TRANSCRIPT OF PROCEEDINGS

IN THE MATTER OF:)
)
EMERGENCY RESPONSE)
INTEROPERABILITY CENTER)
PUBLIC FORUM)

Pages: 1 through 69

Place: Washington, D.C.

Date: March 2, 2010

HERITAGE REPORTING CORPORATION
Official Reporters
1220 L Street, N.W., Suite 600
Washington, D.C. 20005-4018
(202) 628-4888
contracts@hrccourtreporters.com

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

IN THE MATTER OF:)
)
EMERGENCY RESPONSE)
INTEROPERABILITY CENTER)
PUBLIC FORUM)

Commission Meeting Room
FCC Building
445 12th Street, S.W.
Washington, D.C.

Tuesday,
March 2, 2010

The parties met, pursuant to notice, at 2:00 p.m.

BEFORE: JENNIFER MANNER, Deputy Chief, Public Safety and Homeland Security Bureau

APPEARANCES:

JAMES ARDEN BARNETT, Jr., Rear Admiral (Ret.), Chief, Public Safety and Homeland Security Bureau
CHRIS ESSID, Director, Office of Emergency Communications,
DHS Jeffery Goldthorp, Chief, Communications Systems Analysis Division, PSHSB
DERECK ORR, Program Manager for Public Safety Communications, Office of Law Enforcement Standards, NIST
ZIAD SLEEM, Associate Division Chief, WTB Spectrum and Competition Policy Division

APPEARANCES (CONT'D)

Registered Speakers:

HARLIN MCEWIN, PSST/IACP
BILL CARROW, APCO
CYNTHIA COLE, Cynergyze Consulting
JONATHAN DELONG, Zos Communications
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Manager, CT. DPS
GIL ARMENDARIZ, Chairman, Sy Tech Corp
JOHN DOHERTY, VP Engineering, GEOCommand
PRUDENCE PARKS, Utilities Telecom Council
STEVE O'CONOR, NENA (First VP)
KEVIN FOOTE, Director, National Emergency

Internet Deflection System
STACEY BLACK, AT&T

P R O C E E D I N G S

(2:00 p.m.)

MR. BARNETT: Good afternoon. My name is Jamie Barnett, I'm the Chief of the Public Safety and Homeland Security Bureau here at the FCC, and we really appreciate your presence here to talk today about the creation and the functions of the Emergency Response Interoperability Center, or ERIC. The fact that the acronym is ERIC is purely coincidental that Jennifer Manner's husband's name is Eric, it was not named after him.

But we are excited about the possibilities of what this center can do. Now, I'd like take this opportunity to thank our partners in this endeavor, and truly it has been a partnership in coming up with the concept, particularly the Department of Homeland Security Office of Emergency Communications, NIST, and the Department of Justice. We're excited about these partnerships and the collaborations developed among our agencies, and we're looking forward to working together on these challenging and crucial public safety issues.

Now, today's forum is important because even though there is a consensus on the overarching ERIC concept there are still many details to be worked out.

Your input today and in the future, quite frankly, will help us especially in developing the architecture of ERIC, will help us identify the issues that need to be resolved, gaps that need to be filled, and obstacles that we need to overcome.

Our vision for ERIC is that it will become part of the nationwide public safety communications structure. We're not looking for it to replace any agency or entity that currently is in place, we're simply looking to assist an already vibrant community that's working day in and day out to improve public safety communications. ERIC will enhance efforts to move public safety communications forward as we strive to implement broadband technologies and innovations.

In addition, ERIC will facilitate a focused approach as we work towards creating and implementing a nationwide wireless public safety broadband network. It will strive to develop common technical standards for interoperability on the public safety broadband network from the start and to update these standards periodically as broadband technologies evolve. It is important that we get this network right from day one, and I've emphasized over and over again we really get one shot at this, one at-bat, one swing to make sure that we get it right. Having an entity totally focus

on this will help us achieve that goal.

Today we hope to touch on the following topics. Technical requirements for public safety broadband networks to ensure interoperability, roaming for frameworks for public safety users, and priority access for public safety users. This of course isn't an all inclusive list, but these are important topics which we want to stay focused on as much as possible today. I realize there are other things we could be talking about.

Again, thank you for taking the time to be with us today in person. With those of you who are on the web, we appreciate your interest in improving communications for our nation's first responders. The importance of reliable, interoperable, ubiquitous communication for public safety cannot be overstated. Now I'd like to turn it over, the podium, to Chris Essid, the Director of DHS's Office of Emergency Communications, for his comments. And once again, Chris, thank you for your strong partnership with us.

MR. ESSID: Good afternoon, Jamie, and thanks for having me here. I've been the Director of the Office of Emergency Communications within the Department of Homeland Security for the last two years. Before this job I served as Virginia's

Commonwealth Interoperability Coordinator in the Governor's Office, and what seems like a lifetime ago I was in the U.S. Army as a Military Police Officer. So I've experienced the issue we're talking about today at the state level as a user, and now as a Federal manager, so, you know, a wide variety of touches on this subject.

The U.S. has pushed hard to fully resolve the problems that keep responders from being able to communicate with whom they need to when they need to. Per our legislative mandate, the Department of Homeland Security has driven the national effort to improve emergency communications for our public safety and first responders, enhancing operability, interoperability , and continuity of mission critical voice, video, and data communications for the people that we depend upon every day to save lives.

We have aggressively moved forward to integrate broadband and next generation technologies into the National Emergency Communications Plan, we have increased technical assistance that directly targets state and regional goals, we have created senior level coordinating bodies such as the Safecom Executive Committee and Emergency Response Council, and most recently the Emergency Communications

Preparedness Center.

These groups have already moved forward to remove key interoperability barriers, and we are working to coordinate all facets of emergency communications. Public safety communications interoperability is a complicated issue that has changed over time as technology and cultural shifts enable greater capabilities. One thing I've experienced first hand is that interoperability in emergency communications, the problem is 90 percent coordination, 10 percent technology.

Broadband is one such tool that has added a whole new dimension to communications. It can greatly enhance the abilities of emergency responders to accomplish their missions. However, our focus on training and exercises, standard operating procedures, and proper governance, all these activities we call the coordination activities, is just as relevant for the new technologies as it is to existing LMR technologies, as it will be for future technologies that haven't even been invented yet.

The public safety community has been using wireless broadband applications for some time, working to understand how these data tools complement mission critical voice capabilities. Some of you in this room

have been working on the development of a public safety broadband network for over a decade, and it's our responsibility to ensure that we deploy this smartly. The Emergency Response Interoperability Center, ERIC is one way to help us do this in a coordinated way.

Already DHS has partnered with the FCC to begin the process of establishing ERIC to adopt and enforce standards for a public safety broadband network. To demonstrate our commitment we are already strengthening our governance structures, advisory groups, and grants and technical assistance mechanisms that will ensure the national network meets public safety's needs. We look forward to working closely with the public safety community and the FCC to make this network a reality. Thank you. And next I would like to introduce Jeff Goldthorp of the FCC.

MR. GOLDTHORP: Thank you Chris. Jamie was saying I think that the FCC is as committed as we've ever been to the vision of a nationwide public safety network. Times change and our methods change. Let's talk for a minute about the facts on the ground today, and then we'll get into ERIC and what we have in mind for ERIC, how we think ERIC can help bring about this network that we aspire to.

First of all, we're seeing around us today the deployment with vigor of a new generation of wireless technology, 4G technologies, in the commercial realm, and the 700 MHZ band is happening as we speak today. And the deployment of these technologies give public safety an opportunity to benefit from the features and the functions that come with them as it relates to broadband. Also gives public safety the benefit of a whole different cost platform than what public safety has been accustomed to. So there are benefits, rich benefits that come with the deployment and the emergence of a new generation of commercial wireless technology.

The second item is that as we look around us now, a number of public safety jurisdictions are very interested in moving forward now, today, in deployment of broadband public safety networks in their jurisdictions, that's a fact. So the question we have to ask ourselves is, is it possible for us to create a seamless, interoperable, broadband nationwide network -- that is, a network of networks, not a homogeneous network, the one that we had imagined a few years ago, but a network of networks -- is that possible?

Absolutely it's possible, it's been done before, and it can be done again. It may not have

been done in public safety before, I'm not thinking about public safety in the instance I had in my mind right now, but it has been done and it can be done, there's no technical reason why it can't be. So we have to decide, what do we need to do to help make that happen? And that's where ERIC fits in.

There is a need for an entity to try and harmonize the actions of public safety entities as they go forward in this new quest. Where those actions need to be harmonized to enable interoperability, that's the role of ERIC. ERIC's functions will tend to be technical in nature, as I'll describe in a moment, operational in nature. But the general idea is to try and harmonize the actions of actors that wouldn't necessarily otherwise be harmonized where that needs to happen.

The Emergency Response Interoperability Center will be formed at the FCC to do two things. First of all to adopt technical and operational framework to enable interoperability for public safety broadband networks, and second of all to apply and enforce those requirements by way of whether it be FCC rules or whether it be license and lease requirements or whether it be grant conditions. So there's those two aspects to what we see ERIC and the FCC doing to

try and make this happen, to try and bring this all together.

ERIC is going to be working collaboratively with our Federal partners and with the public safety advisory committee that we'll be setting up with the folks that are sitting here, with the OEC at DHS on matters such as outreach and best practice development, with NIST on the identification, development, and participation and standards bodies and verification, testing and validation. We're also forming a advisory committee with public safety to advise us on matters that are knowledgeable to practitioners in that space. So we're not doing this alone, we're doing this in partnership with public safety and with our Federal partners.

We can see ERIC getting into a number of specific areas right off the bat. Some of them Jamie mentioned, but let me just touch on them now. I'm sure they'll come up later and we can spend a little bit more time. One that obvious one is, when you've got a first responder that is responding to a scene of an event in a different jurisdiction, needs to communicate not only with responders on the scene but even to have access to services and applications back at home.

So there's a need for roaming and a need for first responders to be able to move about between jurisdictions in a way that we're not as accustomed to today. So roaming, and that's a technical issue as well as an operational issue. Technical requirements are needed and operational requirements are needed. There needs to be interconnectivity between the networks of the different public safety jurisdictions that are being set up. Those networks need to be able to talk to each other, connect to each other, communicate with each other. And that is sort of a feature or a function that underlies roaming, you can't have roaming if networks aren't interconnected. So that's necessary, and maybe requirements for that.

Priority access is another that Jamie mentioned. We envision a world where public safety will have access not only to its own spectrum in the band and the 700 MHZ band, but to possibly other commercial carrier spectrum in that band, and that would require some requirements for priority access -- how does public safety access, how do first responders access those bands, and what are the technical requirements for doing that.

And then the final one that I'll mention today, a category of requirements are security

requirements. So, for example, authentication, when you enter a new or go to another jurisdiction, how do you join that network? How does the network know that you are who you say you are? What's the identity management protocol to do that? And that's the authentication problem that needs to be solved for this problem.

And also encryption, and that'll be the last one that I'll mention today. For security purposes there needs to be some common standard for encryption. If everybody's encrypting their communications differently then nobody except the folks that are local will be able to unencrypt them and use them. So that's just sort of a snapshot of the things that we see ERIC doing.

We see this stuff, or these requirements, rolling out over the months to come, and we're looking forward to working with the folks here and with all of you to make this happen. I'm eager to move forward with this as I'm sure all of you are as well, and I thank you for your time today. I'll turn it over now to Dereck Orr of NIST.

MR. ORR: Thanks, Jeff. Real quickly, my name is Dereck Orr, I'm the Program Manager of Public Safety Communications Systems at the National

Institute of Standards and Technology. I am also the Program Manager for the Public Safety Communications Research Program out in Boulder, Colorado, where we run a joint program between NIST, NIST's Office of Law Enforcement Standards, and NTIA's Institute for Telecommunications Sciences. And what I'm here to talk about today -- are these mics going in and out?

What I'm here to talk about today is, one, for people who aren't familiar with us, because we are kind of out in the hinterlands out in Boulder, we are focused on public safety requirements, standards, and helping public safety understand how technologies address their specific public safety needs. That's what we've done for over a decade now, and that's our particular focus. And so the evolving issue of broadband for public safety is a perfect issue for us and one we're very interested in, and we're been working along with our public safety partners for a while now in figuring out how best we could help public safety prepare for this new wave of technology, which is the broadband network.

And so what we've determined is, as public safety has really kind of congealed around the idea of LTE as a standard that they want to embrace for broadband, LTE is a bleeding edge technology, I

wouldn't even say it's a cutting edge technology, it's a bleeding edge technology that even from a commercial perspective not many people have any familiarity with or knowledge of. And so there are some pilots and demonstrations occurring around the world right now for LTE focused primarily, as you would expect, on commercial applications and use. There's nobody looking about how this new technology is going to work and apply for public safety's specific needs and requirements.

So what the Public Safety Communications Research Program is going to do in Boulder, and it's actually going to be announced tonight in a published Federal Register Notice that comes out tonight, is that we are proposing the development of a demonstration network in Boulder Colorado using our Table Mountain radio free quiet zone to work with any interested manufacturer or vendor or industry participant to put together a demonstration LTE network and actually look at it from the perspective of public safety's specific requirements and applications so that public safety can understand exactly how this new cutting edge technology is going to work for their specific purposes.

We don't want to recreate anything that's

going on in commercial tests, we want to have this be focused specifically on public safety applications and services. So issues, core issues, to public safety, and one reason they looked at LTE, is priority access. Well how is that going to work? And let's run through some public safety scenarios and see how this works so public safety is well grounded when this stuff is deployed in their jurisdictions and have level set expectations of what they're going to get from this technology. That's the whole purpose of the demonstration project.

We're looking for open research, we want the outcome to be open to all, we want this to help and be beneficial to the ERIC. As obviously a consumer of this information, we want to work closely with the PSST, our public safety associations. We will be utilizing as a core document the NPSTC public safety broadband requirements document to drive what we're going to look at from an application and services perspective. So we really are looking for this to be a very open research demonstration project.

So I appreciate the opportunity today to give people a heads up on this so that you understand what we're going to be doing out in Boulder, and we're I'm sure going to be collaborating with a lot of

people in this room, or I hope to be. So look for the Federal Register Notice tonight, and it'll announce the first meeting and also announce how interested industry participants can begin to contact us and participate in the program. So thank you very much, and I'm going to turn this back to Jennifer.

MS. MANNER: Thank you very much, Dereck. And I'd like to also extend my welcome to all of you for attending today. ERIC will not be successful unless we have the input and the support of public safety, our Federal partners, and industry, so we really appreciate you being here today to share your insights with us. I got the lucky job of moderating this event, so I'm going to lay out the ground rules for folks, and we are very much looking forward to hearing what you have to say.

We've had eleven people preregister to make remarks, so we're going to go in the order that they've signed up for remarks, so I'll call each one up individually. Deandra over here -- raise your hand, Deandra -- is our timer. And just to make sure we have enough time to get through everyone, Deandra will be running the clock. We'd ask our speakers to speak from the podium over there and to actually talk directly into the microphone just so everyone can hear

what you're saying.

You'll have about three minutes to make your remarks, and then our panel over here, which is really made up of folks who have been integral to the creation of ERIC, are here to respond, answer questions, and talk to you a little further about ERIC, and let me just run through who is at this table. First we have Ziad Sleem from the FCC. Dereck Orr you've already met from NIST. Jeff Goldthorp from the FCC, Behzad Ghaffari from the FCC, David Furth from the FCC, and Chris Essid from DHS, and of course Jamie Barnett.

What I would also ask is that our speakers when they stand up if they could please state their name and identify themselves just so everyone knows who they are. Following this, depending on our timing, we may open the floor to questions, but it'll really depend on how much time the discussion and the presentations take. So with that, I'd like to call up our first speaker, Harlin McEwan.

MR. MCEWAN: Thank you, Jennifer. I am Chief Harlin McEwan, I am Chairman of the Public Safety Spectrum Trust, and I'm also Chairman of the Communications and Technology Committee of the International Association of Chiefs of Police. I

speak today on behalf of the Public Safety Spectrum Trust, the nationwide 700 MHZ public safety broadband licensee. The PSST has long supported all efforts that will lead to the expeditious deployment of a nationwide, interoperable, wireless broadband network for public safety.

The PSST has worked closely with all public safety groups to establish a collaborative process and a consensus position on these issues to better advance our common goals. We welcome the opportunity to work with the FCC on the ERIC proposal in order to enhance these efforts to best meet public safety's critical needs. The ERIC proposal does raise some difficult questions and concerns, however, and which we hope do not become impediments to public safety's urgent need for the long awaited interoperable wireless broadband network.

The PSST questions whether ERIC may be taking on a broader mission than necessary. Given how long we have waited, we fear any efforts that may further complicate our goal of bringing robust and reliable broadband services to the public safety community. In addition, we question whether the proposed ERIC framework may create some duplicative activities and responsibilities that could

inadvertently hinder the development of wireless broadband services that meet public safety's needs.

For example, do the new ERIC boards and committees have missions that overlap substantially with existing active organizations? Notably, we are concerned that the proposed public safety advisory board, which the FCC says will be broadly representative of the public safety community, will be drawing on the limited volunteer resources of the PSST, the National Public Safety Telecommunications Council, and the Safecom Executive Committee as an example.

Do some of the proposed responsibilities for ERIC duplicate efforts that have already been addressed by public safety and industry members, including interoperability frameworks, technical standards, roaming and priority service? Such efforts have already been submitted for the record. Does the current proposal undo years of preparation and essentially start from scratch? And finally, while the PSST supports and encourages the FCC to work with other Federal government agencies to expedite network deployment, would additional layers of interagency involvement create new challenges and impediments?

Would the proposed ERIC structure impose new

bureaucratic Federal requirements as each agency seeks to play a role? Do DHS, NIST, and TIA, DOJ, and other Federal agencies, with their own Federal spectrum resources and needs, share the same sense of urgency as the state and local public safety agencies in deploying this network? The PSST appreciates the opportunity to participate in this forum and hopes to work closely with the FCC to address the questions raised today. We need to do this right, but we need to start down the path with a streamlined, efficient operation, and as quickly as possible. Thank you.

MS. MANNER: Thank you. Do any of our panelists here have anything, responses or comments?

MR. MCEWAN: Am I supposed to stay up there?

MS. MANNER: It's up to you, it's discretionary.

MR. FURTH: We're not going to deprive you of the podium, Harlin.

(Laughter.)

MR. FURTH: Maybe I can just lead off. And again, I'm David Furth, Deputy Chief in the Public Safety Bureau. And Harlin I think raises a number of extremely good questions, which are questions that we have been asking and talking to public safety and others about, and in fact that's one of the reasons

that we're having this forum is to come up with the right answers to precisely the questions that Harlin has asked, because we want to avoid duplication, we don't want to create an unnecessary layer of bureaucracy.

We are looking for a way to put ERIC into the role that we see as essential with respect to creating and fostering and continuing to foster an environment that will support interoperability, but leveraging existing resources, the resources that the public safety licensee brings to bear, that the public safety community brings to bear, that industry, standards setting bodies bring to bear.

All of those, our Federal partners, I think as the statements that have been made here have underscored, we're looking to take advantage of all of those, so that what ERIC can provide is a framework, and that is really what ERIC is intended to provide is a framework, both to create it and then to maintain it over time because we're talking about a technological environment when we're talking about broadband that is not static, it's anything but static, and so we need to have a framework that can evolve as technology evolves.

And I think that Harlin has asked good

questions about exactly how we should structure the advisory committees. We certainly see that public safety needs to play a critical advisory role, and we don't want to duplicate existing effort or create additional burdens on already strained public safety resources. So one of the things that we're interested in from this forum as well as from dialogue that we've had is in figuring out the best way to accomplish just that. With that, if others on the panel have comments?

MS. MANNER: Jeff please.

MR. GOLDTHORP: Yeah, I just wanted to comment on one specific aspect of what you said, Harlin, because I also thought you were right on target in this area as well, and that is, I think one of the hardest technical challenges that ERIC faces is deciding -- to strike the right balance between a set of requirements that are at once detailed enough to enable interoperability, to establish the right framework for interoperability, without being so detailed that they somehow unnecessarily inhibit the, you know, local control and how, you know, folks want to do things within their own jurisdiction, it's that are things that are fine to do that have nothing to do with interoperability.

So the challenge, one of the challenges, the technical challenge for ERIC is to strike that balance. It's been done before. And the analogy that I'm thinking of, that I promised Jennifer I wouldn't use, but I'm going to do it anyway because I think it really is a good analogy, and that is it's been done and it's been done with the Internet. And the thing that makes the Internet beautiful is the simplicity of the protocols.

The TCP/IP protocols are elegant in their simplicity. They allow operators of autonomous systems to do whatever they want in their networks, carriers that are operating autonomous systems that connect to the Internet, can do whatever, they can move traffic around using whatever protocol they want, as long as they're communicating with their peers using standard Internet IETF protocols. Well it's the same model here, and the challenge is not to burden the requirements with too much complexity and more than is necessary. Less is better here.

MS. MANNER: Thank you. Unless -- I can give you a minute, Harlin, but we need to move on.

MR. MCEWAN: I just want to thank you. I appreciate your response, and I believe that's exactly the tone of what I'm trying to say is that we've all

got to work together if this is going to work. That's all, thank you.

MS. MANNER: Thank you very much. And then I'd like to call up Bill Carrow please.

MR. CARROW: Good afternoon. My name is William Carrow, and I'm the President Elect of APCO International, the nation's oldest and largest public safety communications organization. APCO's over 15,000 members are on the front line of providing communications capability for our nation's first responders. We have long advocated steps to improve interoperability among public safety communications systems through digital equipment, standards such as Project 25, spectrum allocation to facilitate multi-agency shared systems, funding to support interoperability solutions, and improved governance and planning across local, state, tribal, and Federal agencies.

APCO applauds the Commission for proposing the creation of an Emergency Response Interoperability Center, otherwise known as ERIC, though many important issues regarding ERIC must still be resolved. An entity to address interoperability will be essential as we move into the broadband environment where local public safety systems, national public safety networks

and commercial networks will need to interoperate to provide optimum broadband communications for our nation's first responders.

A wide variety of network engineering standards, roaming agreements, priority access procedures, equipment standards, and other interoperability protocols will be needed. ERIC could play a very important role in addressing these very issues. However, we believe that there are several critical elements for ERIC to be a success. First of all, there must be sufficient funding to ensure that ERIC is able to fulfill its responsibilities in an effective and efficient manner.

Second, ERIC must be responsive to local public safety needs. Therefore there must be an effective advisory body to ERIC that includes direct representation from first responder leadership associations, organizations such as APCO and representatives from a variety of public safety interests, including large, medium, and small agencies, urban and rural areas, and diverse regions of this nation. Critical infrastructure industries such as utilities should also be involved in the process.

Third, we believe that ERIC should be a part

of the FCC as the Commission has direct jurisdiction over state and local government spectrum allocation and management. However, there should also be close cooperation and participation by DHS, NTIA, NIST, and other relevant Federal agencies. Fourth, ERIC will need to work closely with the Public Safety Spectrum Trust, the national licensee of the public safety broadband spectrum. Currently there is little information about the specific role and responsibility of ERIC and how that aligns with the roles and responsibility of the PSST. We encourage the Commission to address the role of PSST and its relationship with ERIC as early as possible.

Fifth, there is uncertainty regarding the scope, authority, and interaction of ERIC with local, state, tribal, and Federal stakeholders. We encourage the Commission to address this issue in a clear and uniform manner as early as possible. APCO looks forward to participating in ERIC and working with the Commission to enhance public safety communications capability.

We also continue to urge Congress to reallocate the D block as we believe that would be the most effective way to address the long term broadband needs of public safety. In any event, ERIC could play

a critical in ensuring that public safety broadband communications will be available to the maximum number of users possible with seamless interoperability. On behalf of APCO and its nationwide membership, we thank you for the opportunity to submit these remarks.

MS. MANNER: Thank you very much, Bill. I look to our panelists if they have any remarks? David?

MR. FURTH: One issue that I would I think underscore is, Bill raised again a number of very good questions I think, and one in particular that we certainly are focused on is what is the relationship between ERIC and the Public Safety Spectrum Trust as a licensee. And although it is I think obvious, it probably needs to be underscored ERIC is not intended to be the licensee or to replace the licensee in terms of doing the sorts of things that FCC licensees normally do.

It will not hold rights in spectrum, it will not build and operate networks, it will not enter into partnerships or contracts with vendors. ERIC is going to be in its initial iteration housed within the FCC and it is essentially performs a regulatory function, but it's a regulatory function with a technical focus. And I think what we envision is that in fact ERIC and

the public safety licensee reinforce one another.

Because the standards and the requirements as we described in our concept paper that ERIC will generate, those can then become the basis for rules for license conditions and for authority that the licensee can carry out as well as obligations that the licensee will be responsible for. So I think we agree that laying that out clearly so that the lines of responsibility and lines of authority are very clearly delineated is extremely important, and that's another goal that we're focused on. I don't know if others want to address other aspects of Bill's comments.

MS. MANNER: Thank you very much, Bill.

MR. CARROW: Thank you.

MS. MANNER: Next up is Cynthia Cole.

MS. COLE: Good afternoon. My name is Cynthia Wensel Cole, and I am an Interoperability Strategist and Architect with Cynergyze Consulting. My comments echo many of those that have been made today, and I'm picking up on one of Chief Barnett's statements last week in which he said we must build upon what's already in place. I'm presenting a specific technical idea in this area.

As you know, all public safety first responders carry radios today, and a growing

percentage of those radios are now IP based devices, operating on sophisticated and secured IT networks. These networks deliver unique capabilities essential to the public safety missions, including managed access control, centralized dispatch, multiple layers of priority, end to end encryption, audio logging, and 99.999 percent availability.

The investment by taxpayers in these systems is already in the billions of dollars, and they are built to last 20 years or longer. While developing broadband handsets equivalent to these radios is relatively straightforward, the challenges on the broadband networks side are well beyond the reach of both technology and commercial investment for at least five to ten years.

I encourage you to embrace this reality and pursue ways to get the best of both worlds for the public safety community. With modern public safety networks now based upon these IT technologies, a single payer of inexpensive network gateways can now tie together vast coverage areas using just ethernet connections. These standards based interfaces have just become commercially available, having been ably managed by Project 25, NIST, and DHS.

The systems of systems approach melts away

the differences in RF bands, over-the-air interfaces, and equipment manufacturers. These same network interfaces, or better yet revved up versions of them, could be used to connect radio networks to the nationwide broadband network. Since the users would get to keep their radio and add a broadband device, they would then have redundant voice and data, redundant network coverage, and a redundant device.

This approach achieves an inherently reliable experience for the end users and will deliver services which are more robust, more integrated, and less costly to deploy. As you know, the obstacle to interoperability cannot be overcome by just adding spectrum technology and funding, although that helps. Public safety must also continue getting trained and accustomed to working across and roaming across system and operational boundaries.

In closing, the policies and requirements which will be driven by the proposed center will set the pace for interoperability for many years to come. Therefore I ask that ERIC works toward network interfaces which will connect the systems of tomorrow, but also encourage connectivity between the existing systems of today. By doing so, the public safety community will be that much more prepared for the

transformational promise of the nationwide public safety broadband network when it arrives. To quote a public safety visionary and friend of mine, let's make sure no radio is left behind. Thank you very much.

MS. MANNER: Thank you, Cynthia. And I think Jeff Goldthorp wanted to?

MR. GOLDTHORP: Yeah, that's -- one of the things I didn't mention in my remarks at the beginning, and one of the things I think ERIC will be doing, is developing requirements for gateway technologies and the integration of gateway technologies into the broadband wireless network that we're talking about today. And those gateway technologies can be exactly the kinds of gateway technologies that you're talking about here. So I don't think anything we're talking about with ERIC is meant to exclude what you're describing, and we just need to find the right way to include it.

MS. COLE: Right, and emphasize it perhaps a little more. Maybe Dereck could start testing it this year.

MS. MANNER: Dereck?

MR. ORR: I was actually going to say that that is one of the key things we want to look at in the demonstration network, is looking at tying

together existing narrow band systems with the broadband network. DHS has already done this in a pilot with DC and already demonstrated that these networks can be tied together, and being able to use a cellular device as you would a public safety radio on a public safety system. And that's something we want to try out in the LTE demonstration network in Boulder as well, and we're going to be working in partnership with DC again in this demonstration. But you're right on point, Cynthia, and that's something we're going to be looking at specifically.

MS. MANNER: And Chris had wanted to say a couple words?

MR. ESSID: I was just going to say that right now we're updating the National Emergency Communications Plan, and a lot of this is going to be in the plan. As these next generation technologies are developed, how do you link them with today's technologies? I mean land mobile radio, the fact is, is going to be around for quite some time because we've invested billions of dollars and people are going to use it for its entire life cycle. And so trying to come up with ways to converge these technologies is one of the things that is going to be front and center in the new version of the national

plan that we're starting to develop right now.

MS. MANNER: And then Behzad?

MR. GHAFFARI: Yeah, until interoperability happens, I mean technically the communications layers happens in different layers, and these layers, if I want to summarize, there are three layers. One is the physical layer, the other one is a network layer, the other one is application layer. And ERIC is mindful of all three of them. For physical layers, basically we need to have devices that perhaps on an LTE or some other 4G technology that in order this interoperability happen. And for the network layer we are assuming that this would be an IP network, so they all can talk to each other. And application layers are exactly the topic that you're talking about, and ERIC is going to consider that when it comes to setting standard and adopting standard, that's very important.

MS. MANNER: And thank you very much, Cynthia. I would just remind the folks, our panelists here, to talk into their microphone, because you're all facing the panelist. With that, I'd like to invite Jonathan DeLong up.

MR. DELONG: Good afternoon. Thank you, Jennifer, esteemed panel, and of course friends of

ERIC. I am Jonathan DeLong, I'm Executive Vice President of Zos Communications. And I can probably keep this short. I think we all agree that we want ERIC, now in its infancy, to grow up to be strong, to be adaptive, and to serve us all. What I want to remind the panel to consider in the future is for innovation coming down the pipe, not yet conceived today, or still yet on the bleeding edge of capabilities.

And I think about, we think about at Zos Communications, the difference between an incident or an event that might be many incidents, everyday need and mutual aid versus a disaster versus a catastrophe, and how ERIC has to be able to accommodate all of these things. What we're most focused on, and we think is very relevant, is the consideration of location in all of this, and how the new devices, both off the shelf and to be developed, can bring location awareness to the table, not just from GPS, not just from the carrier networks, but from a whole host of things being emergent today in urban areas and rural settings.

And where what we're accommodating is the handoff from one CAD system to the next based on a first responder moving across an imaginary line in the

sand and how that line needs to be flexible and adaptive to keep first responders in touch with the chain of command and an expanding chain of command as the incident grows in intensity in a nonstatic environment. So, as all of the interests in this room probably provide a small layer into the total solution of ERIC, we want to remind the panel to consider location and emergent technologies.

And in relationship emergent technologies, there's a host of development communities out there who would love to take part in the solutions that are being presented. And beyond standards and protocols are the clear expression of the need, taking the incidents in the field and putting them in plain terms for everyone to understand. And we believe that if everyone could understand the need and the challenges, that it's going to foster more innovation across a larger group of developers and stakeholders. And that's all I have for you today, thank you.

MS. MANNER: Thank you. Jeff?

MR. GOLDTHORP: I think what you just described is I think a really good sort of a vertical example of an application that, were it to, you know, catches on, there's going to be a clear need for interoperability amongst the networks that are being

built out. And the application, I think that the ultimate application is the CAD application you described, but the location awareness is necessary for the CAD application to work, and in order for that to all hang together you've got to have interoperability amongst these networks.

So what Behzad, I think that sort of plays back to what Behzad was saying before, which is -- and when we're thinking about ERIC we're not just thinking about physical or even network layer interoperability, we're thinking about interoperability all the way up to the application layer, which gets into some of the points you're making here.

MR. DELONG: Indeed.

MR. GOLDTHORP: Thank you.

MR. DELONG: Thank you.

MS. MANNER: Thank you very much. And with that, I'd like to call up Stephen Verbil.

MR. VERBIL: Thanks, Jennifer, appreciate it. Good afternoon, everyone. Is this mic close enough? My name is Stephen Verbil and I'm Emergency Telecommunications Manager for the Office of Statewide Emergency Telecommunications within the Department of Public Safety for the state of Connecticut. We provide 911 to the state of Connecticut and our

employees provide engineering and frequency coordination services to our state and to our region, it's region 19 New England.

I'm Co-Chair of the Region 19 700 and 800 MHZ Technical Advisory Committee, and the Regional Plan Update Committee experience is probably instructive for what we're talking about here today. The ERIC concept paper puts forth a comprehensive plan for the FCC to determine a host of parameters and procedures for our use of the 700 MHZ broadband frequencies, and it's about time we move forward, I think we all would agree.

The example and precedent, however, set by the FCC, regarding for instance the NPSTC 800 MHZ frequencies and the devolution to the regions of plan creation and plan execution, put the FCC in those days in an enabling role, preserving the FCC's ultimate regulatory and enforcement role for use when needed. But it left the decisions of the how and the who to those on the ground who need and use the technology. Contrary to this precedent, the ERIC plan combines planning, technology decision making, and policy setting down to the choice of encryption types within the same agency that has the ultimate enforcement responsibilities.

We believe these two don't sit well together. While I understand the frustration that the Commission and staff must feel with the lack of speed in implementing a 700 MHZ broadband solution, because we in the public safety communications community certainly share that frustration, it may well be that a plan that looks a little bit more like that adopted to administer the NPSTC frequencies, national in scope but with regional representation, would provide a better outcome for all of us, would be more likely to succeed, and have less potential to stifle innovation. Thank you.

MS. MANNER: Thank you very much. Does anyone want to have any statements?

(No response.)

MS. MANNER: Okay, well thank you very much, we'll take your comments into consideration, we appreciate them. With that, I'd like to call up Gil Armendariz.

MR. ARMENDARIZ: My name is Gil Armendariz, I'm the Chairman of the Sy Tech Corporation. And one of the things that I'd like to discuss is one thing that was mentioned early in the opening remarks, and that interoperability is 10 percent technical and 90 percent administrative and operational. We at Sy Tech

are the prime contractor for the Virginia Commonwealth Link Interoperability System Comm Link. We currently have a system that was actually originally, if I can use that word, fathered by Chris Essid back about five or six years ago when they got funding from DHS and the COPS program.

And a number of regions in the Virginia area got together and put out an RFP that was competitive, and fortunately we did win the job, and as of right now we have actually a system of systems communications all the way from Fairfax to North Carolina. We've got Virginia Tech, Liberty University, a number of universities, hospitals, we even have the military that's actually in the actual link itself.

And one of the major problems that we've encountered is not really technical, it's really the establishment of the MOUs, the administration, and bringing together the actual agencies from civilian to military to all of the different agencies that basically 99 percent of the time they don't really want to talk to each other because of security issues. But what happens when you actually have an incident, obviously you need to talk.

And the problem that you have is you need to

have an actual system in place at that instant in time, that's your problem that you have. So one of the things that I'm asking ERIC that you need to look into very deeply, and quite frankly I don't know how to solve that, it has to do with really the administrative process of bringing the different agencies together to want to actually put together a system of systems.

The technology's already there. We're currently right now working with the commercial broadband networks, the 3G and the 4G, and one of the areas that would really be of tremendous advantage or of interest to public safety would be to have priority traffic during actual incidents. Recently in the governor's inauguration in Richmond they used our system for communications. Some of the actual undercover agents had actual PDAs that they were using, they didn't want to go out with a big public safety radio because they were undercover agents.

It worked out well the day before, but then when the actual governor's inauguration took place, because everyone's using their phones, obviously they had problems with actual communication. So that scenario that would be of tremendous benefit if we could look into Verizon, AT&T, the other commercial

carriers, if they would provide the public safety with priority during the incidents that you had. For example we did actual testing during the inauguration, and we had a very good lab here, we had 2 million people with cell phones and we went out there with all kinds of cell phones to see what would work and what wouldn't work. Guess what, nothing worked.

The only thing that would work were text messages. But we actually timed those also, you'd send a text, you may get it in 30 seconds, you may get it in three minutes, sometimes you'd get it an hour later. All right, but it's because of the fact that you've got everyone else using the actual network that's being used. So that would really be an area that would be of tremendous help to public safety. All right, with that, that's all my comments that I have right here. Any questions anyone has?

MS. MANNER: Thank you. David?

MR. FURTH: I'm going to make I guess an observation, and maybe sort of a question back, I think that you cited the sort of the 90/10 split which Chris also cited, that, you know, interoperability is about 10 percent technology and 90 percent the sort of operational and governance issues, and I think that's true. I mean I think that what we've seen in the

narrow band world suggests that that's the case.

Part of what we're focused on here and with ERIC I think is that in the broadband world we now have an opportunity to get that 10 percent right from the start. Because I think one of the reasons that we've had it, you know, so much work that had to be done with the 90 percent is because of the long time that it took to get the technology in the narrow band world to the point where you had interoperability.

And you're still going to have even assuming you have perfect technical interoperability you're going to have a whole host of issues, which I think as we see it are not necessarily the issues that ERIC would deal with, in fact these are really in the wheelhouse of OEC and many within the Federal government that have to deal with these on a daily basis as well as with the public safety community. But I think that getting that 10 percent right in the broadband context from the start may make the 90 percent a little bit easier, at least I think that's what we'd like to try. And I don't know if others on the panel have perspective on that as well.

MS. MANNER: Chris was actually next.

MR. ESSID: He said what I was going to say.

MS. MANNER: Okay, so, Chris, I'm going to

cede your --

MR. FURTH: And we didn't even rehearse it ahead of time.

MS. MANNER: Please, sir?

MR. ARMENDARIZ: One of the things we're finding is that the commercial world is moving much much faster than public safety. A couple months ago I was showing my wife how to use, you know, the Facebook and social networks and she said, oh great, you mean to tell me if I have 911 I can send a text message to 911? I said, no you can't do that. Why not? I can send it to my daughter in California and I can send it so and so and so and so, you mean to tell me Stafford County I can't send to 911? No, you can't.

The technology is there, okay, but the problem is there's no guarantee that that text message is going to go through, so in working with Dorothy and VITA a couple of months ago we were trying to get this done, but the cellular providers don't want to play a part in that because of the liability issue, okay? So these are some of the issues that we need to tackle. Now, video also --

MS. MANNER: I'm sorry, I'm going to interrupt you because I know some of the panelists want to talk and we need to --

MR. ARMENDARIZ: Sure, okay. The comment I'm making is, you do have technology, video, text messages, that's moving much much faster, and those things need to be addressed, okay, thank you.

MS. MANNER: I want to turn the floor over to Behzad for a second.

MR. GHAFFARI: I have a very short comment actually adding to what David Said. I think broadband world is different than the narrow band. I mean this is a whole different thing, the technology's different. And in fact I think that if ERIC does its job right from day one, this 10 percent, I mean in fact you're going to reduce that 90 percent. I don't know, maybe we can say that 30 percent and 70 percent or something like that. We are hoping that we will experience something different.

MS. MANNER: Okay, thank you. I was going to go to Chris.

MR. ESSID: Technology's going to continue to evolve, and this reminds me of something I saw, I think it was on the Letterman show or something like that where they had somebody sending morse code and someone else was trying to send a text message, and while the technology's evolved, the morse code was faster. And so, no matter what we do, in my opinion

and the opinion of the first responders we've worked with over the years is, no matter what the technology, if you don't have the standard operating procedures and how things work, who does what in what situation and you're not trained on it, you won't be able to use it to 100 percent of its capability.

So I think that, you know, we're going to be having the same conversation years down the road, people want to know when we're going to just be done with interoperability. Interoperability is a core capability, and as these new technologies are developed we have to continue to work together with the public safety community and the user community to ensure that we consider all the ramifications of this new technology on operations.

So I hope that, you know, you can reduce it a little, but the new technology, if people have to know how it plugs in and fits into their operations, and I think that's what you were getting at. And we have programs that we're going to continue to do that, you have to look at that, and we're continuing through our Safecom program and other efforts to look at how do we offer resources and best practices lessons learned so everybody can utilize those.

MS. MANNER: And finally Ziad?

MR. SLEEM: Yes, thank you. And I think that the gentleman before me has really addressed it very nicely and eloquently. You know, first of all, these networks are really thoroughly complex but also simplistic enough to really enable end to end services. And from that perspective I think that, you know, many of these services would be much more enabled on a faster track than the narrow band services as my colleague Behzad has mentioned earlier.

The second element in terms of the operation of the network itself, also this kind of a concept of network of networks, there are some simplistic issues, nonetheless they are complex, but there are some built-in capabilities in these networks that will really fantastically enable these issues. And my last really my last point about this is more about the operational side of the house.

And I think my colleague from DHS has really sensed it very nicely, that we are learning as we are really going, and these kind of lessons learned and areas where these networks, you know, perform to whether public safety wants them to go and how they want them to perform and so forth need to be documented fairly well and need to be fairly well understood so that under different circumstances, you

know, ERIC can explain and can show how well these networks can really behave. Thank you.

MS. MANNER: Okay. So thank you very much, Gil. I'm going to call up our next speaker is John Doherty.

MR. DOHERTY: Good afternoon. I'm John Doherty, Vice President of Engineering for GEO Command Incorporated. I have a very brief comment today. GEO Command is a company that serves first responders communities with software that enhances emergency response planning, situational awareness, and interagency interoperability. A major component of our products is a gathering, maintenance, and sharing of critical data such as hazard and structure information.

As a consequence of our interest in the free exchange of data, GEO Command has become an early adopter of the Department of Homeland Security's Unified Incident Command and Decision Support Initiative. UICDS creates an open architecture framework to allow multiple organizations using their own diverse software tools to store and exchange data and manage resources.

DHS is currently developing compliance test procedures and will include UICDS compliance in future

grant requests. I'm here today not just representing GEO Command but some 20 other private sector and academic participants in the program. I'd like to urge on my behalf and theirs that ERIC adopt UICDS structure to promote interoperability and interoperability between various applications. Thank you.

MS. MANNER: Thank you. Do we have any comments?

(No response.)

MS. MANNER: Okay, well thank you very much for your comments. Next up is Prudence Parks.

MS. PARKS: Hi, good afternoon. My name is Prudence Parks and I'm with the Utilities Telecom Council. My question here is concerning a very limited issue. And while utilities have challenges themselves concerning interoperability when they have sister utilities coming to an emergency situation for restoration purposes, the question that I am going to limit myself to is the composition of the public safety advisory board.

Shouldn't the public safety advisory board include representatives from utilities and other critical infrastructure industries given that utilities and critical infrastructure industries

respond to emergencies with public safety? As we say, they are part of that select community that run towards a disaster instead of away from it. And the FCC has indicated that as part of their national broadband plan they are going to recommend that partnerships between public safety and critical infrastructure be pursued in terms of smart grid.

MS. MANNER: Thank you. Do we have any comments? David?

MR. FURTH: Well, I would say that one of the things that we did say in the concept paper is we certainly see the importance of having a public safety advisory board but we're not necessarily saying by that that we mean that only public safety is going to providing advice to ERIC. And in fact we do envision that other entities including vendors and service providers, and I think I would certainly include critical infrastructure and utilities within that definition, could also play a potential advisory role with respect to ERIC. Public safety as we envision it in the public safety spectrum is going to, we anticipate that it will be partnering with others, including utilities, and therefore having input from those sectors as well is very important.

MS. PARKS: Could you expand a little bit on

what you envision to be the selection process for serving on that board?

MR. FURTH: I don't think that we have gotten to that point yet. We're still I think trying to look at how do we configure an advisory board. There may be first of all certain legal requirements associated if this is a board that has to meet FACA standards, Federal Advisory Committee Act standards, that obviously imposes certain requirements. But sort of higher level than that, I think what we want to do is ensure that the board is broadly representative and also not so large as to be unwieldy. And those obviously are in some tension with one another, but I think that's a balance that we're seeking to strike, but we have not yet decided on a specific selection method.

MS. PARKS: Thank you.

MS. MANNER: Prudence, just to follow up on one point, we would love to hear, not today, but we'd love to talk to you further about, and other folks in the room, on input on who they think should serve on the advisory board. So thank you. I'm going to call Steve O'Conor next.

MR. O'CONOR: Good afternoon. I'm Steve O'Conor of the West Palm Beach Police Department, and

also First Vice President of the National Emergency Number Association. NENA, the 911 association, thanks you and those involved in developing ERIC and for seeking funding for this effort. Interoperability as well as operability have been significant issues for public safety and were underscored by the horrific events of September 11th, Hurricane Katrina, and other events.

As 911 and public safety communications moves into the world of broadband, we will have the opportunity to ensure that data, voice, and video communications capabilities are highly functional, operable, and interoperable. The next generation 911 equipped PSAP, or emergency communications center, is the first link in the chain of emergency responders. In a broadband world, the ability to push and pull data to and from citizens at the scene of an emergency incident and to transfer that data to those in the field will better equip those responding to an emergency and better serve those in critical time of need.

The concept paper describing ERIC indicates one of its roles is to provide oversight and coordination of key functions that will ensure the effective deployment of interoperable broadband

networks to serve public safety. Initiating this effort and housing ERIC within the Commission with dedicated staff, and in conjunction with other key Federal partners, will substantially improve the likelihood of a successful nationwide public safety broadband network.

ERIC has the potential to coordinate technical standards work and to ensure that critical functions needed by public safety are addressed in standards and implemented by commercial licensees. ERIC will therefore provide important technical expertise to the public safety licensee. Regardless of its ultimate form, it is important that the FCC address the interface between public safety broadband networks and the networks of commercial carriers, including the critical issues of roaming, priority access, and encryption. ERIC will play a pivotal role in addressing these issues.

Having the advisory board to ERIC consisting of public safety entities from state, regional, local, and tribal areas along with other Federal agencies will further facilitate the ability of public safety to address matters that cut across jurisdictional and authorities. It will also help ensure that the technical work of ERIC is informed by on-the-ground

public safety operational needs.

In light of the Commission's recent briefings on the public safety aspect of the national broadband plan, ERIC takes on a significant role, especially if public safety will have access to 80 MHZ of commercial spectrum and the 700 MHZ span as apparently contemplated by the plan. NENA stands ready to assist in the success of ERIC, and we look forward to working with the Commission, other Federal agencies, and our colleagues in public safety to ensure that the work of ERIC further advances the broadband needs of public safety. We thank you for this opportunity.

MS. MANNER: Thank you very much. Any comments?

(No response.)

MS. MANNER: Okay, well thank you very much, we appreciate your remarks. Kevin Foote is next.

MR. FOOTE: Hello, I am Kevin Foot, I am Director of the National Emergency Internet Deflection System and also a Chairman of Fast Command, which is a commercial web platform that is used by responders to report data and to interoperate with other colleagues that are responding to a disaster. Since we're talking about ERIC and its potential to help

Americans, one of the things that I wanted to discuss was the fact that the Internet, as Jeff was saying, is a very simple process and platform that is being accepted by all Americans, and the Internet is actually being used and there are cutting edge technologies that are being used during disasters right now as we speak.

And our company actually assists responders, and in fact they use wireless to actually report data into their deflected websites. And what that basically is, is that operational institutional websites that are normally in place during a disaster can be used for a separate purpose during a disaster. All these websites that are out there the institutions have, whether they're public safety, whether if they are hospitals, or if they're university websites, are great conduits of exchanging information during disasters.

The problems that some responders have had is the availability to report the data into their Internet systems because they'll be on cell phones or different wireless mechanisms that are not available at the time, so what they have to do is search for an alternative access point to the Internet in order to make their reports. And as the Internet progresses in

usability by the American public, it is very very important that the FCC recognize that they need to have mechanisms available to access the Internet for responders to report and utilize data.

Our organization as part of the ERIC plan would hope that also the FCC would also sort of consider embracing new plans for ERIC to serve in different roles to help interoperable use of the Internet and Internet sites during disasters. And we propose that the FCC consider including in its public safety's telecommunication policy maybe a national emergency Internet deflection system that allows the public use websites to be intercepted and used for disasters for the transmission of warnings and alerts in a way that's very simple.

Right now a lot of the platforms that have been used to try to do this have been based on broadcasts from -- traditional broadcasting mechanisms. And the Internet is available through all sorts of mechanisms, whether it be wired, satellite, and also through standard wireless transmissions like cellular and PDAs. And our goal is that the FCC consider as part of its overall goal is to embrace Internet technologies and put those in the plan for ERIC that maybe there should be a registration system

of websites around the country so that they can be actually utilized during disasters, public used sites, for communications.

And our organization actually does this in the private sector by again by deflecting websites for purposes for response. So our comments are that wireless is needed more, because the Internet's going to be used more. And reporting mechanisms and platforms on the Internet are going to be very important as the American public embraces Internet technologies. So I want to say that. Thank you.

MS. MANNER: Thank you very much. Jeff?

MR. FURTH: Let me -- this was my reaction to your remarks. I mean it seems like what you're describing is like some of the other speakers we've heard today is more of an application. It's an application of the Internet, but it's a web based application. Now, so one of the things, and I don't remember if I said this earlier or not but I think it's mentioned in the paper that we had put out about ERIC, ERIC will be developing requirements for applications as well.

Now, I don't mean to give folks the impression that ERIC is going to specify the applications that are the exclusive applications, but

ERIC I expect will be getting into requirements, minimal set of requirements that are necessary to support various kinds of applications so that they can be used regardless of where the user happens to find him or herself. And that could very well apply to what you're describing here.

MR. FOOTE: I appreciate that.

MS. MANNER: Thank you. Behzad?

MR. GHAFFARI: Layers of interoperability said there are some physical, some network, some application. And as we want to increase the access to Internet, I think basically here is that this nationwide interoperability broadband network is the one, is the vehicle to access the Internet. If we have a network that is nationwide, that's available to all public safety, they can access the Internet. And as Jeff mentioned, if the issue is the applications and the application interoperability, I think that's something that we need to look at to listen to public safety.

I mean we need to listen to what this advisory board would tell us. I mean if the advisory board said that these are the minimum set of application that need to be required, then ERIC would act on that. And ERIC, I don't think it should go

beyond that, because there are certain applications that each regional network may want to have, and I mean that's sort of a balance that ERIC should be careful about.

MS. MANNER: Okay, thank you. And thank you very much, Kevin.

MR. FOOTE: Thank you.

MS. MANNER: With that, last but not least is Stacey Black.

MR. BLACK: Hi, I'm Stacey Black with AT&T's Mobility Product Management Organization. AT&T applauds the Commission in its effort to establish an organization that focuses on public safety broadband. We suggest the new organization's mission be focused first on adoption of broadband by public safety, second on spectrum management interference and license coordination, and finally standards and interoperability planning.

We see these three components of the organization, outreach and education, operations and coordination, and finally standards and planning. For outreach and education we believe the ERIC can drive adoption of broadband by offering a technical support and education resource drawing on the collective expertise of the private sector and other government

agencies such as DHS and NIST.

Through an ongoing outreach program this component should serve as the collection point of best practices from agencies that have deployed or are in the process of procuring or deploying a broadband network. This should include RFI, RFP development templates, grant application assistance, and even perhaps chairing a user or advisory group where industry and public safety practitioners can have an open dialogue with the needs and requirements for broadband. AT&T would be willing to participate in such an advisory capacity.

The operations and coordination component is also focused on operability, and AT&T suggests that it be housed at the FCC. This component would assume the responsibility for review and/or approval of the licensing or spectrum lease application process from regional broadband applicants. In addition to performing traditional frequency coordination and interference mitigation, this component of the ERIC should also be responsible for reviewing applicants' plans for the incumbent 700 MHZ narrow band licensees who may interfere with or be interfered by the proposed broadband network.

This group should facilitate communications

between the broadband applicant and the narrow band licensee to ensure both parties achieve their objectives. The final component of the ERIC will play a critical role in the planning and standards work required in developing and deploying regional broadband networks. In its ERIC concept paper the Commission outlined a number of requirements that it believed should be adopted, including encryption, authentication, roaming, and priority access.

All or most of these requirements exist in the 3G PP standards today, and in order to keep costs down and leverage the economies of scale of the wireless industry, it's vital that public safety broadband networks are developed using these existing standards. However, we understand that there will be some unique aspects to the public safety networks that were pointed out in NPSTC's broadband task force activity.

To address this, this component of ERIC should be active in standards forums and industry associations such as the CTIA to ensure that there is alignment with the needs of public safety and that of the commercial wireless industry. We would highly recommend and applaud NIST's ongoing involvement in this component of ERIC and perhaps its leadership in

planning and standards coordination.

In conclusion, these three working areas under the leadership of the Public Safety and Homeland Security Bureau have unique responsibilities that when combined as a total activity has the potential of dramatically impacting the adoption of broadband by the public safety community through advanced planning and standards of development, through an impartial license application and plan review process, and providing the education and outreach necessary to remove the uncertainties of deploying wireless broadband networks.

MS. MANNER: Thank you, Stacey. Anyone have any comments?

(No response.)

MS. MANNER: Okay. Well, thank you very much. With that, we still have some time to open the floor to questions. So if folks want to make remarks we actually have a microphone over here, and if you can come and identify yourself before you ask your question or make your statement.

MR. BELL: Yes, Rear Admiral, ladies and gentlemen, EAS interoperability -- my name is Frank Bell. The current EAS has many shortcomings compared with CAP and EDXL-DE. However, these can be largely

addressed using digital TV, HD radio, and an optional featured capability for consumer receivers. The emphasis on jurisdiction based alerts ignores the fact that over 70 percent of radio listeners are in vehicles. Such receivers are highly unlikely to ever be capable of being "aware" of which jurisdiction they are in.

They could, however, receive position information from a navigation or CMRS source. Therefore, polygons should be part of most EAS alerts, even if not in the CAP message. A success story of EAS is Amber Alert. However, the state and plate of the vehicle of entrance does not in the current CAP standard. This would be so that information would remain on the radio display after the alert is received. A written example is in my FCC submission. Considerations like this are excluded because an improved or next generation EAS standard is not within scope for CAP or EDXL-DE consideration. This should change, and an improved or next generation EAS standard should be started in the process.

MS. MANNER: Sir, I'm going to interrupt you only because we're very much focused on the Emergency Response Interoperability Center.

MR. BELL: Right.

MS. MANNER: So while we appreciate your comments, I'm not sure how this relates back to the Interoperability Center.

MR. BARNETT: However there will be proceedings later on EAS.

MR. BELL: Right, I will give you a copy later.

MS. MANNER: Please, thank you.

MR. BELL: Thank you.

MS. MANNER: With that, are there any other statements or questions related to ERIC? Sir? If you could identify yourself?

MR. BADORELL: Sure, sure. Admiral, panelists, good afternoon. My name is Art Badorell. I'm a consultant to -- well, currently I'm working with DHS on the Integrated Public Alert and Warning Program, I've also been on the Commercial Mobile Alerting Advisory Committee and have spent quite a lot of time in emergency communications generally. One issue which I believe falls into the application layer but may be worth particular attention I think, and I haven't heard it explicitly discovered or discussed, is the problem of discovery or directory services, there's various metaphors that can be applied.

Interoperability solves many problems, but

it also creates some new challenges. Having the technical capacity for anyone to communicate with anyone doesn't really avail us much if people don't know who else is available or how to achieve the connection. So one of the issue that I hope the ERIC will engage very specifically is what is the appropriate strategy for making sure that people, users, systems, devices in an interoperable communications domain can actually discover and achieve routing to each other. And I think we should all be very proud that we've reached the point of having that problem.

MS. MANNER: Thank you. Any comments? Jeff?

MR. GOLDTHORP: Yeah, Art, you're right. First, I mean I think you're absolutely right. I think of discovery, as you're describing is, as a service or an application, however you want to think about it, I think of it as -- when I was talking about authentication, that's just part of the discovery problem. You have to authenticate on a network so the network discovers you and then other users can then become aware of you as being a user on the network, but there's got to be a server sitting behind the authentication application so that that can take

place. That absolutely is part of the --

MR. BADORELL: If I may add, I would suggest that underlying both of those is the concept of identity, which is not a trivial problem.

MR. GOLDTHORP: I agree.

MR. BADORELL: And then authentication but also discovery. And identity of course is not always a human individual, sometimes it's a function, sometimes it may even be an automated device. So this is a very rich space. And then you've got the question of do you use sort of the Google metaphor or the Yahoo metaphor or are there other metaphors available? So in any event it's a rich problem space that I did want to recommend to your attention.

MS. MANNER: Thank you very much. Any other comments?

(No response.)

MS. MANNER: Okay. With that then we'd like to thank you very much for attending today. Jamie, do you want to make any?

MR. BARNETT: I just want to thank you again for being here for this rich discussion. The input obviously will be an ongoing conversation as we incorporate ideas to make sure that we've got it right as we work with our other Federal partners. So

certainly I appreciate NIST and DHS being here and for all the comments. I would say that you're going to see this all develop with a certain amount of alacrity.

Of course the national broadband plan will be produced publicly and submitted to Congress really in just a couple of weeks. And we would envision that ERIC would move out very shortly after that because of the timing that we're talking about. These networks are taking off, we have people who are ready to build and therefore have waivers in. We would certainly like to see the waivers reviewed and acted on early spring sometime to late summer depending on how fast we can get to them, but we definitely want to do that.

And of course as you may know that we are at least considering very strongly the auction of the D block, which I think would be in sometime in early 2011, maybe even before that. So all of this is going to develop very quickly, that's why your input has been crucial to this, so thank you very much. And I'll turn it back over to Jennifer for closing comments.

MS. MANNER: Thank you very much, we appreciate you all attending.

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(Whereupon, the forum in the above-entitled matter was concluded.)

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REPORTER'S CERTIFICATE

CASE TITLE: ERIC Public Forum

HEARING DATE: March 2, 2010

LOCATION: Washington, D.C.

I hereby certify that the proceedings and evidence are contained fully and accurately on the tapes and notes reported by me at the hearing in the above case before the (Enter Agency Name Here).

Date: 3/2/10

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