to know a little bit more about them. So let me start on my right here with Craig Farrell.

Mr. Farrill: Good morning. My name is Craig Farrill. I'm director here at FirstNet, and I'm from Danville, California. And welcome.

Mr. Reynolds: Ed Reynolds, FirstNet board member. I live in Myanmar Beach, Florida.

Mr. Johnson: I'm Jeff Johnson. I live in Sisters, Oregon, and I'm a retired fire chief.

Mr. Onyeije: Uzoma Onyeije, FirstNet Secretary.

Ms. Pettus: Hi. Laura Pettus with the Office of Public Safety Communications at NTIA, and I live in Alexandria, Virginia.

Chairman Ginn: And she is a presenter today.

Mr. Suh: Peters Suh from Alamo, California, Consultanting to FirstNet.

Mr. Mcginnis: Kevin McGinnis, FirstNet board member, Ambulance Service Chief. And I live in Hallowell, Maine.

Mr. Webb: Wellington Webb. I live in Denver, Colorado, former mayor of Denver. And I'm a FirstNet board member.

Mr. Fitzgerald: Paul Fitzgerald, Sheriff in Story
                     County, Iowa, past president of the
                     National Sheriff's Association. And
                     I'm a board member.

Mr. Keever: Bill Keever. I live in Yardville,
                     California. I'm a board member and
                     retired from the telecommunications
                     industry.

Mr. Dowd: Good morning. I'm Chuck Dowd. I'm a
                     Deputy Chief with the New York City
                     Police Department and a board member.

Ms. Hyde: Dana Hyde, representing Jeff Zients
                     with the Office of Management and
                     Budget.

Mr. Beers: Rand Beers representing Secretary
                     Napolitano from the Department of
                     Homeland Security.

Chairman Ginn: I think we have two members of our
                     board on the telephone, Sue Swenson
                     and Tony West.

Ms. Swenson: Okay. I'm a resident of San Diego,
                     California, and a retired telecom
                     executive, and a FirstNet board
                     member.

Chairman Ginn: Okay, Tony?

Mr. West: Yes, and I'm Tony West representing
                     Attorney General Eric Holder.

Chairman Ginn: Okay. Well, thank you all for making
                     yourself available for our second
                     board meeting.

                     I'd just like to say to you, that as
                     we have gotten into this project, we
                     have run into full force of what it's

about. And it's one of the most
complex telecommunications projects in
the history of the United States.

It's doable, but it's going to be a
challenge for this board and, for all
who are participating in trying to
make it happen. And I think the board
understands that. And we are ready to
step up to the challenge.

Now, we find ourselves in an odd
situation in some ways. We started
out with a board of directors, but
with no employees.

Usually it's the other way around.

And what it has forced us who do and I
think maybe this has been good. It's
forced members of the board to become
active workers in trying to get this
project organized. We've organized
ourselves into committees. There's a
technical committee, they've been
working on the concept of the network.
An NOI went out on that, we got
information back from that, and we are
incorporating those recommendations
into our network plan. We continue to
do evaluation of that plan at Bolder
and other technical institutes around
the United States to make sure that
the steps we take are going to be the
right one for the network that we
finally build.

We have an incredible job with
outreach, so we created an outreach
committee to make sure that there is a
path for public safety to communicate
with this board and primarily the
public safety representatives on this
board have been leading that challenge

and I want to thank them. Because it is indeed a very very large job.

There is a BTOP committee and this committee has been working very hard going around the country, meeting with states and cities where the projects have been suspended and I want to tell you that we understand that this issue is on the burner. And we need to be communicating with you, and working with you to understand the terms and conditions under which we can release these projects.

And of course, we have a personnel committee, and I think you will hear from the personnel committee today.

We really need to get in place a senior management team. We have a committee working on locating and hiring a general manager. We will have a report from that committee as well today.

 I think it's extremely important that we get the senior management in place so the board can begin to serve its proper role. And so, there's a lot of pressure among us here to get the senior management in place. And as I said before, you will hear from that committee.

So just a word or two on the meeting today, we'll go through a series of enabling resolutions. This is just a part of forming the company, getting it organized, getting the rules and regulations under which we operate in place. And so that will occupy the first part of the meeting and then we will have a series of presentations,

some feedback from the NOI. Jeff Johnson will talk to us about outreach to the public safety community. Ed Reynolds will give us a report on BTOP, and then we will have a report on the iPad, our ability to transmit information to our users from a position on the network. And Bill Keever will report to us on that.

So, why don't we get started here, working through the minutes. You have before you the minutes of the previous meeting, and I'd be interested in any comments or suggestions from those meetings.

If not, can I have a motion for approval?

Is there a second?

Second.

Chairman Ginn: Discussion?

All in favor?

Aye.

Chairman Ginn: Minutes passed.

Okay. Next thing on the agenda is a number of enabling resolutions, Uzoma, what I'd like to do is take these one at a time, I want you to give the board, some essentially the background as to why we are looking at these resolutions and then I'll ask for a vote.

Mr. Onyeije: Good morning board members. As Chairman Ginn mentioned, these are enabling resolutions to help FirstNet

get underway with its work. The first resolution that you're going to be considering is related to the acceptance of gifts.

The middle class tax relief act which created FirstNet also has a provision in there which allows FirstNet to accept gifts. And what this resolution essentially does is to start the process by which FirstNet will create a policy for the acceptance of gifts.

And so with that, I will turn to you.

Chairman Ginn: Just for the benefit of the web cast you want to give us an overview of what the policy is?

Mr. Onyeije: Sure. The policy would essentially say, would essentially layout what types of gifts FirstNet would be in the position of accepting and which gifts FirstNet wouldn't accept. Certainly gifts such as cash are very simple and easy to process. There are other gifts that are a little more complex, and the policy will layout more detail in terms of gifts of real property and things of that nature.

The actual policy itself will be coming shortly, but the resolution essentially is indicating that that's a direction we're going to make sure that we have something in place to accept gifts when they come in.

Chairman Ginn: I guess, what I want to -- I think we need to be clear here that these are going to be guidelines that govern our behavior and they are consistent with the laws that have been passed by

	Congress; is that right?
Mr. Onyeije:	That's right, the policy will layout a scheme that makes sure that the gift acceptance policy of FirstNet is consistent with all federal regulations.
Chairman Ginn:	Yeah, I just would say that I don't know that -- I can't imagine circumstances where we would be in a position to accept gifts, but perhaps we need the policy -- okay.
	Comments?
	Mr. Chairman, if we're doing that, will these gifts be recorded and tracked, I guess, so, we can follow whatever, as I understand, we'll also, it would go to the FirstNet board, so just so we can keep a tally on what gifts, if any, have been provided.
Mr. Onyeije:	Absolutely, the board members will be aware of what gifts come in and how they get processed.
	Very good. Thank you.
Mr. Webb:	Mr. Chairman, I had a question, this is probably obvious, but I just want to make it for the record, has this policy been vetted by either the legal counsel for Commerce or the Attorney General's office.
Mr. Onyeije:	It's currently being -- the actually policy is currently being vetted, that's why it's not in your packet.
Mr. Webb:	Okay.
Chairman Ginn:	Yeah, you know, I'm guessing here that

we're talking in some ways about gifts of equipment for testing in our labs, I don't think what we're dealing with here are personal gifts.

But in a lab setting often times you ask manufacturers to send their equipment in, for us to do technical testing to make sure that the equipment meets the specks and standards.

And I think that's what we're talking about here. Do you agree with that, Craig?

Mr. Farrill: Yeah, Wellington, I think some of this is gifts of test equipment, maybe vehicles, devices, samples that we could utilize for testing on the network side. And they're very much appreciated because it allows us to get the latest technology in our hands in quick fashion.

Ms. Hyde: At OMB we'd also like to - we'll take look at the policy when it comes through to make sure it conforms with --

Chairman Ginn: Yeah, thank you, Dana, yeah, that would be good, I just want to make sure that we end up here with a policy that is consistent with the law and proper behavior on the part of FirstNet.

Ms. Hyde: Absolutely, yep.

Mr. Webb: Yeah, my question, Sam, was not that I thought we were going to be accepting cash gifts, but that it's been known on occasion the federal government always has spoken with one voice, so I

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                     just want to make sure that once it
                     was done, that all segments of our
                     legal counsels were in synch with what
                     the policies --

Chairman Ginn:       We just had Department of Justice say
                     that they'll take a good look at it.
                     So I feel comfortable.

Mr. Webb:            I feel better.

Chairman Ginn:        Okay, any more discussion?

                     All in favor of the resolution, say
                     aye.

                     Aye.

Chairman Ginn:       Opposed?

                     Aye's have it.

Mr. Onyeije:         The second resolution that the board's
                     going to be considering today is a
                     follow on to the gift resolution.  The
                     act that enabled FirstNet also allowed
                     FirstNet to accept voluntary service.
                     So, as opposed to a gift that would be
                     coming in, this would be someone
                     potentially volunteering their time to
                     help support the effort of FirstNet,
                     and the goals of the act.

                     And again this is going to be a
                     resolution that's going to be followed
                     by a policy that's being drafted in
                     conjunction with OMB, DOJ, DHS all the
                     folks at The Department of Commerce as
                     well to make sure that we have a
                     policy that's consistent with all
                     federal law related to how we allow
                     folks to volunteer in support of
                     FirstNet.
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Chairman Ginn: Any discussion on this one?

                   All in favor.

                   Aye.

Chairman Ginn: Opposed?

                   Motion carries.

Mr. Onyeije: The next resolution is concerning the
                   public safety advisory committee, and
                   how the public safety advisory
                   committee gets its work from FirstNet.

                   It's to summarize what the resolution
                   does, it essentially says that there's
                   two ways the public safety advisory
                   committee can get its work, number 1,
                   the board or a board member designated
                   by the chair can deliver assignments
                   to the PSAC and the other way is if
                   they believe that there is some items
                   that they can help FirstNet with, they
                   bring those items to the board, and
                   get preapproval of those items before
                   they get started on it and that's the
                   next resolution for the board.

Chairman Ginn: Jeff, any comments on this one, Jeff?

Mr. Johnson: No, Mr. Chair.

                   Mr. Chair?

Chairman Ginn: Yes?

Mr. McGinnis: Just one quick comment on it because
                   during discussion there was some minor
                   issue about the meaning of the term or
                   the phrase matters regarding
                   intergovernmental responsibilities
                   where administration is limiting the
                   PSAC and what it does, it was made

clear that that's really a grammatical device to keep us copacetic with the federal advisory committee act and as a former chair of SAFECOM from which PSAC derives, I just wanted to assure folks that SAFECOM is equally treated that way, and has never caused a problem or a limitation on what we consider. So I don't see that as a problem with the PSAC.

Chairman Ginn: Yeah, thanks for that clarification, Kevin.

                  Mr. Chair, when we craft our rules about this, the detailed rules, we're going to make sure that we don't have any issues related to the publications of assignments. Thank you, Kevin.

Chairman Ginn: Any further discussion?

                  All in favor?

                  Aye.

Chairman Ginn: Opposed?

                  Motion carries.

Mr. Onyeije: The next resolution concerns financial responsibilities of FirstNet. I think as Chairman Ginn described FirstNet is in a unique position right now, where you have a fully functional board. And it's time now to start looking to put a management team in place.

                  What this resolution does, is it provides thresholds by which people can approve to get work started for FirstNet.

                  So they would approve the funds, that

approval would then go to a contracting officer who would actually do the authority to spend those funds but there would be a threshold related to officers of FirstNet, there would be a different threshold related to the general manager, and there would be a third threshold related to funds that could be authorized by the chair. Anything above and beyond that, would be authorized by the full board.

Chairman Ginn: From my point of view, we're going to see a lot these because we're beginning to put in place the control mechanisms, so that we can operate and this is just one of the early ones. I think an important one because it has to do with how we spend our money.

And I spent some time on this particular one and I think it makes a lot of sense, but I will take any other comment.

Mr. McGinnis: Mr. Chair, I just wanted again a clarification here, that I think people can feel good about, and that is, I know that the authorizations here are for large amounts of money; however, there is a provision in here now that states that those authorizations follow an approved budget the board has already established. So I think we can be very comfortable about that.

Chairman Ginn: Yeah, and I think just to add to that, a lot of work is going on right now, in what I will call a strategic plan, where are you going to be a year out, three years out, five years out?

And the staffing and the cost of those

operations, so we begin to get a real clue, as to what our budgets ought to be. And so that work is really pretty far along. And that is being broken down into finite pieces of work that we need to execute our plan.

And I think the point Kevin is making here is you know, we need to have a real good sense and feel of what the work product is, 1, 3, 5 years out here and begin to put into place the capability to deliver that.

And a part of that is money and another part of that are resources and people. So, yeah, we are pretty far along on that, anything you want to say Craig?

Mr. Farrill: Not on this one. I'm good.

                Mr. Chairman?

Chairman Ginn: Yeah?

                I would like to say that I certainly recognize the need for funding for this board to move ahead with things that we need to do. I also want it known that I have concerns that as we are moving ahead, this board yet still has to hear from our public safety advisory committee and we have not done that yet.

                And I would like to see that we do have information back from them, consideration report back from then, so it will help us in the developing of these plans as we move forward.

Mr. Chairman: Any other comments?

	All in favor?
	Aye.
Mr. Chairman:	All opposed?
	No.
Mr. Chairman:	We had one no.
	Motion passes.
	Next resolution.
Mr. Onyeije:	The next resolution follows on to the resolution related to financial management. And that is, FirstNet, as everyone around the table is well aware has a monumental task ahead of it, to build operate a nationwide interoperable public safety broadband network.
	It's going to require a significant amount of effort. A lot of that effort is already underway, but it's going to require a comprehensive business plan and a financial plan to help us see the vision of how we move from here to where we want to be.
	And what this resolution does is it gives the board an opportunity to approve of the spending of certain amounts of dollars to get to the point where we have that plan in place. And we can present that plan back to the board for approval.
Mr. Chairman:	Yeah, this is basically measure, right, Craig?
Mr. Farrill:	It is, that's correct.

Mr. Chairman: Yes, Kevin.

Mr. McGinnis: Again, just one comment and it will be my last one on the resolutions.

Chairman Ginn: No, that's fine, go ahead.

Mr. McGinnis: No, that's fine.

                  The sum of $10 million is for just a simple public safety guy is a breathtaking number, now for the business we're getting into it's just the cost of doing business. And it's very necessary. It's attached to a fairly broad description of what it's going to be spent for, but again I'm very comfortable with this after some discussion because this also ties to the resolution we just approved which enables senior management to expend funds. But again only after a budget is established which we have approved. So I think that all tide together makes this very doable.

Chairman Ginn: Yeah, and, you know, I understand the perspective because we are talking about big budgets here.

                  But I'd just like to remind the board that this is the largest Telecom project in the history of this country.

                  When we complete this project, it's going to be larger than some of the major carriers today, okay?

                  If you look at those major carriers and just a simple example, the number of engineers that are working just incrementally on their networks, there are thousands of those engineers.

And I think we have 12 employees at
this point in time. So we have to
grow a great deal, this is a complex
project. There will be hundred of
thousands of decisions made every day
as we get into this project.

And I just hope we don't forget about
the scale, and how complex it's really
going to be, because it is a very
large and complex effort.

So, I understand Kevin, and I want you
to keep us honest about budgets. I'm
for control, and just as you are, I'm
for holding people accountable for
what they do. And if we don't get
results, we'll change it, and make
sure that we do.

But this is not a small project in the
northern part of Maine. I mean we've
got to cover every square meter of
this United States with a wireless
system.

And that's going to be a big
challenge.

Ms. Hyde: Mr. Chairman?

Mr. Chairman: Yes?

Ms. Hyde: I know our OMB staff has been working
                 closely with the staff here, all 12
                 thus far, and has asked a number of
                 questions around the controls in
                 place. I think we are comfortable
                 with where we're going forward here,
                 but I want to encourage that continued
                 engagement as we go forward.

Chairman Ginn: Yes, yeah, yeah, we need your help.

There's no question about that. And I think that in terms of process, and how we can move reasonably fast on decisions, we really need your help.

Ms. Hyde: Yes.

Chairman Ginn: And we've had conversations about this.

Ms. Hyde: Yes, we have.

Mr. Chairman: And we need to do that and meet all of the requirements for being open and transparent, and accountable. So, there's no argument there.

Ms. Hyde: Right. We will make sure we are closely latched up along the way.

Chairman Ginn: Okay. Thank you.

Craig?

Mr. Farrill: Sam, I just would like to provide some additional detail on behalf of the team working on this plan so that you all have an expectation of what you might be seeing. When we talk about a comprehensive business plan, first we want to look at the amount of time that that plan will cover to get to a going concern which has been a revenue-based model, we'll be talking about a number of years to get us from where we are today to revenue, then beyond revenue to break even. So there's at least two major periods that this plan will cover. It will cover the pre-revenue period and it will cover a period to break even.

This is a break-even business, it doesn't intend to make money. It will

return any dollars to the FirstNet to
be reinvested if we exceed that. So
what we'll be looking at are a number
of things I wanted to share those.

One of the largest portions of this
$10 million is for outreach and
consultation. In fact the majority of
the dollars is related to people who
are reaching out to 50 states and six
territories, both at the state level,
the local level and also at the tribal
level in those areas. So that is a
major portion of the $10 million will
be just to reach all of those,
communicate with all of them and
frankly gather all of the information
that they have that is beyond what's
in the current documents that we have
today.

We have a wonderful compilation, very
grateful to all of the people at NPSTC
and PSAC and others who put together
the requirements that we have for this
plan.

But that's the input to the plan. The
plan needs to now describe how does
the business grow from 0 employees to
a break-even business?

And we're talking about probably a
horizon of about ten years so this
will give you a look at ten years,
that will include the user fees that
would be paid by estimated by us being
paid by the states or by local users.

But I want to highlight most of all
this is a need's driven plan. It's a
user driven plan. It's a requirements
driven plan. It's not a technology
driven plan. It's not a carrier

driven plan. It is driven by the user requirements that we receive and solely by that. So as Sam said, there is a wide scope and a wide sale to this business. This will become a multi billion dollar operation. So Kevin as you said 10 million it's a large amount of money in my economy, in most anybody's economy, but when you look at spending 10 million to plan a multi billion dollar annual operation, it's a reasonable, it's a reasonable figure of merit.

Now, what we'll be bringing back to the board is the strategy of how that would be rolled out, how we create a national business, how we bring the different talents together from different types of agencies. So for example, Sam mentioned engineering talent, there are a number of engineering centers in the U.S. where there is great talen in wireless engineering. There's also customer service locations around the U.S. which are lower cost economical for technical support, billing support. And there's final operations, so we'll have all those different things detailed out there for you in that plan.

And but I want to highlight that this is driven by the states, tribal, local and federal safety agencies, and their various needs. So the deliverables will include an actual business model, you will see a start up plan, you will also see a projection of users, where the users are physically located. This is again an unusual situation where we can actually name the user organizations and we can't name all of

the employees yet. But we will soon
be able to distribute the population
of user organizations around the
United States.

This will also include some software
tools and software services that will
allow us to do that planning. There
will be a network proof of concept in
our laboratory in Bolder that is
underway right now. This will include
propagation studies, in building
penetration, mobile devices, switches,
radios, a number of different things.
The two main network elements you will
see are a network plan for core
network, Peters Suh will be talking
later about how our applications and
services will be delivered, the actual
platform technology that we use for
that will be covered in a core network
plan.

Another section of the document will
be a radio network plan that will show
how the cell sites laid out to deliver
the radio service and cover the area.
As Sam said our intention is to cover
every square meter with a combination
of terrestrial and satellite services.
And then finally there will be some
words on procurement and acquisition.
So how do we bring the people on board
to staff that organization and how do
we bring the equipment and services on
board to run that operation.

So I wanted to give you a bigger
picture of what that will include. It
won't just be an Excel spreadsheet
with a few numbers and no explanation.
This will be a very complete package,
much like we've used in other parts of
the world to deal with start-ups of

large countries like Australia or China or France or Italy. So we have some good experience in this, and we will work with OMB too to make sure that our categories are linked with the federal categories. Our discussion currently is that some of the operating categories that we will be using to track and control expenses are not in the current chart of accounts.

So we will be adding to the chart of accounts for FirstNet to include all of the federal categories that you all have and then categories that we need to track say the cost of a per unit cost of what something is costing us, or there's a few details that we need to go one level lower. So I just wanted to fill that out so you all would have an idea. That will not be done in a week, it will not be done in a month. We will probably take our time here. I'll be getting back to the board I wanted to be sure we had approval to proceed before we engaged, it's always good to aim before you fire.

So we are doing that today and pending approval of this, we will go out and come back to the board with specific timing on when we can deliver this plan. We hope to do it around April is our current estimate.

Chairman Ginn: Thank you, Craig. You know, I'd just like to pause here for a moment and remind the board that sitting around this table are some members who have engineered, constructed and maintained systems, wireless systems around the world.

As Craig was talking, I was just thinking well, sounds like the plan for Germany and Italy and Spain, and Portugal abd Korea and Japan and many across the United States, so I think the board can have some confidence that the technical team that we put together here has been around this track before, they've built systems all over the world. And I think we're very, very fortunate to have them.

They know what they're doing. We've got to make sure that all of the increments are laid out and understood by this board and approved by this board, but I want to give you some confidence that the technical team there's none better in the world than we've assembled around this table.

So, I will ask if there are any more comments on the resolution?

Mr. Webb: Sam, I'd like to mention one is that I have full confidence in the talent sitting around this table. And Craig I think the amount of time you've spent on this is just extraordinary.

Mr. Farrill: Thank you, sir.

Mr. Webb: I think it's way -- in my younger days, say above the rim.

Mr. Farrill: I like that, that's a good analogy.

Mr. Webb: I mean, many of you, you and Jeff and others have just put in extraordinary time. The one thematic I'd like to say though is I think we always have to keep in mind one of the underlying pinnings is that a lot of these

	requirements have to be driven I think to some degree by public safety.
Mr. Farrill:	Yes, sir.
Mr. Webb:	Because at the ultimate, at the end of the day, that the users for state and local government are both going to be from the public safety sector.
Mr. Farrill:	Agreed.
Mr. Webb:	They're the users and they're also the purchasers. And so that outreach that Jeff is coordinating is so important because that buy-in has to be there from that public sector community, because at the end of the day, the mayors will authorize their public sector folks and governors will authorize their public sector folks to purchase what we're producing.
	So I'm very comfortable with where we are. And I think the resolution is a good one. And Sam you're blessed, you got a talented board here with a lot of great folks and merging the two between the public sector folks and the telecom experienced people is part of the challenge but I'm certainly of the view that we can certainly get this done.
Chairman Ginn:	Yeah, thank you, Wellington.
	Any other comments on the resolutions? Chuck, you've been awfully quiet.
Mr. Dowd:	Thank you, Mr. Chairman, and as long as you've --
	He's opened the door.

Mr. Dowd: Yes.

Chairman Ginn: That was a mistake.

Mr. Dowd: Absolutely not.

                   And so just to echo Mayor Wellington's
                   comments, that is the critical task
                   here. And we do have a lot of talent
                   around this table. You have
                   assembled, you know, on the technical
                   side and the business side a very
                   competent group. We also have a lot
                   of expertise around the table about
                   how public safety systems need to
                   operate and we need to mesh those two
                   together. And I know you've made a
                   commitment to do that.

                   I know Craig and the others have made
                   a commitment and, you know, just real
                   quickly a quick comment, you know,
                   I've mentioned this before, hurricane
                   Sandy was a very interesting learning
                   experience for everybody involved in
                   this process.

                   And, you know, in the middle of that
                   we invited in some of the members of
                   the board to come in and take a look
                   at what had happened.

                   And their interest in understanding
                   what had happened, what worked, what
                   didn't work and their desire to make
                   sure that as we go forward the issues
                   that public safety needs addressed it
                   was clear to me when they came to New
                   York and studied that, and that's not
                   the only place they're going, they're
                   going all over the country doing this.

                   But during that event it was clear to
                   me that they are committed to making

sure this works the way public safety needs to. So I want to compliment you and the folks that came into New York to look at that.

Chairman Ginn: You know, the first principle, commerical or government is if you don't satisfy your customers, you don't succeed.

And I think Craig and the technical team understand that. If we don't provide the services that public service wants and needs, then we're not likely to be successful. I think that's where you start and we are in a great shape because we've got members on this board who understand what those requirements are. We have PSAC who is supportive and going to help us through this process.

So, actually, I think structurely we're in pretty good shape.

Okay, any other comments?

Where are we here?

We approved the --

Mr. Onyeije: I think we can just call for a motion.

Chairman Ginn: Okay, all in favor?

Aye.

Chairman Ginn: All opposed?

Motion carries.

Mr. Onyeije: Okay, the final resolution that's going to be considered today is concerning FirstNet acting officers.

I think we've already had a bit of a
discussion about how FirstNet -- I
always like to describe FirstNet as a
reverse start up.

FirstNet has some funding, FirstNet
has a board. But FirstNet doesn't
really have a management team to date.
And what this resolution will do is on
a temporary basis, put two of the
board members in the position to help
with some of those operational details
that we've been discussing until we
find candidates to fill those
positions permanently. Those two
board members are Craig Farrill and
Jeff Johnson.

And I think both of them can talk --

Chairman Ginn: Let me comment on this. One of the
principles that I think's important is
for the general manager whenever he or
she is appointed, to be able to have a
big say in their senior management
team.

And so I think before you on a
permanent basis add your senior
management team, you have to have the
general manager in place.

Now, after having said that, the
project is gaining momentum, it's
moving on, and it's just in my mind
we've got talent on the board who can
serve both as board members and acting
senior managers to a point in time
when their successor is appointed.
And that's what this is about.

Jeff, is going to step up and take
outreach to the public safety
community. He's got all the background

in the world to do that and I really appreciate him willing to work full-time and take on that responsibility.

And actually Craig has been acting as acting general manager for about six weeks now. And he's perfectly willing to step back as the technical team leader whenever we can fill the general manager's job. Which I think we'll get a report on later. So that's kind of the rationale here. Whoever comes in to run this place, I want them to have full flexibility in who they hire. And until that time these two guys are going to step up and carry on on an acting basis.

Any further discussion?

Mr. Chairman, first of all I'd like to say, as public safety member I'm very proud of Jeff Johnson and the work that he does and I think he'll be an excellent person to carry this forward. I've also been very impressed with Craig Farrill and the work he's done and also look forward to continue this board to follow the leadership that's being presented.

With that said, do we have an idea of a time line that we might be looking at for general manager, and --

Chairman Ginn: We're going to get a report on that in the meeting itself.

Oh, very good.

Chairman Ginn: So, can he we hold that?

Absolutely. Thank you, sir.

As soon as possible.

Yesterday.

I just want to say, thank you to both Craig and Jeff for your willingness to take on this task. Those of us who preceded the creation of the board struggled with what that process was going to look like and how quickly we could put a management team in place and I think those of us who come from the government side of this really appreciate this interim solution albeit, but one that keeps the board and the activity moving, which is absolutely critical.

And I know, Sam, that's what you want -- you don't want us to tread water, you want us to move -- and so I really appreciate this.

Chairman Ginn: The project requirements will roll over you.

I mean, I'm full-time too, it just, I'm more than full-time, and, you know, the interest in the project are such that I probably could meet eight hours a day with people who want to talk about the project.

Mr. Webb: Sam, I'd like to move it forward by making the motion to for the adoption of the resolution.

Chairman Ginn: Second?

Second.

Chairman Ginn: All in favor?

Aye.

Chairman Ginn: Thank you.

                   All right. That's all the enabling
                   stuff. It was a little more
                   complicated than I thought to be
                   honest with you.

                   Okay, NOI response, Laura, we're ready
                   for your report.

Ms. Pettus: Thank you, Mr. Chairman.

                   So we wanted to just bring to the
                   board a very high level review of what
                   was received in the NOI comments and
                   NTIA on behalf of FirstNet received
                   133 comments. They were all very high
                   quality and well thought out. And we
                   appreciate all of the stakeholders for
                   responding to the NOI.

                   So you know the kind of breadth of who
                   we heard from, states, locals, tribal
                   entities, federal entities, we heard
                   from consultants, vendors, commercial
                   carriers, satellite, rural Telecoms,
                   utilities, national associations,
                   individuals, just to name a few.

                   So we did get a lot of really great
                   feedback. And for the most part all
                   of the commenters were extremely
                   appreciative for the board for going
                   out for public comment and also for
                   coming to the first board meeting with
                   some ideas.

                   So I think that people were extremely
                   impressed that there were some
                   substantive items discussed at the
                   first board meeting. There's also a
                   lot of support for leveraging
                   commercial infastructure. There was

an acknowledgment that with the
limited funds an existing
infrastructure that commercial
providers have, there is an
opportunity for a faster deployment.

With that said, there were also a lot
of areas were the commenters wanted
the FirstNet board to take some
additional look. So you know, many of
the commenters said that there was a
lack of detail and the assumptions for
the model were not included and
without that detail they had to
hypothesize about how it would
actually work.

And so with that, they were curious
about how FirstNet was going to
connect with the commercial wireless
providers at what level, at the
evolved packet core at the radio
access network, the software
development platform, exactly how was
it going to be connected.

And additionally, what were the types
of roaming arrangements that FirstNet
was going to look to? Is there going
to be a standard? What's the cost
model? So those are areas where
commenters kind of across the board
needed additional information in order
to really weigh in.

They cautioned about relying too
heavily on commercial infrastructure.
Specifically, the commercial
infrastructure may not be hardened to
the public safety standards that will
be necessary for this network.

Additionally, more thought needs to be
put into the backhall. Are you

planning to backhall directly to the
FirstNet core? And if so, as one of
your major cost drivers what does that
mean for local and rural areas? And
are you adding additional cost and/or
vulnerability to the network that you
need to consider?

There was a lot of emphasis on the
need to leverage the state, local,
tribal and federal infastructure that
currently exists as well as the
critical industry infastructure such
as: Water, power, electric, gas,
chemical, the comments around those,
what they call CII, the critical
industry infrastructure.

Is that they have similar needs as
public safety for ubiquitous coverage
as well as high reliability. So that
might be a natural partner for.
Additionally, you know, don't leave
out the rural and satellite providers.
They have a lot of knowledge, they
know about the coverage, they have
infrastructure in parts of the country
that are not typically covered by the
large commercial carriers.

One of the biggest concerns was the
plan that was proposed at the first
board meeting did not address the
public safety user requirements. It
didn't look at the priority access,
the quality of service, the network
reliability, resiliency and
redundancy. And FirstNet should try
and incorporate early some of the
importance regarding network security
both cyber and physical, user
authentication and encryption
standards.

So additionally, a lot of the
commenters wanted to talk about
outreach, you need outreach to your
key stakeholders. You need to ensure
buy-in, and there was a huge, a huge
need for local control. And defining
that, and making sure that the local
public safety where the everyday
emergency happens have control over
who has access to what scenarios and
that they are moving the levers. And
so making sure that the system you
design has local control built into
it.

There was many comments regarding the
lack of a business model. What are
the cost drivers? FirstNet needs to
define clear sustainable business
model in order to then decide what's
the best network architecture. And I
think many of the resolutions that you
passed here today should address some
of those comments. You know with
respect to the multiple bands that
would be required in the devices.
FirstNet would need to drive the
device market for multi-band, multi-
operator technology devices. But you
also have to realize that high cost
devices will be a huge barrier for
entry and adoption by public safety if
it's too costly.

And then the final two pieces that we
wanted to kind of highlight is there
were many commenters that wanted the
FirstNet board to allow the early
builders to move forward.

And the concept of please do not leave
the 911 centers behind. Design that
into your network from the onset and
it will make for a more comprehensive

and necessary solution for public safety as a whole.

So that's our summary, at a very high level, there was many more nuances in the comments but for brevity today that's the high points for you.

Chairman Ginn: Any questions?

Comments?

Mr. Farrill: Yes, Sam, thank you very much. I'd just like to add our thanks to those who took the time to make the comments that we received. For those of us who are receiving these thousands of ideas that need the weighting, we're very grateful.

And wanted to let each of you know that we did read those comments thoroughly and compared them to a number of the architectural concepts and I just hasten to note that this was an architectural illustration, it was not a detailed plan. So we plan to go the next step in what we just approved is to do a business plan, what we were looking for is exactly what we got.

An ability to understand what the common themes are, and Laura's just laid those out very well, and how we can apply those themes to our network design and to our business design, for us as a national wireless operator starting from scratch, this is the most important time to get that kind of input. So we have your input. We've got it at the most important time. Now we can fold it into the steps. So the way we do that is by

each of our design teams takes those comments. We had over 80 comments in the applications area, for example, in applications alone looking for specific features and functionalities, Peters Suh will be talking a little bit later about some of our concepts in that area, so you'll get a little bit more of a window into applications and services today.

But, as we look at the overall concept here. It does remain the same. It's national standardization, and local customization and control. That's the, kind of the moniker for us if you look at it overall. There are unique needs in geographies, in tribes, in territories, but there is a very compelling need for interoperability and national standardization. That's how we get scale, and scope and cost reduction. So we're going to get both of those by putting those all together.

So what you'll see in future meetings when we come together and look at the network design is it will move from an impressionistic painting more into HD photograph as it gets more clear.

And what we measure is how well is our design meeting or exceeding the statement of requirements? This is a requirement's driven document.

So if we are meeting what's required there. PSAC is going through a current effort, many of you know, to take a look at what are the initial services that are needed?

Whenever you start a business, have

you to have your launch details worked
out in preciseness, and so we've
asked, we'll be asking for that to be
done.

And we feel like that those current,
there's about 4,000/4,500 requirements
currently not excluding the NOI input.
The the NOI input what it does for us
is highlights and prioritizes areas to
pay more attention to.

So that's how we're looking at it.
These are areas we can spend more time
on, pay more attention to. And that
inner design work we are looking at
all of the workable network solutions.
There is no focus on a particular one.
Let's look at all of the network
solutions and see which one of those
best meets the plan.

So Mr. Chairman, I would declare that
the NOI was a big success. Because it
achieved a lot of feedback for us, and
it gave us an ability to prioritize
what we're doing and at a time when we
needed it. So again, thank you very
much.

Chairman Ginn: Thank you, Craig.

Any other comments?

Mr. McGinnis: Mr. Chair, one thing that this process
has done, that came out of it probably
less so in formal comment than in just
comments to individual members was
boy, that was a quick start off the
first meeting. The whole proposal put
on the table and where'd that come
from and who saw that? And that sort
of thing. And what's the review
process going to be in the future?

And I think that one of the things that I've come to realize over the last few weeks is that there are two very different ways of building a system. There's a public safety way, the way that I've worked for 38 years trying to get things done, which inevitably requires a lot of planning and endless review, and endless input and total transparency and sometimes it doesn't get done.

You just keep moving forward and keep your sight on the target and eventually you get there. Then, there's what I understand to be the corporate way in an environment of competition, where you get a good idea, get some people around you and you go like crazy and keep your cards close to your chest, and then you get it done very fast, and you have a huge structure that may result from that. And there's not a lot of transparency by virtue of necessity.

And I think we need to strive for some place in-between those. And we've had a good deal of discussion about that. And so this has also served a great purpose in trying to get to us to find ourselves in terms of our obligations for transparency obligations and yet our obligations to move this thing ahead, fast.

And so I think it's been very useful for that purpose.

Chairman Ginn: There is a balance, Kevin, I agree with you on that.

I think to some extent you're going to

have to control your chairman. Because I come from the commercial world, and I admit that, I have a bias for action, get it done, make it move.

And to the extent that that doesn't allow us to communicate properly with our users, you need to pull me back. So, I do acknowledge that.

But I'm going to have my foot on the accelerator because I really understand how complicated this project is, and how much effort it's going to take and I think if you don't do that, we are likely not to ever get this network built.

So, that's kind of where I'm coming from.

Mr. McGinnis: And I greatly appreciate that, because after the five or six years we've invested in getting us to where we are today, the folks that have said 8, 10 years or so we'll see something turned on, I want to prove them wrong and I think you're the right guy to do it.

Chairman Ginn: We definitely can prove them wrong.

Thanks for those comments any more?

Mr. Webb: Sam, I would concur with the chairman's analysis, keeping your foot on the accelerator, because I think the government in itself will have impediments that may slow it down some. And so I would air on the side of trying to keep us going as fast as possible.

Chairman Ginn: Yeah, thank you.

Well, you know, I must say, we've had surprisingly good response to our issues. Among OMB, and Justice, and at Commerce, I mean, people have listened carefully to the issues that we have presented and I think to the best of their ability are dealing with them. We're not there yet on all of them, but I am surprised at how responsive everybody has been. So thank you all for that.

Okay, any other comments on the NOI?

Jeff?

Mr. Johnson: Thank you, Mr. Chair, it's my pleasure today to give you an update on outreach. I think the most important component that we've executed in the last 30 days is the seating of the public safety advisory committee. As this board's aware, this was actually a deal that we worked out with the Department of Homeland Security to bring over the PSAC from SAFECOM and actually give them dual role.

It has a couple of advantages, first that has been the repository for the industry expertise on these kinds of issues. So to just tap them was very efficient. And second, there's some exemptions that come with them that aid in our goal to be expedient, and to not get drug down in process that isn't helpful.

Harlan was chosen by our chair as the chair of the PSAC. We have 41 seats on the advisory committee, 37 of those have been filled. And we're currently working on filling the last four seats.

We have pending assignments headed to the PSAC, Mr. Chairman, that has to do with Craig's conceptual architecture. We will be asking the PSAC to review the statement of requirements and to recommend to this board initial launch criteria for performance of the network.

The second thing we're asking them to do, actually I blended those two, we're looking for a statement of requirements review and then a conceptual architecture review. So we'll be asking our PSAC to take a look at that conceptual architecture.

We have one major outstanding to do left as it relates to the PSAC, and that's executing an agreement between NTIA and DHS on how we work out essentially the business arrangement between the PSAC that is being loaned to us functionally for this purpose. So we're working on that. I would expect that by our February meeting, Mr. Chair.

As it relates to outreach, we have a hard working sub committee made up of members of the board, and I wanted to just publically thank NTIA for their staff loans.

Mr. Chairman, to the point you're making about trying to get this thing running, while we try to hire a staff and get a general manager in place the only way we've been able to do it is because NTIA, their leadership has been flexible in loaning us sitting staff members.

I'm guessing that to some of the folks
on the outside it likes like NTIA has
done a hostile takeover of FirstNet,
and it couldn't be farther from the
truth. What they've done, is they've
opened their staff and said until you
get staff hired yourself, we will loan
you what we can, of course we have to
bill you for it, but they'll loan us
what they can, and my experience with
the folks they've given us, is they've
been top quality.

Our outreach priorities, Mr. Chair,
are number one: To get BTOP visits
out there quickly, we will be
completing those BTOP visits this next
week. We will have taken a small team
and met individually in each state
with the BTOP entities.

Then, we'll be executing what we're
calling a listening tour, so our goal
is to talk to the states. And to talk
to the executive staff for the govenor
and the govenor themselves. And
essentially listen to what their needs
are, to make sure that those are built
into the engineering components and
the network components that we're
putting together.

We'll follow that with targeted
communication to leadership, for
example, the co-chairs of the National
Governors Association, Homeland
Security Committee, those are two
people we need to have a conversation
with.

So we have a number of folks like that
that we need to talk to. We intend to
partner with the National Govenor's
Association on six regional meetings

in the first quarter of the years. Those meetings will be focused at the governor's executive team, so their CIO, the head of their radio network, et cetera.

And then we're currently implementing plans to use the media and our associations that represent the public safety community as ways to get the message out and the ways to receive feedback.

If we can get out there through the associations and through the, you know, the popular trade press, and tell our story, then I think that's going to expedite the feedback loop of people saying hey, I read this, what about this or that.

And then, lastly, Mr. Chair, our top priority probably outside of those, is we need to get a professional marketing communications team on board and create a plan about how we communicate with our user community.

And that is a top priority. My expertise is being a fire chief, I'm happy to fill this interim role, but we really need someone that is going to be an expert at how we do that, so that concludes my report.

I will field any questions.

Chairman Ginn: Any other comments.

Wellington.

Mr. Webb: Jeff, did you not -- I think the Mayor of Houston appointed someone to the committee, did they not?

Mr. Johnson: Yes, Tom Sorely.

Mr. Webb: Sam, this is an important appointment
                  because sometime Mayor's think they
                  are left out of activities as does all
                  elected officials at some point think
                  they're left out of the activities.

                  So given that a person from mayor
                  Parker's staff in Houston, Texas who
                  also chairs the Criminal Justice and
                  Public Safety Committee for the U.S.
                  Conference of Mayors. I think this is
                  an important appointment. It also
                  sends a signal to the U.S. Conference
                  of Mayors, they're also working with
                  the liason office for NTIA to have a
                  presentation made either at the
                  January meeting or their leadership
                  meeting in late February.

                  So I just wanted to say that I think
                  with that appointment all of the boxes
                  are being covered.

Chairman Ginn: I think Jeff and his team have really
                  done a really good job of making sure
                  that groups are represented.

                  So Jeff thank you for that.

Mr. Johnson: Thank you.

Chairman Ginn: Any other comments?

                  Okay. Let's move to BTOP.

                  For those on the web cast who don't
                  understand this acronym, we have a
                  clean up activity that we must deal
                  with here. Before the law was passed
                  that created FirstNet, some money was
                  allocated to various states and cities

to begin engineering and constructing an LTE network.

When this legislation was passed those activities were suspended. We've got a number of states and cities in a period of suspended animation. We've sent a team out to meet with each of those entities. If they haven't met yet, they're scheduled to meet. And so when those teams complete their visits, we're going to sit down and look at ways to try to resolve these issues in a timely way and get back to the states and see if we can get this issue behind us.

That effort has been led by Ed Reynolds, a member of the board, he's had a lot of help from members of the board, but I'd like to ask him to sort of give us a status report.

Mr. Reynolds: Thank you, Mr. Chairman.

There are seven BTOP grantees around the country and we have now visited I believe with three of them. We have another visit this Friday, that I'll be participating in and then we'll finish up next week.

I had the privilege of being the first two visits, the first of those to the city of Charlotte. I was accompanied there by Sheriff Fitzgerald, another board member and also by staff from NTIA Lance Johnson and Jeff Bradshow. We had an excellent meeting, the Charlotte people we very prepared, gave a good presentation to us and we had a great discussion. Many great discussions over the course of the day.

Alcatel Lucent is the vendor that they're using, they have a 39 site network design, they've not actually deployed anything physically, they have equipment in the warehouse, but they described to us that the relationship with Alcatel Lucent was beyond just a vendor/customer relationship it was more of a partnership. And there were Alcatel Lucent people in the meeting with us along with a radio consulting firm they're using, and the partnership aspects of their relationship were evident there. They are working together to try to achieve their goal.

There were several important findings I think we ran across some of them were were new to us, some we expected and I'm going to try to hit the high points of those.

The first thing was a new finding, and that was as they were designing their network, the state of North Carolina has adopted standard for resiliency, reliability of public safety towers called TIE 22 REV G.

It requires among other things a wind loading of 150-mile an hour in the design, it has ice loading requirements, it has seismic requirements and so forth.

Most of the towers that you'll find today that are used by commercial wireless companies would not meet that standard. They would be probably in the 75 to maybe 120-mile an hour range of wind load for example.

So the cost to build a tower of that
strength or the cost of retrofitting
one that's existing to meet that
standard can be sizeable. So that's
an issue we're going to have to deal
with around the country as we look at
deploying the FirstNet network.

Another aspect of that is that
government funds cannot be used to
strengthen a commercial tower unless
the government has security interest
in it not going to want to do that, so
we have to find another way to have
the tower owner strengthen it and
maybe raise the rent or something like
that but it's an issue we have to deal
with that does add dots deployment of
this network.

From sustainability standard business
plan wise, the Charlotte people took
the approach that they have to start
at the competitive marketplace end,
what are they paying today for
broadband services from commercial
carriers. That's about 39 buck as
month, so the belief is that they have
to start there and design a network,
design a business model, that will
meet that price point as opposed to
designing a network, operating system
and then say, well, this is the cost,
therefore we have to price it at this
level to cover those costs. So that
was also something that we already had
talked about ourselves, very
consistent, but it just reinforced the
need to pay attention to what we are
building in this network in terms of
cost management long-term to meet the
competitive marketplace.

They do believe, and I would concur

with this, that they probably could
charge a slight incremental amount
above, say $39, maybe $5, could be 10,
because the FirstNet network will have
things that commercial networks don't
have. They'll have a higher rate of
resiliency in terms of cell sites
hardened, they will have higher
throughput speeds, probably better
coverage, because they'll be designed
specifically for public safety in the
D block. They will have access to
that network for managing their own
subscribers' activations, setting
priorities, to change customer
priorities, shut down mobiles, that
sort of thing. So there's a lot of
features that they would have access
to that they do not have today in a
commercial world, but that does not
double the cost recovery amount
they're willing to pay. It simply
increases it by a small increment.

Devices, we had discussion about the
availability of devices. Charlotte's
plea was that we need to be seating
band 14 devices as soon as possible.
Obviously, they recognized, as we do,
the issue with that is, there are
multiple bands in any device. And the
other bands that you have in there
along with 14 are dependants who are
you going to partner within terms of
roaming arrangements. So an AT&T or
Verizon or Sprint will all have their
own set of bands besides band 14. But
nevertheless, the emphasis there is to
push ahead as rapidly as we can to get
band 14 capable devices manufactured.

Another issue we ran across is a
little surprising to me is the cost of
SIM cards that go in the devices.

Those are a commodity these days, they're very inexpensive, except in this case, which you go to the large SIM card manufacturers, and they say, bring an order for me and then we can talk. So instead of something that costs less than a dollar, they're paying like $30 for a SIM card to a small boutique supplier. So that's something I think FirstNet can help with in terms of volume of purchase, and standardization of design, and that sort of thing. So I guess I would have expected there would be some higher costs given the low volume, but that was not $30, that is right.

We had discussion about local control, and the Charlotte people had on interesting take on that. Their response right away was, we need to change that conversation, instead of talking about local control, we need to talk about local management.

And their view was that whoever is back there pushing the buttons and watching the lights and the dials is sort of immaterial to them as a user. What they need is the ability to manage their operation, manage their communications, and that's this access to the network including access to NOC type feeds that would show the status of the network, any sites that are down, that sort of thing, and be able to manage subscriptions and so forth. So it's very much a discussion from their needs standpoint of managing the network locally, as opposed to controlling the network, if you will. I thought that was a good view that they had.

They are, of course, asking to be --
for the suspension to be lifted so
they can move ahead. One of their
drivers is that they're spending about
$65,000 a month in costs as they sit
idle. They have some communication
facilities, they're using -- the
approach they've taken is a hosted
core, rather than dedicated core on
site. So they have back haul
facilities to that, they have some
tower rents they're paying, they do
not own those towers yet, and that
sort of thing. So they have a burn
rate of about $65,000 a month while we
are in this holding pattern.

Back to the control thing for a
second. They are fine in the future
with transferring control, ownership,
if you will, of the assets being
deployed under the BTOP grant. They
just need an equitable compensation
for that for the dollars that they've
extended of their own funds. They
think that could be done a couple of
ways. We could work out some
arrangement early on or if they
operated the network for about four
years, they believe they would
operationally cost recover their
initial expenditures.

And they also -- we talked about the
issue of indemnification which is one
of the criteria we asked them about.
Would their vendor be willing to
indemnify us so that if the FirstNet
network does not utilize the assets
that have been deployed, would they
reimburse for those? And the vendor
said they do not think that is a
problem, that they can do that,

assuming that we specifically call out those items that are indemnified, not just a general indemnity. And that makes sense.

They did tell us, that if they're given the green light to go ahead, they believe they can have their system of 39 sites up and running in about 18 months.

Second visit we took was to Mississippi, and besides Sheriff Fitzgerald and myself and Lance and Jeff, we also were joined by Kevin McGinnis on that visit. Again, we had a good visit, we had a good day, we met at one of their state data centers, which is a very hardened facility, that's where they have their -- a lot of IT effort is concentrated, it's also where they focused their efforts on LTE.

We found out right away that they have in Mississippi a unique arrangement, I say it's unique, called a wireless communication council. Seven years ago the legislature adopted this legislation to establish this council, it's 17 members, it has membership from state and local public safety, it has membership from the state public safety, the emergency management agency, the MEDCOM, Mississippi medical side is represented on the board, the state CIO is a board member.

Ironically, it was established seven years ago in the same year that Hurricane Katrina hit, although it wasn't related to that. They just recognized that they are very rural

state, they have an awful lot of small
agencies, police departments or fire
department, volunteer mostly, and they
needed a better approach to providing
communications, wireless
communications to those entities who
could not, on their own, do that. So
in one sense, if you think about what
they've done, they've almost created
seven years ago sort of a state level
FirstNet, that they wanted to take an
approach of looking at from a state
standpoint and therefore provide
something that all of the agencies
could use.

They're in the final stages of
launching a new LMR, local mobile
radio network, under the auspices of
this council. They have a very high
take rate, they have about 18,000
users on it, just now, they've divided
the state into regions, they're just
now finishing the testing and will be
launching in the north part of the
state to complete that. So they've
had a very good take up rate by the
agencies that they intended to serve.

In terms of LTE, they had a design of
134 sites. Initially sites that they
primarily own, they are all Rev. G
compliant, so they're built to the
150-mile per hour standard and so
forth. They have since recognized the
need for about 100 more sites to fill
out the footprint.

Mississippi is not only very rural, a
lot of territory to cover, the foliage
is very heavy, a lot of pine trees,
and that attenuates the RF signal. I
was seeing cell radius coverage of
about 5 or 6 miles, which is much less

that you would expect some of our
studies in areas like Colorado where
it is flat, no foliage, you get ten
miles or better, so there is a
difference. But nevertheless, they
recognize they need to add to their
network.

Trying to use a combination of
devices, some including high power
devices to get out into the very rural
areas, these would be vehicle mounted
modems that would run at 1.2 watts,
which is currently not a standard but
it is processing through the 3GPP
standard process to hopefully become a
standard.

Speaking of terminals, they have some
Motorola provided terminals. To begin
with, they had an RFP out for
terminals. And they had the same
advice, that we need to be getting
band class 14 terminals provided as
soon as we possibly can so that we can
leverage the cost factor down.

We had a presentation from an
emergency physician, who really
pointed out some of the needs that
they have in Mississippi that are
unique to a rural environment, and
there are rural environments all
across this country.

He sort based his -- a lot of his
presentation on the fact that
Mississippi has some unique health
challenges. You know, they rank last
in obesity, that leads to a high
stroke rate, they actually had a map
showing instance of strokes that occur
across the state. I told people every
time they put up a map of Mississippi

-- I grew up in Alabama, and I kept
thinking the map was reversed.

This doctor was pointing out that from
the delta region up to northwest
Mississippi, it takes six hours to get
a stroke patient to a health center in
Jackson, Mississippi. And during that
time, if they have the access to
medical telemetry to send stats in
over a broadband network, they could
perhaps enable the paramedic to
provide some treatment on site, and
some treatment in transit that would
significantly improve that patient's
chance of survival, and that patient's
chance of having -- of not having
meaningful impairment post recovery.

So they have a real need and that is
why they are one of the members of the
17 member wireless communication
commission.

From a network standpoint, they're
designed to 256-kilobit at the cell
edge and that results in 5 or 6-mile
radius. They are planning to deploy
those additional sites and that would
give them pretty solid coverage based
on in the most rural areas, some type
of high powered vehicle mounted
device.

You know, the 1.2 watts is good, but a
vehicle also has a better antenna
arrangement so you get a lot better
bang for your buck there. In terms of
the cost, they're burning -- you know,
a couple of ways to look at that. In
one sense, it's costing about 150 to
200,000 a month. A lot of that,
though, is foregone revenue, because
they own these towers, and they're

obviously capable of supporting
multiple tenants. And they have some
offers from other wireless carriers,
who would like to get on those towers
but they can't really do that while in
they're in a state of suspension.
They do have some real out of pocket
costs, they're paying about 9,000 a
month for some transport to connect to
their statewide NOC for example and
that sort of thing, but in total, you
know, about 150, $200,000 is what they
see themselves foregoing while in
they're in the hold pattern.

Another timing issue, and we heard
this in North Carolina as well, is
their state legislature is about to
meet. January is the beginning of the
session, it runs until April. And
they need some funding from the
legislature to fund operations of the
LTE network, not the build out, but
ongoing operations, which are not
covered by the BTOP grant. And so the
sooner we can resolve this issue and
give them comfort that they can move
ahead, if that is the decision that we
make, the better, so they can go to
the legislature and say we have the
commitment that we can move ahead with
this, we need the funding.

So it is a real timing issue for us
and puts more of an emphasis to us
making a quick decision. But we need
to have completed all of our visits,
not that they depend on each other,
these funds can move around each
project stands on its own, but we need
to -- just like we discovered issues
in these visits, we need to be sure we
surfaced all of the potential issues
out there that we see in other five

locations besides the two that I've talked about here, so that when we do make the decision for what to do with each individual case, that that decision is well-founded and takes into account all of the potential issues out there.

We talked to them a bit about transfer of control, similar thing, they need an equitable arrangement not only for whatever equipment is being expended, but since they own the majority of these towers, there would have to be some type of commercial arrangement for the space on the towers and that sort of thing.

I did not attend the meeting with Adams County, but I understand the meeting there went well. They have four sites that they could have up in a month if we give them the go ahead, they plan to use principally in vehicle modems out in Adams County, they have a low cost structure because they own all the towers and they don't have any operating cost commitments with their vendor. They plan to self operate with their existing radio and technical resources on hand.

They are open to FirstNet coming in, operating their system later as are the other entities, I think.

And, you know, the indemnification may be an issue because their vendor is a combination of Raytheon and Joint Dynamics and they are concerned, they're a relatively small player, they do not have any real infrastructure in place in the commercial network, so they're

concerned about being stranded if we do go another direction with FirstNet, and that is reasonable concern of theirs.

So these are the three visits we concluded so far. They're been good visits, got a lot of good questions, got a much better appreciation for just what their concerns are and what their needs are, and we just need to move expeditiously to conclude what we need to be telling them.

Look forward to doing that.

We need to target probably the January timeframe to meet some of their -- to give them a decision. Any questions?

Chairman Ginn: Thank you, Ed. You know, on behalf of the rest of us on the board, we really appreciate the time and effort you and the committee have expended here. It is clear that you have had detailed discussions and presented back to us the kind of information we need to resolve the BTOP issue, and I think one of our issues over the next few months is to get these things resolved.

Any other comments here?

Voice: Yeah, Mr. Chairman, just I want to comment, it is interesting, I think it aligns with Craig's comments earlier that, you know, we need the nationwide architecture here, but we need to pay special attention to the local needs. So if there are more towers needed because of topography or the foliage even in this case, as Ed pointed out,

these issues need to be addressed because, you know, it is kind of make the locals comfortable, and I think that is a big goal of ours.

Chairman Ginn: You know, while we have national network, local customization is the principle.

So these organizations can really control their structure and understand how their network is operating at any point in time, so Craig and I have spent a lot of time on this issue and I think that's a design criteria that we're pointing toward.

Wellington.

Mr. Webb: I attended the Adams County site visit and I was pleased that I was on that site visit because it did give me a chance to see how the system would work in terms of one of the pieces that I was struck by is that part of Colorado is all flat, but then you hit mountainous region. And for this particular site visit, they have mountains, rural which is very flat and sparsely populated, which there are more problems with the sparsely populated than mountains, and the urban areas. And in terms of how long it takes to get four -- I think you mentioned on the Mississippi visit, for heart attack, strokes, things like that specifically for EMTS.

They also are absorbing some costs because of the suspension, and I came away with a couple of thoughts, is that, 1, the site visits also help us in terms of looking what the needs to be built in for a national system that

should be built in. And then the second piece that I came away with is for those areas where we can work that out, I think the sooner we can approve some of BTOP projects, I think it also builds a sense of more goodwill among the users at the state and local level to buy them into the national network.

Chairman Ginn: Right, right.

                  I notice -- yes, Craig.

Mr. Farrill: I was going to piggy back on your comment, Wellington, that, you know, one of the other things that we are looking for are some of the results of the early turn up and test. The systems will provide a lot of fruit to us in term early experiences. Like Ed's talking about the trees in particular, there are plenty of that same pine issue that runs all the way across to Alabama, Georgia. So this is a regional effect, so one of the things we hope to do is out R&D center is not far from Adams County, and we have an opportunity to drive some of our vehicles right over there and do some of that testing.

                  So we look forward to working with them on test and evaluation.

Chairman Ginn: I see that board member Terry Takei has joined us, welcome, Terry.

                  Any other comments on BTOP?

                  Chuck.

Mr. Dowd: Thank you, Mr. Chairman, just reporting out on our progress on the general manager issue, which I know is

of interest to everyone.

Particularly Craig because I think he would rather have somebody to yell at than being the guy who gets yelled at.

So, you know, trying to move as quickly as we can on this issue, I want to thank you Tim Bryan, who couldn't be here with us today for doing a lot of the work here that I'm now going to take at least some credit for, or get yelled at for, I'm not sure which, and Terry Takei for working on this effort, thank you, Terry.

So, you know, business was slow there for a while, in the first few weeks, we only had about five applicants. But right towards the very end near the deadline which was December 1st for applications, we had a bit of a rush and we got up to 27 applications. Appreciate that. They run the gamut from the commercial world to the governmental world to the public safety world. I also want thank Anna Gomez for helping out to try to kind of frame up for us the initial kind of vetting process, where we will be looking at some key characteristic, like national business leadership experience, public safety experience, governmental process experience, and, of course, technical expertise.

I think the process that we're looking to go through now initially with Terry Takei, and Tim and myself, is to look at these folks and try to go through this initial process, and try to vet it down to about 3 to 5 potential candidates.

Now, once that's done, and we intend to do that very quickly in the next couple of weeks, once that's done, hopefully by the beginning of the year, we'll be able to go to the board, to you and to the board with some recommendations. If there's anybody that's not in those recommendations that was an applicant, and somebody on the board wants them considered, I don't think there would be any objection.

Chairman Ginn: No objection.

Mr. Dowd: So that is our goal. I know Paul. You wanted get this thing moving sooner than later. We hope to, before the end of the year, have three to five candidates that we want to put through a vetting process with the board.

Chairman Ginn: Questions?

My comment is get it done.

Mr. Dowd: Yes, sir.

Chairman Ginn: This is a key part, I think, of our getting our organization in a structure that -- where we need to be. So I would hope the committee would continue to work very hard on this issue.

Okay.

We have a presentation here, I'm going to turn this over to Bill Keever in a moment, but before we do that, you know, just let me offer a simple conceptual concept of how the network

should operate in our opinion. Let's
just take an iPhone which provides you
some basic services and a capability,
and then the apps that ride on top
that iPhone allow you to the
opportunity to customize that phone
for how you live your life and how --
and the kind of applications that
drive you to a personal experience
that you have.

So, I think in simple terms, that's
kind of what we are talking about with
the network architecture, you can look
at the iPhone, as sort of the base
communications device, but on that,
what we hope to do is allow individual
consumers, individual public safety
units to download those capabilities
that serve their operation. It's that
simple.

And Bill has retained Peters Suh.
Some of us have had experience with
Peters. He is, I think, the most
renowned person I know in terms of
understanding apps and how they work,
and how we might basically embed them
in our structure.

So I'm going to turn over to Bill.
Let him introduce Peter, but I just
want to tell you, I think we have here
one of the true experts in the world
on applications and how they should
work.

Mr. Keever: Thank you, Mr. Chairman, I'm not sure
                   that I have to introduce Peters, you
                   have done a very good job. I might
                   mention the reason that you turned
                   this over to me is resolution 16
                   appointed Jeff Johnson as the user

advocacy officer, and you have done a very nice job of outlining his user advocacy, user requirements parts of his task and his state consultation outreach. So he is overwhelmed. The rest of the risk of tasks under his remit deal with applications and services and devices, which are the things that take this network that Craig has talked about and bring it to live, as you have explained.

And so Peters and I have been working on thinking about how to get that done. We have sent to the board a first draft of our project plan, which principally is about gathering data. And so without stealing Peters' thunder, I'm going to turn it over to him, and just say that we hope the takeaways are here that we don't have all of the answers, we don't even know all of the questions, so we are looking for all of the input that we can get. Jeff has already been sending us apps that he know that exists, so we are beginning to build the library. Peters is making a couple of visits this afternoon. We've heard that we might get the state CIOs to put out an all points bulletin for every public safety app they can find in their state. So we do not want to reinvent anything. We want to shamelessly use everything that exists, and just tailor it to our network. So that is what we hope Peters is going to describe for you, so Peters?

Mr. Suh: Thank you, Sam and Bill. And Sam, I am going to save that clip and show it to my mom, because she wasn't so sure about me earlier in the days.

So what I would like to do in this
presentation is a bit of -- it's going
to divided into kind of two section.
One is talking about the apps
environment from a macro perspective,
and that's really, as Sandy kind of
talked about, whether you're an
iPhone, Android, Google user, a
BlackBerry user, Windows Mobile type
of user in that area. How is it
constructed and how does that work.
And then hopefully, we have early
hypotheses on how that technology and
architecture can kind of fit in to
what we're thinking about from
FirstNet perspective.

Before we go into that, I think a
couple of comments is, one, as Laura
went over the NOI from the network
side, there was also comments from an
applications perspective, and there is
parallels on that as far as reaching
out, getting feedback, getting an
understanding at the local level what
needs to be done, things of that area,
and making sure you're gathering those
type of requirements. And for me, kind
of an early hypothesis, for us some of
the key stakeholders are obviously the
first responders, there are people at
the local, state, federal level who
manage the systems, and the
applications, because the data that
they have behind that is going to be
critical for us. Private citizens are
actually going to be users of some of
the applications, so we should be
adding them as kind of the key
stakeholders in this as well. And
then obviously, you're going to have,
from a technical perspective, you're
going to have the developer community
that we will need to tap into of we're

going to really drive the innovation,
other technical suppliers, and then
device manufacturers when we talk
about the costs from the NOI and
concerns that were raised there.

Ultimately, three is going to be three
things that we're going to want to,
again from a macro perspective, want
to focus in on. Technically, are we
doing what we need to do to deliver
the platform that's expected. But how
does that tie into the operational
requirements. And again, I will be
repetitive going into things like
operation security requirements of
that level, because that's going to be
driving it, because we will have, as
we talked about, kind of a central
design platform. This only works from
a local operations perspective,
hopefully I'll be able to highlight
that a little bit more.

And then tied to all of those points
is you can have a very long laundry
list of requirements, but what is the
budget, what's the business model
that's going to operate that, because
there is a maintenance portion of this
as well that we have to take into
consideration when we're developing
those as well, and hopefully for us,
we'll be able to highlight that as
well. So if we look at it just very
highly from again, kind of a private
sector, world, is the kind of key
components that drive this, how many
devices are out there, because the
number of devices is going to draw the
developer community, right?

So when we think about it, if there is
not a lot of devices, one, the per

cost per device is going to be
astronomically high, or
proportionately higher. And then
you're going to have a harder time
getting the developer interest in this
area, so we need to take that into
there. The economics, and again, in
kind of an iPhone Google world, what
they always talk about is nomenclature
of revenue share, how do I make money
in these type of areas. I think for
us, for a business plan perspective,
we need to think about and have that
business savvy and sense to that as
well. The other part of this may be
not on per application fee
perspective, but on the maintenance
side, how do you maintain it, and how
is that done and what is that
opportunity there as well.

So if you tie in those three, that
gives you a larger number of
applications. And again, one of the
things I think will be incumbent upon
to us look at is as much as possible,
can we use open standards, can we use
existing solutions that are out there,
and see if that is our starting point
and then see what we need to tweak
from there going forward.

Just talking about major categories,
you have kind of the FirstNet from the
network side, and we talk a lot of
about communication services.

And again, starting to read through
some of the materials that have been
published a lot of good work that has
been done there, you talk about voice,
and people think, well, I've got
voice, but the definition of voice is
being defined by comments in the other

areas are interactive voice
communication, noninteractive voice
communications, the immediacy, the
latency, things of that nature that
are there, ad hoc communities that
need to be setup depending upon a
FirstNet area.

We talk messaging. And again, most of
us are familiar with SMS or texting,
e-mail, blogging, and those areas.
And you've got the video, you've got
broadcast and you've got peer to peer.
But if you take those communication
services, those also translate into
applications, right?

So the parallel for that would be, if
people are familiar with from the
voice side, there is services like
Skype, Microsoft Skype solutions,
there's Twitter from the messaging
areas. So we can convert a lot of
those communications services into
apps, or we need to think about that
as well. The next four bullets that I
have listed are really just a starting
set that generate a bit of discussion,
but by no means is meant to be kind of
the defined areas.

But if you think about it, there's
public informational, so these are
things like CPR instructions, news
update, logistics information that you
want to push out there. That is for
the general consumption of goods that
could be available or should be
available to private citizens.
There's no security, there's no issues
tied to that. It's really kind of an
issue of how do we make that available
as many platforms as possible and make
that discovery of those applications

available as much as possible so
people are aware of what is available
to them as services that the public
sector offers.

Then there's what I call, for lack of
a better term, kind of internal
department type of solutions. Those
might be simple things like apps for
HR, scheduling, logistics, things of
that nature that are within the
department area.

There may be department data, and
again, this -- you will start seeing a
growing theme about security and
operations in those areas. How do you
like at crime records, medical
records, things of that nature, where
again security and privacy are going
to be of huge concern and things that
we need to take into consideration
there. And then you may across
department, which may tie in again
local, state, federal, multiple
federal agencies of databases that you
want to tie in overall.

So going back to Sam's kind of comment
about iPhone, and I apologize, for
those of who are technical, that I'm
doing this at too high a level, and
for those of you who are not
technical, that I may be getting too
technical. So I'll try to kind of go
somewhere in the middle. So using
kind of a parallel to what Apple's
done a brilliant job with their iTunes
and their ecosystem. If you think
about it, you can break it out in a
few components.

What Apple has done is they've created
a standard application development

environment which is for FDK software
development kit for the developer
community, and that gives them the
tools that they're developing for
iPhone, iPods, iPads, up to their Mac
series, a set of tools, support and
thing of that nature. And again, from
my perspective, from a first
responder, us being able to do that is
going to be important. And that,
again, is not for an outside developer
only, it could be for people within a
city, state, federal level to having
the tools to develop that. The more
we can standardize that, the more we
can make that easier, hopefully we'll
reduce the amount of time cost to
develop it and create the innovation
and accelerate the speed in which apps
can be developed overall.

So you have the developer kit, and
then you have got kind of a platform,
and this platform for that is two
components at a high level. And I'll
break this down more. One is kind of
the store, people think about iTunes
as a store, and that's kind of the
distribution side. And then there's
the other half of that equation, which
is actually the reporting side, so
that is the databases, payments, may
not use Mastercard, Visa, or American
Express here, but there are going to
be charge back methodologies, there
may be costing sides, there's clearly
going to be reporting auditing type of
things that we're going to have to
have factored in there as well.

And then you're going to have
standards based devices with, again,
app interaction. So again, if we're
going to provide as much value within

the solutions overall, my personal
view is the databases or the data
warehouses that exist across this
country are the things that we want to
tap into. So if we can provide first
responders with real-time information
in a concise way, that is where we can
provide true value to the first
responders.

So this is the most technical chart
that I will kind of go through. If
you conceptually think about how does
the network fit in to application
side. On the left-hand side, you're
going to have a lot of devices and
classes in there, and they're going to
connect, and again, from being more of
app-centric person than anything else,
is whether it's WiFi or the first
responders network or FirstNet, you're
going to connect in that area. And
then you're going to go to the
FirstNet application server. And a
lot of that is going to be validation,
security authorization saying you have
access and rights to those things.

Then you go into a data gateway.
Again, for me, one of the things that
I've learned over the years is you've
got a lot of great information systems
that are out there, but unfortunately
not all of the systems written on the
same applications tools and things of
that nature. So if we can normalize
that and provide API, application
protocol interfaces that connect that
in, and make that available as easy as
possible at the local level, because
again, the assumption that I have is
these local entities that are
supporting those databases are taxed,
do not have a lot of resource, don't

have a lot of time in that area.

So we have to figure out what we can
do from tools perspective of the way
we architect it to make that as simple
as possible to pull in that
information. I also assume that a lot
of agencies are going to have
different security operations
requirements. And again, going back
to the local operations event, we're
going to have to factor that into our
consideration as well.

So from kind of a block perspective,
you got users in a broad sense defined
on the left and you've got developers
on the right. And really, if you
think about this is you're going to
have this distribution of how you
distribute those applications. And
again, it's simple when you think
about a CPR app which is instructional
with that information. But if you
start thinking about spending a couple
of days with the Chief Dowd in the New
York Police Department, and some their
apps, how do you make sure that you
are authorizing the person -- and who
is actually doing the authorization
that says they should have rights to
these application. And those
application rights may change
depending upon the situation.

In a crisis like Sandy -- Hurricane
Sandy, you may want to turn that up
and make it more available under
certain circumstances, and throttle it
back, depending upon the where the
state of the emergency is. So you've
got to define it within that area. So
you've got to have that security and
authentications there.

Settlement, and again, I've talked
about settlement ties with how are you
transferring that, how we capturing
that from a finance and audit
perspective, how is that being
reported back, how can you make sure
that from every point that you are
capturing the security authorizations
and operations of that, because that
will also help us not only use it from
only a security perspective, but
operations and design, are we getting
the load factors, are we getting the
usage, things of that nature, are we
getting the fastest response on this
that we need to overall, look at that.

And on the right hand of the equation
is from a developer perspective -- and
again, developer is defined in a very
broad sense. These could be people
who work for the city, or federal,
state level, or they can be outside
developers. Either way, they're going
to have different clearances,
different rights and things of that
nature, and we have got to factor that
in as well.

And making sure that they're
registering, we find out and validate,
are they who they say they are, how do
you know that. That is that process.

And how do you make sure it's uploaded
to this area? Because again, if we are
effective, we don't necessarily want
Iowa bombarded with New York city
apps, just a guess, right? You want to
provide this in an efficient way
overall. No, no, no, we want them
all. But we need to have that thought
process in there as well when we think

about the platform.

So this chart is just to illustrate
again when we think about what keeps
me up at night the most about how do
you design it is, if you look at the
upper right hand quadrant, you can
have again CPR app, which is going to
have no security, it's going to be
made available, so it's going to have
the broadest reach. And actually, if
we do a good and effective job, we
want to make this available, and make
people aware from a public service
perspective that these are
applications that can help them in
certain situations overall.

Unbeknownst to me when I was
researching this stuff, you know, the
FBI through their website, has an FBI
ID child app, right, and that might
have an arrow, but again, there are no
securities that are tied into that,
there's an EMS fire ones that Jeff
Johnson provided. Again, there's no
security, but it might have a narrower
reach overall. So again, for me, this
is a bit, how do you set up the
categories, how do you make the
discovery as easy as possible for
those categories.

It is, again, akin to you as a person
who is using a commercial mobile
phone.

How do you find apps that are relevant
to you, right?

And in my mind, we need to have that
same kind of concept from a discovery
perspective, make that as easy as
possible. Then you go into the kind

of lower left hand quadrant. And
that's where things get tricky in the
sense of, again, what are the security
requirements that you have in there.

How does this then tie into -- you can
have security requirements that are
department based, again, using one
data point in Chief Dowd, what New
York has and some of the apps they
have, they were demonstrating apps on
a BlackBerry with VPN connection that
was on browser side, right? And so you
had multiple log ins and things of
that nature. And that's New York City
police data, to my knowledge, was that
area. But again, you can have
instances where you pull in multiple
databases, and then how do you get
authentication, how is that signed off
on all parties overall. If you lose
that device, how that is managed
across the board?

So, again, a lot of the requirements
contemplate those things. The actual
execution, making sure that is
managed, and that's again reported
because from a FirstNet perspective,
the operation management of that is
not something we are going to be able
to do at a local level. So this is
where we clearly have to work with the
local entities to make sure we're
doing this efficiently overall.

Kind of a segue, then, is we think
about device classifications, and
again, I'm very sensitive to the
comment Laura said about the NOI's and
devices, things of that nature. And
again, through my previous life and
experiences, if you try to develop a
purpose device for a unique specific

situation, it obviously can be done
from a technical perspective, but the
cost could be extraordinary in those
areas. And is there also a time lead
to make those things happen.

So if you look at the columns here,
what this is meant to illustrate is, I
think there is a lot of apps based
upon really scratching the surface
from what we've been able to find
already, there's a lot of local
entities are using commercial devices
for some of the apps there. So my
view and perspective is let's kind of
leverage and draw on that as much as
possible, and use that as our starting
point overall. And then what you
have, and not going row by row, is
looking at mainstream portal,
mainstream in vehicle, customized
devices, making sure as we go through
the requirements process, that we're
looking at that and how we fit that
across the board, okay?

So, there's a set of statement of
requirements that are out there, and
this slide is rather busy. But again,
what I want to say is there's been
enormous work by a lot entities that
have requirements that are out there.
And we are in the process of capturing
them. And my view of what the
documents I've read so far, we can
clearly meet or exceed those
requirements. The key for us, though,
is some of the definitions are a bit
broad and so how you execute or
deliver that requirement can have
operational consequences.

And so again, this is why I keep going
back to us going to the requirements

level, those people who are going to
be running these systems and managing
it is going to be absolutely critical.
Did you mean this when you said this
is your security requirement or not,
because it's going to have an
implication for them as well. So
we'll go through this and make sure
when we go through the series of
interviews and requirements that we're
gathering that we've got that built in
there as well.

So the process we are talking about
that kind of Bill discussed is for me
is again hopefully the first slides,
you can say you have architecture and
kind of a process that has been
designed, kind of in the private
market, again, a la Apple and Goggle
and things of that nature. And those
major building blocks, I think, are
germane or relevant to this area.

But until we do the this local
application inventory, and
specifically get the detailed
requirements in those area, because
again, you can design anything but if
it's not operating, it's practical in
the operations side, it's not going to
get used, right? And again, I go back
to the point about the business model
or budget side is, what does it cost
to maintain and operate those things
as well. It has to be tied in there.
So our first step is really capturing
that inventory and detailed sets of
requirements, and making sure we can
normalize that as much as possible.
Where they can't be, call that out, so
again, we're making sure that people
are aware there are differences, how
is that impacted? Does that cause any

problems or not, and we'll call that
out overall.

Once we have that, then we can start
developing a high level, what does
that platform architecture and road
map look like? And again, in my mind,
it is not necessarily slash cut to one
solution, but a platform that evolves
and develops based upon several
things. One, how is that network
evolving, how are the device roadmaps
in there, how are the requirements
tapping in there, what have we
actually done to actually access and
make available to the local data
warehouses and information that exist
in their systems overall, so that will
evolve.

And that then becomes the also tied
very close hand and glove with the
user device specifications and roadmap
as well. And one of the other things
I would think that we should try to do
is think about when we think about
developing this and the tool kits and
things of that nature is provide
guidelines or suggestions from a user
experience perspective. Because there
is a good potential that we can
provide enormous detail, but these are
relatively small form factors where
people are going to be under enormous
pressure.

So us reducing the number of clicks,
the amount of information, providing
it at top level is going to be more
critical overall, right? So how do we
see if we can avoid having seven
different log in for them every time,
going through seven different menus,
before find the category they need,

and then I need to dig in overall. So
that's one of the other things that I
think we should try to capture in
there.

I've talked enough about kind of the
applications door and the business
model and how do we make sure we are
very disciplined about what we're
building, how do we maintain that
overall.

And again, over and over again, what I
talk about is security architecture
and what the road map is. There is a
lot of security solutions that are
going to be out there, we will have to
look at what are the opportunities,
what's required again, based upon the
data warehouses that are out there at
a local level, what are the
implications associated with it?
Because there could be systems that
tax the -- from a response time, or
things that may be operationally
difficult to manage that, again, we
need to call out overall.

Which then goes into the last point
is, how are we developing that
operation support?

Because again, my perspective is, a
user and the users that we defined are
the stakeholders that we called out
earlier have got to be supported
somehow, or again, they are not going
to use this product. And this
something that we need to think about
full circle overall. So again, the
box I kind of called out -- this
broken record is, for me, assumption
is we're going to do to the subject
matter experts. And the subject

matter experts are the people who actually use these devices, right? Let's really get their requirements and make sure we're capturing that information, let's look at the people who are supporting them at kind of that local level.

And let's gather what's been done already, because already you can we there's been a lot of really excellent work that has been created, so we should be shameless about taking, copying, reusing whatever that's out there to move this along as quickly as possible and we'll provide the reports as we go along.

Chairman Ginn: Just a comment here, I think the broad idea here is how do you kick start innovation?

Not only with Peters, but at the very base level of public safety. And how do you get public safety employees at every level begin to think about how do I improve my operation and perhaps if I develop an app that I can load into my system and I can improve my operation, and then I can make that available to every other public safety agency in the United States.

So I think what we want to do here is build a culture of innovation. And to do that, I would anticipate that we would pick out heros, people who do just outstanding work, to meet a need that is accepted across public safety, and we reward those people in some way through publicity or a set award or allow them to go to a development conference and talk to other public safety agencies about what they have

done, and you can do it, too. I guess the principle here is: We want innovation at the very lowest level in public safety because that's where you get a lot of solutions.

They understand their issues better than we do. And if we can get the cycle of innovation working, and we have the infrastructure to implement it that you just heard about, I think we will be surprised how creative people really are.

That is kind of my take on this.

Any other comments?

Mr. Dowd: Again, I know I thanked them earlier, but I want to thank Peters in particular also, that came onto the team and spent two and a half days doing a deep dive on how we are using applications to make ourselves more efficient in the NYPD. And as Police Commissioner Ray Kelly once said, we are large organization, 50,000 people, and we don't know what we know. So the loose analogy here is all of this information, all these capabilities are available. We just need to make -- put it in a form that makes sense and be able to share the information.

Chairman Ginn: That is exactly the point, isn't it?

They are way ahead of most public service agencies -- public safety agencies. And so if we could get your applications available to public safety across the country --

Mr. Dowd: I will speak to my boss about that. But again, the point of it is that

public safety is noncompetitive, and
                         does want to share what it knows, and
                         so we've done some good work,
                         obviously, at the NYPD, but there are
                         other people doing this work too. So
                         we want to get best in class from
                         everybody.

Chairman Ginn: Bill, comments?

Mr. Keever: I think Peters did a wonderful job of
                         summarizing where we are and we have
                         had a lot of discussion with the board
                         on this, and I think we have gotten
                         their go ahead that we are heading in
                         the right direction and so we're kind
                         of off and running.

Chairman Ginn: Any other comments?

Mr. Farrill: Peters, I just wanted to comment, I
                         think it's an excellent piece of work
                         and being able to transfer that
                         innovation from the world of iPhones
                         and computers is an excellent way to
                         get at it. The device side of this --
                         one thing I just want to say to those
                         on the webcast is that we do have
                         focus on rural. And in a rural
                         application, the situation's quite
                         different. These people spend a lot
                         of time in their vehicles.

                         And so one of the things that may not
                         have popped out in Peters'
                         presentation was idea that there are
                         personal communications devices and
                         there are vehicular communications
                         devices. So when he talks about
                         devices, you are really referring to
                         both, things that in your car that
                         enable you to communicate while you're
                         in you car or in your fire truck or in
                         your ambulance or in your helicopter,

and then things that are on your body.

And when you think about fire in particular with the unique clothing and situations one of the things we have yet to experience, but Jeff Johnson says he's going to do this to us is put us in fire suits and hit us with flame throwers. Sounds pretty interesting, I haven't signed up for that yet, but it sounds like a wonderful idea. But the communications needs that a fireman faces are quite unique. So I think part of what you will see here is a division in devices that go to things that are uniquely police orients, things that are uniquely fire oriented, or things that are uniquely oriented towards EMS, things that are uniquely marine oriented that go to the Coast Guard or border control. So as we're looking at this, we're taking the broad swath, and it really is devices that are both for the vehicle and for the person.

But because of the fact that we are using some satellite and some terrestrial that also changes the antennas and stuff for those devices, so the other big thing, when I read the word device, I also read accessory. So if I need a microphone on my shoulder or if I need an antenna on the top of the mast of my boat or if I need a dish antenna on the top of my fire truck, those are accessories. So I think when we keep this in mind, everything Peters presented, if you expand the plate that that runs into, all those devices could be even more broadly identified for public safety.

So that's part of what we're sync'ing together on network and device side.

Chairman Ginn: Kevin did you have something.

Mr. McGinnis: Thanks, yes, I just would like to encourage Peters and that work to really find a tie with the public safety advisory committee. I think that is going to be a really good place to flow information into the process.

Voice: Thanks, Mr. Chairman. You know, part of this, Peters was looking for an inventory -- and Bill were looking for an inventory of the possible apps out there. We just started on that. If you are aware of apps, get those into us, so we can add them those to the inventory.

And I think to Craig's point, we are not looking just for specific apps that are good for the fire fighter, cop or paramedic, we're looking for the ones that make us more effective at the street level. There's an app out there, it's a free app, San Ramon Fire Department in California built an app that creates a relationship between everybody that they certify in CPR and the dispatch information for somebody that may be having a heart attack. So you get citizen by-standers responding to a heart attack patient while the fire department paramedics are in route. That isn't particular to a firefighter/paramedic, but it is particular to our purpose of public safety. We're looking for that kind of innovation as well as those

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                    things specific to the --

Chairman Ginn:      We would like thousands of those.


Voice:              Absolutely, thank you.  And Peters,
                    thank you for your work, and Bill,
                    thank you.

Chairman Ginn:      A final item, I'd just like to call on
                    our acting general manager for any
                    comments he may have.

Mr. Farrill:        Thank you very much.  Well, I have
                    been on this job a few minutes and it
                    feels pretty good so far.

                    But just wait.

                    So I would like to talk about a couple
                    of things that are going to be near
                    and dear to us right here, is thanks,
                    first of all, to NTIA staff who's been
                    doing a great job of supporting us.
                    Steve Fletcher over here has been
                    detailed to us and we're excited to
                    have him as part of the team, Anna
                    Gomez been very, very helpful, and
                    there's many other names I can name.
                    But I want to first say that in terms
                    of staffing this organization up to
                    format is really what I'll be focused
                    on right now.

                    Forming a business from a start up,
                    one of the key areas is financial, and
                    having the kind of financial people
                    that we can bring to do planning,
                    analysis and do the controls.  We're
                    very keen on getting visibility of all
                    the financial operations and setting
                    up for our near term operations.  And
                    this will be useful to the ultimate
                    successful general manager candidate,
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as he or she comes along the line. So
first order of business for me is some
hiring in that area.

These may be folks who are detailed to
us from other parts of the government
or detailed to us from Commerce,
that's going to be probably our
fastest way to move a person into a
position and get some help. So we'll
be reaching out to a number of
different folks in program management,
in acquisition and procurement, in
finance, to bring in a few
professionals to get us boot strapped
here, if you will. And then we will
be in the process of actually doing
the more formal recruiting, depending
how long it takes to get general
manager candidate in. If that is
quick, hopefully we'll do as much
preparation for that person as we
possibly can.

The second thing is the consultation
area that Jeff and all of us are a
part of. I just want the board to
know that all of us will be involved
in this in some way. We'll probably
be asked to go out and represent
FirstNet in various states where we
have interest and states where we can
make a difference.

And we're grateful to the National
Governor's Association for some great
ideas in that regard. And we plan to
reach out and get close to the states
here as well as the local entities
inside those states, and also to the
territories. So that whole process is
in work right now, it's ramping up
very quickly. Jeff's doing a great
job at that, but that is where we are

resource short again, is in the area
of how do we get out to the states, so
several of us on the board will get
tapped on the shoulder to say, we need
you to go to Iowa, or need you to go
to Kentucky, or need you to go to
Minnesota. And so those will be
coming along as we look forward.

The other thing for me really is as we
put this comprehensive business plan
together, if there are things that you
all feel need to be into that plan,
I'm only a phone call, e-mail, text
away. So I want to be open and
available to you, so if there's
anything that's not going right, I'm
sure I will get that faster than the
going right portion but, I'm open to
both, both the going right portion and
the not going right portion. So
before you take your next breath, give
me a call, text, and e-mail, and I
will respond as quickly as I possibly
can.

Our other big effort is we will be
starting to issue some RFIs for more
information. There's quite a bit of
gear that we will need to purchase,
but before we start jumping out there,
we want to look at what's available in
the industry.

And we are aware from conversations
that there are dozens and dozens of
companies that would like provide us
with equipment, and software and
applications and services. So that is
not lost on us. And we want to make
ourselves open to find out about
those, but we will be kicking out RFIs
here probably very first part of the
first quarter, so those are a couple,

three things that will be high on the slate.

Chairman Ginn: Thank you, Craig, any other comments from the board? Jeff.

Mr. Johnson: Thank you Mr. Chair. Just kind of a general comment. I think to the watching public is I'm assuming everyone on the board is feeling a little bit like this, I'm getting very meaningful contact from people that have information or they have a need related to FirstNet. And I find myself all too often saying, I'm sorry, I know that's important, but it's not the most important thing this week.

So I guess I'm just asking for everybody's patience. There is so much that is important that we have in here related to this network, but we're really trying to focus and prioritize our time and our meetings associated with those things that get the professional staff in the door, that can really start to grab this thing and wrestle it down. And I just want to offer kind of a half hearted apology for not having more hours in a day and we're just struggling with the priorities.

Chairman Ginn: Let me give you the other side of this equation, you know, this is our second board meeting. We have been in business for three and a half months. And I think by any measure, we've taken the ball a long way down the road, so I think that is the other side of it.

I understand that there have been

dislocations and miscommunications, but I think we've really gotten a lot accomplished in the last 55 or 60 days. So I want to thank the board for everything.

Let's keep working together, let's keep that ball moving down the field.

And I guess, we will see you in two months.

Mr. Farrill: February.

Mr. Webb: Sam, before you get away, before we get away, I'd like to -- because I'd be remiss if I didn't do this, both Sam, you, and also to Ed, that the other members of the Adams County site visit team, Tim Bryan was outstanding in terms of asking all of the technical questions to the site -- to the staff there in Adams County. And Tim Bryan and it was great having him there along with Lance Johnson. And also Emil Obrick from the Bolder lab. The last two parts of information is, I was on a call with Sarah Morris with Senator Bennett's staff from Colorado who is mostly concerned about coverage in rural areas, and to make sure that we were covering that. And then the third one, just as my own personal thematic and I think this is self-serving but you will understand it.

Five governors are former mayors, Alaska, Connecticut, California, North Carolina, Colorado and Maryland, six, so as we are talking about end users, in many cases, local government mayors have more end users than states.

I know Colorado has more Denver police

than highway patrol and Chuck has the same thing in New York City than there are highway patrolmen in the State of New York. So just from my former comrades, when we're talking about governors, don't forget these local government mayors, folks.

Chairman Ginn: Any other comments?

Meeting adjourned, thank you.

(Whereupon, at 11:10 a.m., the meeting

concluded.)