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FEDERAL COMMUNICATIONS COMMISSION

NATIONAL BROADBAND PLAN WORKSHOP
STATE AND LOCAL GOVERNMENTS: TOOLKITS AND BEST
PRACTICES

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1 P R O C E E D I N G S

2 MS. KRAVETZ: Good afternoon and
3 welcome. I think we're ready to start. I am
4 Lauren Kravetz. I am Special Counsel in the
5 Office of Intergovernmental Affairs here at the
6 FCC. I am going to be the moderator for today.

7 Today's workshop involves two panels.
8 The first involves statewide efforts on broadband,
9 the second will involve city and local efforts.
10 We are going to have a 10- minute break in the
11 middle and our questions will be posed mostly by
12 our FCC questioners, Catherine Seidel, the Chief
13 of Consumer and Governmental Affairs Bureau, Erik
14 Garr, the General Manager of our National
15 Broadband Plan, and Sharon Gillett, our Chief of
16 the Wireline Competition Bureau. There will be
17 plenty of opportunities, however, for the public
18 to participate and also ask questions. There are
19 several ways for the public to participate. Those
20 of you who are here, thank you for being here. We
21 also have our regular FCC Webcast at fcc.gov, so
22 welcome to those who are watching the Webcast. We

1 also have WebEx webinar program for those who
2 registered and are watching over the Web. That's
3 being handled back here. Any questions can be
4 submitted through that as well. Anyone in the
5 room who would like to submit a question, Carmen
6 Scanlon, my colleague in Intergovernmental in the
7 back of the room here has index cards, and there
8 are some index cards when you talk in. Please go
9 ahead if you're here and you want to submit a
10 question for one of the panelists, write down your
11 question and who you are and Carmen will make sure
12 that it gets up here. Hopefully we'll have time
13 to get to everyone's questions. People who are
14 signed up and signed up on the WebEx webinar, you
15 will be interacting directly on the Web with
16 Arlene. Anyone who is watching the regular
17 Webcast, you can email your questions to
18 fccevents@fcc.gov. You should be checking that
19 box and we will be able to accommodate you in real
20 time. Lastly, I believe we have the opportunity
21 for those who are listening in on our conference
22 bridge can also email questions to

1 fccevents@fcc.gov. So there is plenty of
2 opportunity for public participation, and as I
3 receive questions, we'll be figuring out which
4 ones we can include.

5 A couple of pure logistics. I want to
6 remind everyone to please turn off your cell
7 phones. And as a nod to your public safety folks
8 who have asked me to say this, in the event of an
9 emergency or evacuation, our shelter in place is
10 here and we should shelter here and wait for
11 further instructions. I promised that I would say
12 that. Almost equally important is the location of
13 rest rooms. If anyone needs them, they're in the
14 hallway immediately beyond this one. So you
15 either go out this door and make a left or go out
16 that door and make a right, but any of our FCC
17 staff in the room can help you. As you know
18 there's Carmen, Carolyn is in the back. Carolyn,
19 raise your hand. Thank you. If you have not
20 provided us a business card or signed in, we'd
21 love to you know that you were here, so please see
22 Carolyn before you leave. She's been pretty good

1 about stalking people as they came into the room,
2 but if she missed you, please see Carolyn before
3 you leave and provide her your contact
4 information.

5 A little bit of the legal fine print.
6 We do have a court reporter in the room over in
7 this corner over here who will be providing us a
8 transcript that can be put into the record of the
9 relevant broadband proceedings based on whatever
10 ex parte needs we may have. The last legal fine
11 print, we recognize that a lot of people in the
12 room may be participating in some of the BTOP
13 applications with NTIA or RUS. I want you remind
14 you that we're not really here to talk about the
15 BTOP applications and the BTOP process. We really
16 want to focus more on broadband deployment and
17 adoption.

18 I think with that we're going to go
19 ahead and introduce our panelists. In the email I
20 sent you late night I surprised you and said you
21 are going to get to introduce yourselves whether
22 than have me march through all the bios, so we're

1 going to start with Commissioner Ray Baum from the
2 Oregon Public Utilities Commission.

3 COMMISSIONER BAUM: You might want to
4 take a moment and understand why I'm here. First
5 of all, prior to years ago I had no knowledge
6 about telecommunications or broadband other than
7 it worked on my computer. Having said that, since
8 that time which is now 6 years ago, I'm now Chair
9 of the National Committee of Regulatory
10 Commissioners Telecommunications Committee, I'm
11 State Chair of the Federal Joint Board on
12 Universal Service, and I'm former Chair of the
13 Neighborhood Task Force on Intercarrier
14 Compensation Reform which produced the Missoula
15 Plan for those of you who really don't have a life
16 and understand what that is. Then also I'm on the
17 Governor's Task Force and our staff at the Oregon
18 Public Utility Commission is doing the staff
19 analysis work for our governor on this BTOP matter
20 so that I'm part of that working group as well.

21 My background is I spent 20 years as a
22 country lawyer back out in Northeast Oregon. I

1 graduated from Brigham Young University many years
2 ago and law school. Most importantly, I have a
3 beautiful wife and six children. So that's about
4 as much as you can stand to know about me.

5 I guess the most important thing about
6 being able to be here today is I gain my
7 understanding of this issue and broadband
8 deployment by spending 200 hours in a private
9 locked room almost with a bunch of carriers and
10 consumer advocates to discuss intercarrier
11 compensation reform. If you can stand much of
12 that, then you deserve an opportunity like this.

13 Having said that, I'm going to begin my
14 presentation. I'm going to kind of fly through
15 this. Those areas of the country that don't have
16 access to broadband services of at least 10
17 megabits in the next 5 to 7 years, and that may be
18 generous, it should be sooner, will be as
19 economically disadvantaged as those areas in the
20 first half of the 20th century that didn't have
21 paved highways or electricity. They simply will
22 be left out of what's going on in the economy.

1 And if not provided such broadband access soon,
2 some of those smaller communities in some of those
3 remote areas will be representing more likely
4 ghost towns of the West, and unless you live in
5 the West, you don't really appreciate that, but
6 that can be really what happens there if you don't
7 get on this quick enough.

8 We've been asked to address some issues
9 and I'm going to fly through these pretty quickly.
10 Where should states and cities begin with
11 broadband policy? The first thing you got to do
12 is recognize the value of it to your community and
13 to your state. What are the consequences of not
14 having it? I think they're pretty drastic in
15 today's global economy. What are the roadblocks
16 to serving particularly the high cost areas? And
17 what elements limit adoption and use? Again
18 that's a value proposition. People simply don't
19 see the value of that and in some instances they
20 can't afford it, but most of the time they just
21 don't see the value. Are there certain policy
22 elements that should be included in any

1 comprehensive local broadband policy? It's got to
2 be technology neutral. It should favor
3 public/private partnerships over public options
4 except in unique circumstances. Policies should
5 focus on sustainable, durable solutions. In other
6 words, what we don't want is we don't want the
7 taxpayer subsidizing rate pairs because we got
8 into this with public money and we found out we
9 couldn't make it go. That's why the focus has to
10 be on private/public partnerships with the public
11 option as the last option.

12 How do we identify and address
13 community-specific specific broadband needs? You
14 got to do surveys of customers and figure out
15 where they really are, what they need and try to
16 assess the value proposition for them, provider
17 lists which would be contacting the carriers and
18 identifying what they serve and what they can
19 provide. It all has to have that community focus
20 where you bring local officials and business
21 leaders to address local needs which vary by state
22 and by counties and communities within that state

1 to formulate plans to encourage broadband adoption
2 and use.

3 What are the hardest issues? The
4 hardest issue is we've got to have access to data.
5 I want to repeat that again. We've got to have
6 access to data, accurate data, and that's at least
7 Form 477 or beyond. Also the unsaid, unspoken
8 issue here that we call tend not to talk about
9 much is the USF intercarrier comp reform that
10 underpins the successful deployment of these
11 unserved rural areas and for that matter some of
12 the underserved areas as well. That's going to be
13 the biggest challenge of this Commission, how to
14 do that in the Broadband Plan. They also had that
15 Qwest II decision out there in April where they
16 had to actually reform some of USF under the Qwest
17 II decision, so they have these pressures on them
18 to get that done and it's going to be a challenge,
19 but it needs to be done.

20 Then we have to deal with the open
21 network issue and other federal policies that
22 affect deployment, both benefits and hindrances.

1 Then even more importantly, we have to try to get
2 cooperation between private businesses and the
3 public sector to ensure that broadband is deployed
4 and available in both unserved and underserved
5 areas including the urban areas of the country.

6 The easier part is we got this E-Rate
7 program out there supporting schools which has
8 obviously some issues of fraud in it in some
9 isolated instances, but it generally does a pretty
10 good job of supporting educational institutions.
11 We do have the cities and the states engaged in
12 broadband policy. That was the easy part. Then
13 every time there's a merger or acquisition coming
14 by, either the FCC or the state, we always
15 leverage them to get them to deploy broadband as
16 part of the transition to help get that out there,
17 and that's the other thing that we've been able to
18 do locally to get deployment out there.

19 How much of the policy approach is
20 policy versus legislation versus execution?
21 States operate on public policies because they
22 have no direct jurisdictional over this because of

1 federal preemption of most broadband issues.
2 We're limited to removing obstacles and facilitate
3 the build-out on state issues, and then our local
4 governments and local teleco providers are using
5 financial programs like RUS, USF, Universal
6 Service Fund, and the NTIA fund as ways to help
7 build out broadband. And of course, all this
8 execution must result in a sustainable business
9 model to carry forward that can sustain itself.

10 Balancing divergent interests among
11 community stakeholders. We have to understand
12 that institutions like schools and hospitals and
13 medical facilities have to have at least 10
14 megabits or more of broadband to do what they need
15 to do, and to do both telehealth and distance
16 learning, but many consumers may not need that
17 kind of broadband width. Then we need to have
18 multiple providers which can meet the divergent
19 needs which would include landline and mobile
20 wireless, and the public sector becomes the
21 service provider of last resort when the private
22 sector fails to step up and be responsible to

1 community needs, but only as the exception. The
2 alternative types of network structures and
3 mechanisms that have worked in Oregon are the
4 public/private partnerships that commit the
5 community and the industry to sustainable
6 operations. Then we have these new providers,
7 independent capitalists who come in and figure out
8 a way to do it in that locality, particularly in
9 areas not served by either cable or ILEC, and then
10 local government consortiums would come in when
11 the private sector refuses or can't get it done.
12 How do you measure the program over time? The
13 four measures are availability, affordability,
14 market penetration and broadband utilization by
15 key business and governmental institutions.
16 That's how you determine whether you're being
17 successful.

18 How can policies be structured to ensure
19 that they involve in response to community needs
20 and don't block it? You can't be static. It's
21 got to be technology neutral. It's got to be
22 focused on results, portable access to the

1 Internet, real-time video applications, medical
2 educational institutions and real-time data for
3 first-line public safety organizations.

4 What can the FCC do to foster
5 cooperation and the sharing of information, best
6 practices among state and local governments?
7 Again it's about data. We need to have that data,
8 477 or better data, provided to the states so we
9 can go ahead and know where these things are so we
10 can move ahead with planning deployment. Then
11 they need to keep us apprised of any changes in
12 federal policy. Finally, they need to utilize the
13 706 Joint Conference on Broadband Deployment which
14 is a partnership with the states, and also the
15 Federal and State Boards on Universal Service and
16 Separations to formulate policy options and
17 recommendations. Thank you very much. I'll be
18 happy to answer questions at the appropriate time.

19 MS. KRAVETZ: Record time. Thank you.
20 Let's move on to John Conley from the State of
21 Colorado.

22 MR. CONLEY: My name is John Conley and

1 I'm from the State of Colorado. I am most
2 recently the Deputy State Chief Information
3 Officer for the Governor's Office of Information
4 Technology. I've just recently also taken the
5 position as the Statewide Internet Portal
6 Authority's Executive Director. When I was with
7 the State of Colorado, it was my team that oversaw
8 broadband deployment in our interaction and
9 reaction to the BTOP and BIP programs. I continue
10 to take that work with me as I went on to my new
11 role with SIPA, the Statewide Internet Portal
12 Authority.

13 Before I get to questions and answers, I
14 think the only two things that I would say is the
15 conversation around broadband is very timely
16 today, and broadband deployment is critical for
17 governments to retool and allow and create and
18 foster more accessibility of citizens accessing
19 those government services, and broadband
20 deployment should be and needs to be in my opinion
21 and underlying topic when we're talking about
22 health care reform and education reform and any

1 type of sizable debate or discussion because it is
2 this infrastructure that in fact will be the
3 backbone of how those two major initiatives are
4 brought to out to citizens. So I think these
5 workshops are timely, I think the discussions are
6 on target, and I look forward to questions and
7 answers today. Thank you.

8 MS. KRAVETZ: Thank you. Charles Ghini
9 from Florida?

10 MR. GHINI: I am Charles Ghini and I am
11 the Director of Telecommunications Division of the
12 Department of National Services. I'm a veteran of
13 the State of Florida government. I've been there
14 24 years. I started as a programmer and moved my
15 way up. But I've always been technically oriented
16 with mechanical engineering from France where I
17 came from 20 years ago, and also I have a computer
18 science degree which gave me a very interesting
19 perspective when I approach these broadband
20 issues.

21 Currently my position is to run the
22 Division of Telecommunications, and this division

1 for the past 30 to almost 35 years now has been in
2 enterprise services delivery and forming strong
3 PPP or public to private partnerships. We deploy
4 telecom for the state government, for local and
5 cities and for certain nonprofit organizations.
6 In a nutshell, a kind of nonprofit telecom
7 service.

8 Twenty years ago we started a project
9 and at the time I was working on mainframes and we
10 created an SNA backbone throughout the State of
11 Florida which I thought was kind of a crazy idea.
12 Mainframe was stand alone. Why do you want to
13 create a network of mainframes and that sort of
14 thing? But as I went through this program, I
15 discovered that it was not a pure enterprise we
16 created. We changed duplication into the
17 robustness of the network, better services, and we
18 ended up having a network with greater quality of
19 service by pooling our efforts.

20 We at the Division of
21 Telecommunications, myself and my predecessor,
22 always follow certain guidelines. First, as I

1 said, we try to acquire services competitively, we
2 have to with few exceptions, from the public
3 infrastructure and create some services that we
4 resell to our consumers. The trick to this
5 process is we need to understand the needs and the
6 wants of our customers, teachers and pricing,
7 always to balance those. We need to aggregate the
8 goals of our consumers without brushing aside our
9 consumers' individuality and individual needs. We
10 also tried to create standards, standard solutions
11 that give the consumer some local autonomy. You
12 need to empower your consumer or your user to be
13 part of the solution and not make him a bystander.
14 In a nutshell, we tried to roll out technology
15 that is convenient and affordable, convenient not
16 only to use but to procure, to manage and to
17 account for.

18 I've been with the department for 20
19 years, and since the SNA network to today's
20 state-of-the-art MPLS network and other services,
21 we have tried to apply those constant points that
22 I just described, and I believe that those

1 concepts, those points, those ideas can be
2 translated into broadband deployment in general
3 for the State of Florida and the nation. I think
4 it is important that we create a synergy between
5 the provider and the consumer, to validate the
6 needs, and create some convenient technology that
7 can be managed effectively and affordably for
8 everyone. This is what the organization that I
9 represent has been done for the past 35 years and
10 we are hoping to keep on doing that in conjunction
11 with this effort. Thank you.

12 MS. KRAVETZ: Thank you. Let's move on
13 to Karen Jackson.

14 MS. JACKSON: Good afternoon, everyone.
15 I was thinking as everybody was providing their
16 introductions as to how that I was going to sit
17 here and tell you that I was qualified to be on
18 front of you today and I realized that probably
19 the biggest qualification is that I've been at
20 this long enough to remember the days when
21 somebody asked, "Broadband? What's that?" I've
22 been with the commonwealth running the broadband

1 programs there since the late-1990s. The
2 commonwealth took a very early approach to
3 broadband in trying to figure out not exactly how
4 to get people connected, but more what were they
5 going to do with the connections that back at that
6 time were becoming available through dialup. So
7 we started on the demand side and through the
8 years through the leadership of Governor Warner
9 and now Governor Kaine have worked our way
10 backwards. We started with demand and are now
11 working on the supply side as well as the demand
12 side and it's very fulfilling to us to see that
13 now at the national level those two topics have
14 finally been married together which is something
15 that we haven't seen in the past and we're excited
16 to be part of the process, so thank you for
17 inviting us to be here today.

18 Somebody earlier mentioned data. One of
19 the most daunting things that the commonwealth has
20 faced over the years is trying to find out exactly
21 where broadband is and isn't from an availability
22 standpoint. The map that you see in front of you

1 is now currently online through
2 wired.virginia.gov. We worked with 30 providers
3 who voluntarily gave us data and we used existing
4 state assets to be able to map where broadband is.
5 By broadband we used the FCC's current definition
6 of 768. We adopted that early on and used that so
7 we think that's where the ceiling should be,
8 that's still up for debate, but that was the
9 footprint that we used for that slide there.

10 After the NTIA announced the initiative,
11 we found that the data that we had collected was
12 not necessarily what the communities would be
13 needing in order to prove their case for unserved
14 or underserved in rural. So we partnered with
15 Virginia's e-Corridors program, again our state
16 group called VGIN, and the program that we have
17 through the Center for Innovative technology and
18 produced an interim map that extrapolated through
19 using a census block level the amount of data
20 coverage that we have using the provider data we
21 started with but going through an extrapolation
22 process to be able to determine where the census

1 blocks where that were un- and underserved. That
2 map was then distributed back to the providers
3 that had worked with us in the first round for
4 them to take a look at and then was distributed to
5 local governments that were planning on
6 participating in the NTIA program.

7 What you see in front of you is the
8 other side if you will of the Commonwealth's
9 broadband efforts. From 2007 through 2008 the
10 Commonwealth undertook a process not dissimilar to
11 what the FCC is taking currently. Under the
12 leadership of Governor Kaine, now CTO Aneesh
13 Chopra and now Senator Mark Warner, I was
14 fortunate enough to work with a distinguished
15 group of individuals about 72 in number who were
16 put together and called the Governor's Broadband
17 Roundtable. We spent a year traveling across
18 Virginia meeting with stakeholders, meeting with
19 citizens, trying to identify the barriers, trying
20 to identify the opportunities for broadband. What
21 you see on the slide is actually a screen shot
22 from what we're calling an Online Community

1 Toolkit. It's a process through which communities
2 can work their way into a safety net type process
3 starting with what are you trying to do, who are
4 you trying to connect, working your way through
5 what assets are available, towers, tanks, prepaid
6 assets, telecom bills can be used, and then moving
7 through the process of what legal ramifications
8 are out there, what opportunities are out there in
9 terms of applications, in terms of funding. At
10 the end of the day when all the math is done and
11 you put it all together, we had determined that we
12 had distinct roles, you can see some of the pieces
13 that came out of the toolkit there, but the
14 distinct roles that different leaders in the
15 community need to play. The biggest challenge we
16 had was people to one another. We found that
17 there are very siloed efforts going on in
18 communities and it was how to break down those
19 silos that was really the biggest challenge
20 because once you were able to assimilate all the
21 assets that were available, the funding streams,
22 the e-rates, rural health, and get everybody

1 around the same table, it was much easier to move
2 an initiative forward than it was trying to push
3 it from the top down. So Virginia like I believe
4 Oregon would go along with this in saying that
5 we're a public/private partnership advocate. We
6 think that's the best way. There are cases where
7 municipals can be of benefit, but believe strongly
8 that it needs to be a public/private partnership.

9 At the end of the day, we believe the
10 state's role is more than advocate, to take down
11 barriers, to look at the legislative process, to
12 look at the different policies and procedures that
13 the state has in place and to try as much as we
14 can to make it a more friendly environment for
15 broadband. We also believe that at the local
16 level there are zoning restrictions and different
17 localized policies and procedures that need to be
18 expedited. I think a lot of people have probably
19 found that out through the permitting process with
20 some of the BTOP grants and the timeline there.
21 At the end of the day, we had a community in
22 Franklin County, Virginia, that worked their way

1 through the toolkit and essentially went from a
2 \$500,000 ask with a private provider to do
3 wireless across 70 percent of the county, by
4 identifying their assets, identifying their
5 opportunities, going through every element of the
6 toolkit that we had suggested, that cut that
7 out-of-pocket ask down to \$83,000 that actually
8 had to be taken out of the county's coffers. So
9 we know the model will work and it's up online,
10 it's public domain for anyone to use, and we look
11 forward to helping and providing whatever data we
12 can to the process as it goes forward.

13 MS. KRAVETZ: Thank you very much. Dr.
14 Craig Orgeron from Mississippi?

15 DR. ORGERON: Thank you Erik and Sharon
16 and the FCC for this panel and the opportunity for
17 Mississippi to have a seat at the table.

18 I'm Craig from Mississippi. I work at
19 the Mississippi Department of Information
20 Technology Services which is the central IT agency
21 for the state that provides data center, telecom,
22 procurement. We are really at the table because

1 Governor Barbour has created a Task Force on
2 Broadband.

3 What I wanted to do was give you a
4 little bit of a taste of what is going on in
5 Mississippi. I think a lot of the issues
6 especially in rural states that you're going to
7 here are similar. In 2004 there was a Broadband
8 Task Force that was set up that did an early look
9 and what came out of that was some legislation
10 that's still on the books that provides tax-based
11 incentives for investments in broadband. That was
12 a first effort. There were really no other
13 offshoots of this program that led to adoption,
14 sustainability, aggregating demand or that kind of
15 thing.

16 Mississippi many times unfortunately
17 ends up at the bottom of most lists. We tend to
18 be at the bottom of lists for computer ownership,
19 at the bottom of the list for access and use of
20 broadband, and it is a program like this one that
21 gives us an unprecedented opportunity in the state
22 to move forward in many of the areas that we have

1 traditionally lagged behind.

2 When we looked at the opportunities that
3 were available to us we tried to make some
4 decisions. One was that obviously we needed to
5 map and to find out where the availability existed
6 and how to remedy areas that availability did not
7 exist. One of the things that's interesting, and
8 this study actually cites some FCC work that John
9 Horrigan did, a lot of individual citizens simply
10 do not know what they have access to, and if you
11 ask them do you have high speed, they can tell you
12 about the commercials they see on TV, but they
13 really don't understand. Mississippi's program is
14 rooted in digital literacy and getting started in
15 that direction to help us to continue to move
16 forward.

17 To do that the governor reconvened the
18 task force, a new Mississippi Broadband Task
19 Force, last spring, and the task force set about
20 trying to think through after the Recovery Act was
21 prior to the NOFAs that are funding these
22 opportunities, to think through the kinds of

1 things that we needed to do. It was a small
2 group. It was a solid group. The statewide IT
3 folks were at the table. The public utilities
4 folks were at the table. The economic development
5 folks were at the table. The Governor's Office of
6 course was at the table. We solicited across
7 government some proposals to tell us the kinds of
8 things that we should be doing that we need to
9 invest in, and we collected probably about 60 to
10 65 of those to read through and move on from.

11 With mapping we opted to go for a
12 competitive RFP to move forward, selected a vendor
13 and put an application in. With the BTOP program
14 there were a number of strategies that we could
15 have taken. What we opted to do was to very much
16 focus on sustainable adoption, really and truly
17 digital literacy being the core focus with
18 aggregating demand and taking that route prior to
19 spending dollars to invest in infrastructure.
20 Mississippi isn't really starting with a program
21 so there is at least an opportunity to build one
22 from the ground up.

1 What I'd like to say in closing is there
2 was some good discussion that we've had with the
3 panelists, and a couple of the points that were
4 made were access and the issues of access, and for
5 Mississippi I think it's even a precursor to
6 simply having access or aggregating demand. The
7 issue really is digital literacy and helping
8 citizens to simply understand what it is that they
9 may even gain access to. To that end, we're
10 focused at a very community level of effort in
11 building a Connecting Communities Program in every
12 one of our 82 counties, 65 of which are considered
13 rural. In those counties we're going to develop a
14 digital literacy curriculum and role out that
15 curriculum in a way to try to educate
16 Mississippians who are out there. Of the 2.9
17 million Mississippians that we have, 1.8 million
18 of those 2.9 million don't have access or don't
19 even use broadband. So that is the core component
20 of what we want to do, to increase digital
21 literacy in the state, especially in the
22 Mississippi Delta region. Thank you very much.

1 MS. KRAVETZ: Let's move over to Jane
2 Smith Patterson and pull up her slides from North
3 Carolina.

4 MS. PATTERSON: Thank you very much,
5 Laura, and thank you to the FCC for holding these
6 workshops and for the work you're doing to get us
7 back to number one in the world and opportunity to
8 have access to broadband as well.

9 I'm going to start by saying that North
10 Carolina has had a Broadband Authority since its
11 beginning in 2001 established by the state. It is
12 composed of folks, namely the Governor, the House
13 and the Senate and a number of ex officio
14 positions cutting across state government. It has
15 the opportunity to really set the policy for the
16 state, it's had the opportunity to provide
17 incentive funding in the state, and has worked
18 very hard at public/private partnerships across
19 the state including from the very beginning having
20 the right to give funds to private-sector
21 companies in bids to go into parts of North
22 Carolina. We did our first map in 2001 and have

1 mapped every year since then. I would encourage
2 you to go to our Website which is at www.e-nc.org
3 which you can right there. And the mission of the
4 state as you see here is that everyone has the
5 opportunity to learn how to use computers, learn
6 how to get on the Internet and have access to the
7 Internet. That has been the driving goal that
8 we've had. We have met every goal we set in 2001.
9 All those goals are on our Website, all of our
10 toolkits that have to do with e-communities, et
11 cetera, are there, all the toolkits for
12 businesses, for wireless, for broadband, all in
13 the public domain. We have never withheld any
14 kind of information from the citizens, and the
15 citizens have served on all of our task forces
16 using audio conferencing and video conferencing to
17 serve even if they're not a member of the
18 authority itself.

19 This shows you that Internet usage is
20 moving faster than you think. This is one of our
21 five separate looks at North Carolina and where we
22 are going back to 1999 where 36 percent of the

1 state knew anything about this, moving up to 2008
2 where 70 percent actually have Internet access,
3 and 83 of our citizens' households can purchase it
4 if they want to, but 70 percent are purchasing in
5 North Carolina. If you'll look, we've just
6 completed our new set of goals for the next 10
7 years. I will tell you to go on the Website and
8 look at that. I want to say three things that are
9 very, very important here, and that is that we
10 believe that you have to have principles to guide
11 you. We have a series of these in here. This is
12 our 10-year action plan going to 2019 based on an
13 analysis of an environmental scan done by Baller
14 Herbst for us, and working with citizens across
15 the state to come up with that plan.

16 This shows you what else is left to do.
17 We track everything we do. We not only track it,
18 we research it before we start it, we implement it
19 and we go back and we have third parties review
20 it. We still have 574,697 households without any
21 access and we're very interested in that. We'll
22 do our next citizens' survey this next spring. We

1 want to see a move to Lifeline Online for the FCC.
2 We'd like to see that morphed that way. These are
3 the steps we see you have to go through. Those
4 are all described on our Website, but supply and
5 demand have been there at the fore of what we've
6 done since the very beginning.

7 I would like to give you one last thing
8 before answering questions from folks, and that is
9 mapping is only one step. If you do not do all
10 these other things I've mentioned, mapping simply
11 provides you if I'm on my sailboat a spyglass
12 looking at everything. It doesn't really tell you
13 whether the water underneath you has sharks in it
14 or whether it's going to be sailor's delight with
15 red sky tonight, but it just tells you something
16 and it helps you track where you are. I would
17 note to you on this that the gray, if you wonder
18 what that is, that's the company provider that
19 doesn't want us to disclose anything, so that's
20 what the gray is up here under the nondisclosure.
21 But we use this all the time. We use GIS as an
22 analytic tool with which to help us make

1 decisions, and this is critical, that mapping must
2 be tied in my opinion to the analytical tools that
3 are out there to help your whole state make
4 decisions on this. I'll be glad to speak to
5 anything else. We were going to answer questions,
6 I think, and I want Lauren to know that I got rid
7 of a number of slide and came in at 35 seconds to
8 go, except I will say one thing, the hardest job
9 I've ever had is to stay married for 40 years to
10 the same guy.

11 MS. KRAVETZ: I wasn't going to ask. As
12 I told you in email, we were going to let you
13 slide on that, so that's fine.

14 I want to remind the panelists that you
15 probably saw that we do have a timer here. Once
16 we get into question and answer, we are setting it
17 for 5 minutes as a guide to you for how long
18 you're speaking, we don't have a hook, but just as
19 a guide to you for how long you're speaking.

20 Now that we've heard an introduction
21 from each of our state panelists, I'd like to turn
22 it over to Erik Garr from the Broadband Team to

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1 start the interactive questions.

2 MR. GARR: I'm going to start with a
3 very tactful one, and that is who has
4 address-level data and can we see it? I'm curious
5 as to what is the state-of-the-art in data
6 collection today and do you expect better data
7 going forward. You've all said something that's
8 very important to us and that is making sure that
9 we have the right fact base built here.

10 DR. ORGERON: Mississippi does not have
11 address- level data, and you can see it.

12 MS. PATTERSON: You can go to our map in
13 North Carolina, put your address in and it will
14 tell you where you can go and if you have access
15 or not, but we cannot show you in the cases where
16 we have nondisclosures and where it's proprietary
17 every bit of the data that rides under that.

18 MS. JACKSON: Virginia does have
19 address-level data. We don't have the ability to
20 query at the address level right now. One of the
21 biggest challenges that we found was the smaller
22 the provider and the more rural the provider, the

1 less likely they were to have address-level data.
2 They may have propagation circles, they may have
3 shape files that they work with, but they don't
4 have the granularity of data that we were looking
5 for in the first round. We've since found a
6 couple of private companies that are going to help
7 us through this second phase, hopefully a funded
8 phase, of what we want to do in being able to take
9 those shape files and turn them into address level
10 and then we'd be able to query appropriately, but
11 we just ran into the most rural providers and the
12 smaller providers didn't have the level of
13 granularity we needed.

14 MS. PATTERSON: I'd like to add one
15 thing here if I could. In our new map that's
16 coming up, if a provider wants to go to that or
17 you want to go to it, Karen, you'll be able to
18 draw your own shape files working with our
19 provider who has helped us with our maps so that
20 citizens can really do that.

21 MR. GHINI: Florida does not have that
22 information readily available. We have a lot of

1 data, but we don't have it consolidated. We did
2 however I think, North Carolina, we had the
3 procurement on the street and we intend to award
4 to a company to help us do just that, and we're
5 working on it as we speak.

6 MS. PATTERSON: I thought you said they
7 did in North Carolina. We have a contractor we
8 worked with using our data who can help us develop
9 the shape files that you can go in and actually do
10 that.

11 MR. GHINI: We also combined that
12 mapping effort with sustainability programs, so we
13 tried to combine that on the same RFP.

14 MR. CONLEY: The same answer here, that
15 Colorado does not have address-level data yet. We
16 are working with a provider to obtain that data as
17 quickly as possible because I think as everyone
18 was saying here, it is what's going to drive our
19 decisions going forward, but it was just not
20 thought of in the past. And providers have been
21 unwilling to make that data accessible, and so one
22 thing that we've lobbied for and has been in many

1 of our discussions at the federal level and at the
2 state level is leveraging and working with in
3 partnerships the private providers to provide that
4 data willingly but also using regulations if need
5 be to make that data accessible because without it
6 I think we are shooting in the dark and we're
7 going to hit a lot of things, but we're also going
8 to miss a lot of things, and some of the things we
9 hit will be wrong.

10 COMMISSIONER BAUM: I think if you leave
11 the data collection to the states you're going to
12 get about a dozen of them that are going to be
13 able to do it right and the other 38 you'll be
14 explaining to Congress why you didn't get the
15 information unless the FCC takes a lead role in
16 continuing negotiations with the carriers about
17 how to do this. I understand there have been some
18 preliminary agreements reached maybe not down to
19 the address level, but we need to push that
20 envelope as far as appropriate because if you take
21 it one state at a time, we're just not going to
22 get it done by February. So we need that

1 information, the feds are going lead out and get
2 that information and we'll keep it proprietary as
3 much as we can, but we really need to have the
4 federal government leading out here or else you're
5 going to have a very incomplete picture come
6 February. So we encourage you to use all your
7 leverage because like I said in my presentation,
8 we sometimes get this information if we have
9 leverage but our leverage is limited to appending
10 mergers and acquisitions where we have some
11 leverage to encourage broadband deployment. So
12 unfortunately if the feds want the plan they're
13 going to have to put the leverage and get the
14 negotiations going so we can get the information
15 we need because without address- level at some
16 point in the future, we're not going to be able to
17 accomplish what Congress wants to do.

18 MR. GARR: I have one more, or actually
19 a bunch of questions, but I'll ask one more and
20 then I'll ask my teammates to join me in the
21 questioning as well.

22 Several respondents mentioned the

1 importance of digital literacy and that's clearly
2 an important, important issue. I have two
3 questions. One is how do you measure a successful
4 digital literacy program? Second of all, what
5 would your suggestion be for a role for the
6 federal government in helping to promote those
7 types of programs? Actually, I'll direct that to
8 Craig. I think you have done quite a bit of work
9 on this. Maybe you can start us off, and if there
10 are other comments that would be great.

11 DR. ORGERON: When we were around the
12 table struggling to put this together, the
13 question of metrics, to questions of quantifiable
14 data, and the questions of measurement were
15 certainly foremost in our minds. What we are
16 looking to do is literally to do some pretty
17 classical pretests, posttests, sort of administer
18 the program, take a baseline benchmark and then
19 bring people back in in a cohort and look to see
20 if those literacy programs were helpful. In terms
21 of the federal government's assistance, I guess I
22 could maybe leverage some of the language from the

1 program which was a but-for. I do think the State
2 of Mississippi but for this would be doing
3 something at this level, Erik, in all 82 of our
4 counties to move this forward.

5 MS. PATTERSON: Erik, from the very
6 beginning we developed digital literacy. We tried
7 to develop at the local county level from the very
8 beginning, the capacity for the counties to plan
9 for themselves, to be able to have public computer
10 centers available and to be able in the future to
11 have that capacity in their counties. So digital
12 literacy programs were funded by us after they had
13 had a e- communities program that had gone through
14 that planning process, and it was open to
15 statewide organizations as well as the local
16 county organizations. It made a big difference.
17 The second thing was the e-communities program
18 itself. Each of those counties had their own plan
19 for their counties that addressed public access,
20 digital literacy, addressed supply and demand, and
21 also was able to go after an incentive fund at the
22 state level on the plans that they wanted to see

1 implemented. It made a big difference, and we
2 track all of this with the citizens' survey which
3 I showed you there which shows you how to move
4 this forward over the process of the last 8 years,
5 and you saw the 70 percent penetration really down
6 to the e- communities we did back in
7 early-2001-2002.

8 MR. GARR: I think Sharon has a
9 follow-up.

10 MS. GILLETT: Actually, a follow-up to
11 that. Do any of the digital literacy programs at
12 the state level link to any kind of support for
13 the cost of the connection in someone's home or
14 business? Have you found that to be a barrier in
15 the digital literacy programs that you've worked
16 with?

17 MS. PATTERSON: For us we tried to make
18 certain that there was a public access center
19 within 40 minutes of every single citizen in the
20 state so that they could go there. We used the
21 library system, and then we created about a
22 hundred other public access centers and at those

1 centers, anyone coming in could get access to some
2 training, and the citizens themselves supported
3 these and ultimately took over responsibility for
4 funding them because they saw they were very
5 important.

6 MR. GHINI: I want to say that in
7 Florida we tried several years ago with the
8 Digital Divide Council all that stuff and what
9 happened is it was not sustainable. The adoption
10 has to be sustainable just like the sustainability
11 of the broadband itself and funding disappeared
12 and the support disappeared. We are trying right
13 now to get that procurement in through the mapping
14 and the BTOP to rekindle those efforts.

15 The measurement, we talked to the
16 Department of Education and our libraries. A lot
17 of folks certainly go to the libraries to offset
18 the fact that they don't have access. We can do
19 some measurements through that and they have been
20 pretty successful and we're trying to support
21 those efforts.

22 We are doing lessons learned right now

1 and hopefully with that new procurement trying to
2 put all those pieces back together, but it has to
3 be a sustainable effort. Otherwise it will fizzle
4 away and that's what happened last time.

5 MR. CONLEY: I think the one thing that
6 I would add to the question of what can the
7 federal government do is just like we've seen some
8 of the states mention is continue to be the
9 aggregator of our good ideas and put forth the
10 toolkits of what you see working at the state
11 level. So much what I see now is that states are
12 recreating successful programs because we don't
13 know what other states are doing. Part of that is
14 we don't as states tend to look outside of our own
15 borders and we think they cannot have a program
16 that would work for Colorado in North Carolina.
17 But being that advocate and being that aggregator
18 at the federal level will show that that in fact
19 is now the case. Many of us have urban areas,
20 many of us have rural areas, we're facing the same
21 issues. Our geographies may be different, but I
22 think many of the challenges are still the same

1 and so now being an aggregator of that demand and
2 of those best practices would greatly help the
3 states.

4 COMMISSIONER BAUM: Just to comment on I
5 think you said something about encouraging
6 connections, that brings back into discussion the
7 Universal Service Fund and whether or not that
8 fund is going to be expressly authorized at all
9 levels to deal with broadband. Right now it's
10 indirectly subsidizing that through the High Cost
11 Fund and the linkup still focuses largely on wire
12 line. Again that's a sea change that has to occur
13 if the system is going to sustain itself because
14 we want to make the business models work as far as
15 they can penetrate those areas, but beyond those
16 areas we're going to have to have some kind of
17 operational subsidies to keep some minimum
18 broadband deployed and that requires fundamental
19 change in those program, so that underpins this
20 discussion.

21 MS. GILLETT: Didn't Florida make
22 Lifeline available to bundled services?

1 MR. GHINI: I don't know, but I wanted
2 to point out something listening to my colleague
3 here. If you don't have an holistic approach and
4 you let that adoption and sustainable issue,
5 agency per agency, you don't have the statewide
6 vision, you're increasing your chances of failure,
7 and that's the way we've been going at it, the
8 wrong way. We were too fragmented in Florida.

9 MS. JACKSON: Virginia has taken a
10 little bit of a different tactic. We obviously
11 had the digital literacy programs, we had the
12 public computing centers primarily through our
13 libraries and some of our public schools. But we
14 found that there was as much a digital literacy
15 issue within our business community within the
16 rural areas as well as with our health providers,
17 and so we have actively through the toolkit
18 through awareness we've done Broadband 101,
19 Security 101, Wireless 101, just general education
20 for anybody who wanted to walk through the door.
21 We have also done programs in conjunction with our
22 community colleges as well as our 4-year

1 colleagues one of which has been providing
2 e-commerce existence for small businesses for now
3 15 years, with measurable outcomes where they can
4 measure the impact on their business by the sales
5 they've made and by the cost-efficiencies they've
6 gained. We are actually potentially stretching
7 the bounds a little bit on the mapping to do
8 mapping of health IT and telemedicine uses as well
9 as e-commerce usage as getting a benchmark and
10 then we'll use potentially the demand and the
11 awareness programs on those specific topics and
12 then be able to go back and measure them again to
13 be able to track metrics over time. We've found
14 that the user community didn't have necessarily a
15 child in school who was coming home and telling
16 about what they did during the way, but we found
17 that our businesses and our health care providers
18 in many cases were as far behind the digital curve
19 as some of the citizens we were dealing with.

20 MS. PATTERSON: Two things. One is that
21 the whole issue of sustainability, I really hope
22 that the FCC would be a leader in all of this, but

1 I would really hope that the FCC would see this
2 opportunity to seed and lead and that the states
3 would each develop the capacity to deal with
4 broadband. Broadband is critical in
5 infrastructure as sewer and water. The federal
6 government has a major role in water and sewer
7 funding. It moves down to the states and the
8 states have statewide authorities on this. Doing
9 this for broadband would be a seminal thing for
10 this country in terms of the economic capacity of
11 the United States I think. So I would encourage
12 you to assist the states and their broadband
13 authorities, and to some extent placing the
14 designated authority to apply has helped that very
15 much.

16 The second thing is absolute, continuing
17 everyday leadership by every single one of your
18 cabinet officers, by every single person in the
19 White House, every single person at the FCC, to
20 press how important and critical this is because I
21 think setting that sort of context that we work in
22 that broadband is critical to this country and to

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1 its economy and to quality of life is critical.

2 MR. GARR: Excellent point, and
3 hopefully one of the reasons of doing all of these
4 workshops is to start taking that leadership.

5 A couple questions more on the supply
6 side. We've had some discussion about literacy
7 programs and things like that. I'm curious a
8 little bit and I'd like to target this toward
9 Virginia because you had a slide up, and maybe we
10 can pull it back up. So if you could bring up
11 Karen's slides again. There was one with a nifty
12 bar chart. I'd like to just have you spend
13 another minuet on this because we only gave you 5
14 minutes to talk and I actually was very interested
15 in this slide. Help me understand of where the
16 costs go here because what I think I was taking
17 away is that you have some kind of sharing
18 agreement with the providers in your state where
19 state and local are bearing a portion of the costs
20 of deployment. So if you could just tell us how
21 this works that would be great.

22 MS. JACKSON: The slide that you see in

1 front of you is based on a study that was done and
2 a test that was done in Franklin County, Virginia.
3 On a previous slide we showed you the community
4 toolkit and that was the process of doing an asset
5 inventory, getting your stakeholders together,
6 what applications did you want to run and what
7 funding was available. What they were able to do,
8 the two bars that you see that have the \$500,000
9 and the \$83,000, those are actually the
10 differences between the actual costs that the
11 county was quoted by a private wireless provider.
12 The 500K was the original quote. That was
13 absolutely not doable by the county. That was
14 cost-prohibitive for them. Through going through
15 the toolkit they were able to leverage some towers
16 that they already had, they were able to waive the
17 rents, they prepaid some telecom expenses which
18 provided some CAPEX up front for the provider to
19 go out and buy the equipment. They found out that
20 their first responders had some DHS or DCJS grants
21 that were coming in for interoperability, so they
22 were able to put up a couple of extra towers. The

1 \$500,000 was to cover that 70 percent of the
2 residents in the county. At the end of the day,
3 once they had completed the toolkit and going
4 through that process as well as aggregating all
5 the funding that was available in the county to
6 apply for those, they were able to only take
7 \$83,000 out of the actual general fund of the
8 county because the delta had already been bought
9 down by other pieces that were already currently
10 available in the county.

11 MR. CONLEY: Leaving this slide up, I
12 think one of the things this highlights greatly
13 is, one, states need to look at all of the assets
14 that they have available to them. Community
15 college rooftops become great places to put towers
16 that are lease neutral to the providers. But it
17 also showcases that the federal government needs
18 to act in a unified way or a uniform way and allow
19 states to use assets that have been purchased
20 through other grant programs to be able to deploy
21 broadband infrastructure if you want a universal
22 type of deployment or more ubiquitous type of

1 deployment. The Department of Transportation has
2 tons of fiber riding along highways all across
3 America, being able to tape into that and easing
4 those restrictions, Homeland Security grants that
5 are putting up public safety digital trunk radio
6 tower systems. I have 168 towers in my state that
7 I'm willing to work with wireless or wire line
8 providers if only it were allowable and it was
9 easier than it is today, and not to get into
10 right-of-way issues and things that counties and
11 states need to tackle as well but are more local
12 issues. I could go on for a long time, but that's
13 all.

14 MS. PATTERSON: And U.S. Forest Service
15 towers.

16 MS. JACKSON: The Commonwealth actually
17 had listened to a lot of the private providers,
18 the ISPs out there, and we passed legislation I
19 believe it was two sessions ago that require the
20 State Police to at least consider based on loads
21 and the actual structural content of the tower, to
22 allow wireless ISPs onto those towers if they're

1 funded by the state. So we did have to go take a
2 little bit of a legislative route there to be able
3 to get what we wanted, and I don't believe there
4 are any state leased towers used in Franklin
5 County, they were all local. But there's another
6 section in the toolkit that provides our counties
7 with best practices for zoning through the
8 economic development documents that they're
9 required to prepare for the state. They are
10 encouraged, and some counties have included
11 chapters on how permitting and zoning and tower
12 place will be handled right up front so that there
13 are no surprises to the providers.

14 MS. PATTERSON: May I respond? You may
15 not ask this question so I wanted to respond to it
16 anyway. One of the things that's very important
17 is that the State of North Carolina has given
18 money of its own out there in the state to
19 providers through bids in areas that were critical
20 to us. In those areas of the state that are
21 critical in terms of getting out there, we have
22 funded for-profit providers to go into fiber

1 sheaths with nonprofit companies with for-profit
2 cable companies, with electric co-ops where they
3 make a decision on that fiber sheath to work
4 together to maintain it. And a further decision
5 that because of that money that any provider who
6 wants to come on there that's a nonprofit, et
7 cetera, or for profit can come on with a 25
8 percent discount. So that that means that a small
9 nonprofit wireless provider is profitable from the
10 very beginning which is not easy for a small
11 wireless company. So I think that states need to
12 begin to look just as the federal government does
13 with the federal government getting into these
14 sheaths with these nonprofits and for-profits and
15 others so we begin to see a new paradigm of how
16 you deploy broadband out in fiber sheaths. We've
17 proved you can do this with the state funding this
18 out there with all these different groups, so the
19 federal government should be able to do that as
20 well.

21 MR. GARR: John, just a follow-up to
22 your comment about the stuff all around your state

1 that you'd like to have better access to. Give me
2 some examples of what's it like to try and
3 coordinate a deployment with the federal
4 government, a provider and your office? Just to
5 help us in a personal way, what is it really like?
6 Is this 10,000 phone calls, no one calls you back
7 kind of a situation? Just describe it for us and
8 try and be specific on what the real business
9 problem you're trying to solve is and maybe give
10 us some advice on how we can make it better.

11 MR. CONLEY: I think I could handle
12 placing 10,000 calls and not getting a call back.
13 It's actually I get everybody in the room, they
14 all nod their heads and then they all walk away.
15 They say that sounds nice. I wish I could help
16 you out. You're actually going to need to such
17 and such and such.

18 I think the best example that I have,
19 and I'm not faulting them, I understand we're
20 entirely changing the way we're asking people, our
21 federal counterparts, our state counterparts, our
22 public and providers to think about this, and I

1 understand that change is challenging, but the
2 best example I have is the Department of
3 Transportation, and I'll misquote the acronym, but
4 the Federal Highway Administration. They're
5 willing to sit down and they're willing to say,
6 yes, we totally support broadband deployment. You
7 want to us our fiber? No.

8 COMMISSIONER BAUM: The law stops us.

9 MR. CONLEY: Yes, the law stops us. You
10 want to use, you're going to know this better than
11 me, Commissioner, the URLs, the capital leases of
12 these, they kind of stop when you mention that.
13 Then the state Departments of Transportation, they
14 use the Federal Highway Administration saying, no,
15 we can't talk to you about that. It has to be the
16 Federal Highway Administration. Then you get them
17 in there and they're like, no, you can do this but
18 it's the state that won't let you. It's a lot
19 like talking to my 3-year-old child. Or maybe I'm
20 like my 3-year-old child. I have a lot of whys
21 and I keep giving answers but they keep leading me
22 to another why. So the business cases there,

1 using assets that are already deployed, not having
2 to deploy more infrastructure, not having to pull
3 those permits, decreases the amount of time needed
4 to deploy this type of infrastructure, it
5 increases the amount of subscribers and
6 affordability because we're already investing this
7 money. So I don't think it's a far-fetched idea
8 to say the business model and the return on
9 investment are there, providers want it, it's just
10 that I personally have not been able to get any
11 traction with even with everybody in a glass room
12 and everybody can look in and seeing that I'm not
13 doing any shady deals. That's the most
14 frustrating part and I think that goes back to the
15 earlier question of if the federal government
16 itself applies pressure to their own entities, I
17 think you do have willing participants in
18 governors and in state infrastructure, many of the
19 people who sit around the table, that will bring
20 our side to the table, but we need to call a foul
21 when it's a foul and we can't continue to allow
22 our state departments rightly or wrongly to say

1 that's a federal problem and then have the federal
2 government come in and sit there and say, no,
3 that's a state problem. I'll own some of that
4 because I've not sorted through the issues, but
5 it's stacks and stacks and hundreds of years of
6 paperwork. There is always some treaty from 1937
7 that will be that's what stops you, John. I can't
8 read in Middle English and I get confused.

9 DR. ORGERON: The Recovery Act really
10 actively sought applications which really crossed
11 boundaries and we heard that. Mark Siefert came
12 to us and we heard that. But I think to John's
13 point, it's so accurate. How do you incentivize
14 that in a way that is productive and moves people
15 forward in the right way? I would wholeheartedly
16 address that it's a huge challenge.

17 MR. GHINI: I can echo John's
18 experience. It can be dangerous to your health to
19 take some fibers and reducing the leverage in
20 those things. I think it is very true that you
21 bounce around in creating a silver thread between
22 those different funding mechanisms and

1 legislations to facilitate reusing leveraging what
2 already exists is very important. Many, many
3 times the federal regulations are thrown in our
4 face because the organization that I'm trying to
5 create with a holistic view to say, no, you cannot
6 do that. Many times the standards and the
7 technology used is counterproductive or wasteful,
8 and we are told also that these are federal
9 requirements, so that that is very difficult.

10 On the other side, I was talking about
11 those towers, and we in Florida sold our towers to
12 our current provider for our law-enforcement radio
13 network. The market for vertical real estate is
14 not as lucrative as people think it is. You have
15 to be careful about what you think you're going to
16 get out of these towers.

17 COMMISSIONER BAUM: Have you ever heard
18 a the discussion called pole attachments?
19 Obviously we have a lot of infrastructure out
20 there owned by utilities both public and private
21 that's sitting there that could be better utilized
22 than it is today if we get public cooperation, let

1 alone private cooperation. I understand there are
2 some voltage issues and interference issues, but
3 we're not so far off the infrastructure as you
4 might think if we could get everybody to
5 collaborate in the public/private sector. We'd
6 save a lot of money and get it done quicker.

7 MS. PATTERSON: I think it would be very
8 helpful is you thought about this policy-wise if
9 you would think about a working group of federal,
10 state and local folks focused on these issues and
11 that you actually had an ongoing working group
12 that would be able to tackle the issues and stop
13 some of the he said, you said, she said. That
14 would be a very useful thing that could come of
15 some of these workshops.

16 MR. GHINI: To your point, I've been
17 successful a few times in my career, but one time
18 I had the Department of Transportation, that is
19 Florida, and Highway Safety in Florida telling me
20 that I could not share a line because the federal
21 government would prevent that. So got so
22 frustrated and I found somebody in the federal

1 government to talk to me and said absolutely.
2 That's what you mean by sharing a line?
3 Absolutely. We like that. So sometimes it's a
4 disconnect, there is no silver thread that could
5 connect the functionality, and so we need to
6 emphasize those things. By the way, I forgot to
7 mention that we are trying to map in Florida, not
8 only private but public infrastructure as well. I
9 think that we are trying to leverage everything
10 that we can to make a complete picture on the
11 maps.

12 MS. JACKSON: I wanted to add a comment
13 on that. In Virginia we went back through the
14 Virginia Department of Transportation and looked
15 at the permits that were issued along the major
16 roadways to see which carriers had fiber there.
17 It's not very descriptive and you don't get a
18 whole lot of information, but if you do have a
19 rural ISP that's trying to connect into a backbone
20 it is helpful to know that at least from point A
21 to point B there was another provider that may be
22 willing to partner, but necessarily VDOT or a

1 public entity, but to be able to find the name of
2 another company that they could talk to about
3 potentially leasing some dark fiber, and we found
4 that there was dark fiber in places that we didn't
5 imagine and would not have known that had we not
6 been able to tap back into the permitting system
7 which is actually public record.

8 MS. PATTERSON: I'd like to make a point
9 about that if I could. I think Karen is right
10 about dark fiber being found all across the state,
11 but one of the issues I think we have to change
12 the opinion of, again, is that dark fiber is out
13 there for both private-sector companies, the state
14 and others and learning to share that dark fiber
15 in a way like we've done in the mountains in these
16 fiber sheaths is something that the FCC should
17 really take a look at because we have to get the
18 private sector and the public sector working
19 together if in fact we're going to get everyone
20 broadband in this country.

21 MR. GARR: That's a great point. One
22 follow-up. What permitting database are you

1 referring to?

2 MS. PATTERSON: Access into the rights
3 of way along state-maintained roads. They have to
4 go get permitting to trench along the roads and
5 they have to tell them what is going into that
6 trench.

7 MS. KRAVETZ: I have passed to Cathy a
8 question we received from one of your WebEX
9 participants, so I think we should proceed with
10 that.

11 MS. SIEDEL: There were actually two.
12 The first question, and I think we've touched upon
13 it already but I wanted to give you any of you
14 that were interested the chance to follow-up with
15 it: "In terms of the information that you're
16 getting from the service providers or from the
17 carriers in terms of the data itself, are there
18 limitations other than the proprietary nature and
19 issues about the extent to which you can share it?
20 Are there limitations on that data that you think
21 are issues and perhaps an issue that should be
22 addressed going forward or is it just the

1 proprietary nature of that data and how granular
2 it is?"

3 COMMISSIONER BAUM: I think it was
4 covered by Karen's comments about the fact that
5 the bigger carriers have this information, some of
6 the smaller providers do not, and you have to
7 figure out ways to creatively get that assuming
8 that they'll give it to you in the first instance.
9 It's proprietary so they're reluctant to show
10 their competition where they are or not, so we
11 have to figure out a way to overcome that and
12 that's what these states are experimenting with
13 and what we're about to find out whether or not it
14 will work with the FCC.

15 MR. GHINI: I was more interested during
16 my recent conversation as to ask the providers,
17 and that was not very popular, to tell me where
18 they were going.

19 COMMISSIONER BAUM: Yes. You don't want
20 to do that.

21 MR. GHINI: Because you can't figure it
22 out, the proprietary, yes, but where they are

1 going is very important because we're going to
2 waste a lot of money repaving the same road if
3 we're not careful. How to pull that one out of
4 the hat is a tough one, but it has to be figured
5 out.

6 MS. JACKSON: I think one point on that
7 is we had a lot of success basing our argument for
8 needing the data on desire not to overbill, not to
9 be competitive, of course we want competition, we
10 want choice for the citizens, but when it comes to
11 the point of are you directly overbilling
12 somebody, we found that the providers were a whole
13 lot more willing to come to the table when we said
14 we're trying to strategically place money for
15 unserved areas as opposed to trying to go back and
16 fill on top of underserved areas. There will come
17 a point when the underserved areas will be the
18 focus again, but we tried to focus our efforts in
19 ways that would allow for collaboration rather
20 than the providers feeling threatened that we were
21 trying to put public money into every build that
22 they had invested in.

1 MS. PATTERSON: I would respond also to
2 that in that it works the other way also, in that
3 in one of our incentives that we gave to a large
4 provider, we were able to use our mapping and our
5 GIS to be able to say we're not going to fund you
6 to go into this area because we knew there was a
7 wireless provider that was a nonprofit that we had
8 funded previously. So we wanted to make sure that
9 we cover as much as we can, not to allow the big
10 provider to go in and take from the small provider
11 in that sense. But that's again why it's so
12 important to try to get the information out there
13 from providers down to the smallest granular level
14 you can and to get it in a publicly verifiable
15 way.

16 MS. SEIDEL: One of the other questions,
17 shifting gears a little bit back to digital
18 literacy, and this came in from one of our WebEX
19 participants as well, is whether or not any of
20 your states have mandatory digital literacy in K
21 through 12.

22 MS. PATTERSON: North Carolina does.

1 Since the North Carolina Information Highway which
2 is an ATM/SONET fiber across the state in 1993, we
3 have had a requirement for you to pass a test in
4 order to get a diploma in high school. You can
5 get a certificate, but you can't get a diploma
6 unless you can pass this test. And there is a
7 curriculum starting in kindergarten through the
8 seventh grade, and then in the seventh grade you
9 can start taking the test. You have I think it's
10 two or three chances to take it. The goal behind
11 this was to get them to be able to use computers
12 for decision making in high school and to use that
13 all the way through and to create as a work force
14 investment idea. So it has had a couple of runs
15 at it in the legislature to do away with it, but
16 so far they have not done so.

17 MS. SEIDEL: Others? Thank you.

18 MR. GARR: A couple questions about
19 fiber, back to that topic for a second. You had
20 mentioned, and Jane, maybe we'll start with you,
21 this point about sharing which makes a ton of
22 sense. What efforts do any of you have other than

1 rounding everybody up and getting the usual
2 suspects in a room and trying to get people to
3 cooperate for either whether it's building codes
4 or any other things within your purview to try and
5 incent fiber being put certain places in your
6 state? Does anybody have programs like that or is
7 it all more retroactive, you're discovering where
8 people have already put fiber in different places?

9 COMMISSIONER BAUM: The only leverage we
10 get is when they come by some kind of rate case we
11 leverage them and ask them it would be really nice
12 if you'd set aside several million dollars for
13 deployment and put a fiber ring out there. One of
14 the discussions that we haven't had is it doesn't
15 do any good to talk about high-speed broadband at
16 the upper levels if you haven't got the backbone
17 or the middle mile to deliver that back from those
18 unserved areas, that was pointed out earlier, but
19 that is where I keep hearing that the original
20 BTOP money should have been focused was filling in
21 those gaps for the private sector who hasn't been
22 able to fund it. It doesn't do any good to put it

1 out there if you can't get the broadband width
2 back to the learning centers or the hospitals.

3 MS. PATTERSON: I would point out to the
4 listeners and also up here that the FCC has had a
5 pilot program out there for hospitals in the Rural
6 Health Pilot Project which has been very
7 successful I think, and at least in our state it's
8 proving to do so. The other thing I would like to
9 say is that we've had lots of really good
10 cooperation from the private sector providers as
11 well as nonprofits in order to get accomplished
12 what we have in North Carolina, but the fact of
13 the matter is that all of us need to put aside our
14 own personal hats and look at what this country
15 can do to move ahead, and the fact that the
16 federal level did away from the oversight for
17 utilities commissions on broadband really probably
18 set us backwards. So we need to look into the
19 future as a lesson to learn from that as we look
20 forward to any kind of FCC or utilities commission
21 programs, what will this really do in terms of the
22 next level of technology that's going to be

1 deployed and how should we set a program moving
2 forward that leads to the most open technology
3 policies and some assistance in funding from the
4 federal level to move forward because we're going
5 to need that in the country.

6 MS. JACKSON: Virginia used our tobacco
7 settlement money throughout Southside and
8 Southwest Virginia to build. It's now over 700
9 miles of fiber. Most of it's open access.
10 There's the Mid-Atlantic Broadband Cooperative
11 that's an open access network that borders with
12 North Carolina and that provides a nontariff
13 backbone connectivity rate for predominantly last
14 mile, there is some middle mile in there as well,
15 and so we've used that and leveraged it
16 extensively to get connectivity into areas that
17 otherwise --

18 MR. GARR: This has been Virginia making
19 a capital investment in that. Right?

20 MS. JACKSON: It's Virginia's Tobacco
21 Commission.

22 MR. GARR: The Tobacco Commission based

1 on the settlement?

2 MS. JACKSON: Right.

3 MR. GARR: What effect has that had on
4 carriers serving those regions?

5 MS. JACKSON: It's been a huge
6 incentive, it's been a huge enabler, because
7 without having to pay the local loop charges and
8 some of the tariff backhaul rates, those providers
9 have been able to go into smaller communities and
10 turn an ROI much more quickly, and in some cases
11 that's the only way they're able to turn an ROI in
12 those communities. Out in Southwest Virginia we
13 were able to get a couple of large data carriers
14 that went into a rural community in Russell County
15 that otherwise wouldn't have located there had
16 they not been able to get redundant coverage, and
17 that's thanks to the Tobacco Commission. There
18 was also federal money through EDA and I believe a
19 couple of other local sources that were included
20 in that, but without it we would not have been
21 able to have shored up some communities that
22 otherwise wouldn't have had service.

1 MS. PATTERSON: And there is another
2 example of again the FCC and the E-Rate, and in
3 North Carolina the way we have connected every
4 local school at 1 gig to the local school and 100
5 megs to each of the schools, we were able to bring
6 the broadband fiber out to the school districts
7 and then the local providers were able to bid
8 within that school district so that the E-Rate and
9 the state and the feds and the local providers
10 made a lot of money as a result of that FCC
11 program.

12 MR. GHINI: I would like to make a
13 comment on that rural health program. Yes,
14 Florida has received some money. Unfortunately,
15 it is impossible for me to leverage that
16 infrastructure to a possible anchor tenant because
17 it's reserved for rural health. That's really
18 counterproductive.

19 MR. GARR: I want to do a quick time
20 check. It's about 3:20 so we got about 15 minutes
21 left here. I have a couple other questions, if my
22 teammates have any others, please jump in.

1 I'd like to shift a little bit to asking
2 some questions about in FCC parlance are the
3 national purposes. Let me talk for 30 seconds on
4 what that means. If you read the authorizing
5 legislation for the Broadband Plan, it talks about
6 expanding broadband capability to all Americans,
7 but it also asks us to consider what role
8 broadband will play in certain national purposes.
9 There is a lot list of them. Many of them are
10 purposes which are also core to a state's mission.
11 So I think it's a unique opportunity to ask you
12 some questions about how broadband relates to
13 health care, energy and education, let's start
14 there, with the hypothesis here being that states
15 in many ways have comparable missions to the
16 federal governments on those topics and in many
17 cases you're actually much close to the problem
18 than we are. So if we could talk a little bit
19 about what you've seen in your states on those
20 issues, that would be really great, and if it's
21 okay with my colleagues, that seems a good way to
22 finish this out.

1 DR. ORGERON: I'll start off.
2 Mississippi has benefited greatly from E-Rate, and
3 we talked about that earlier, really through some
4 good foresight I think that the legislature formed
5 a Council on Educational Technology and was able
6 to bring a consortia-based approach to leveraging
7 those dollars, and it sounds similar to what Jane
8 had said, there's been a lot of infrastructure
9 build- out E-Rate in the state. As Charles
10 mentioned, Mississippi also applied for and got a
11 Rural Health Grant which is going to be propagated
12 across the state. We're anticipating potentially
13 325 end nodes. There's good news and bad news I
14 think with that. Of course, the good news is that
15 we're going to leverage the statewide contract
16 which is used for E-Rate, which is for K-12, which
17 is used for IHL, which is used for state
18 government, to potentially build out this rural
19 network. The question then becomes maybe
20 strategically or even tactically how you do you
21 then crosswalk that with these other initiatives
22 that are going on? How do you crosswalk with it

1 with community-based initiatives broadband
2 development, how do you crosswalk it with the
3 health IT in recovery which ONC has just released
4 funding opportunities for and we're trying to make
5 those connections work? Definitively in the
6 education space and also I think in health care
7 it's going to be a significant asset as these
8 programs come together and are interconnected. On
9 those two in Mississippi there is active moment.
10 Energy I can't speak to as much. I know that we
11 are pursuing any number of opportunities for green
12 initiatives, for grid-based energy governments in
13 the state, and I don't know authoritatively, but I
14 do know that it would take advantage of broadband
15 access for sure.

16 MR. GHINI: I want to say that E-Rate
17 was also helpful in Florida. I have problems with
18 E-Rate as many of us do, but I have also to say
19 that it was helpful over the years. It was able
20 to bring competition and reduce costs to broadband
21 across the board, so that that is a good thing.
22 Broadband as far as education, when I talk to

1 community colleges, and I have to say that BTOP
2 was created and that's a good thing, I don't how
3 to verbalize this, but creating some buzz around
4 broadband and unifying us at the state level, so
5 we need to promote that. But after talking to
6 these folks, they want broadband for the
7 institutions, but really they want broadband for
8 their customers, the students. Online courses are
9 not taken from the institution, otherwise you sit
10 in the classroom, it's from home. So there are
11 different shades of broadband at that level and we
12 see that as very, very important, the same thing
13 with telemedicine. On the energy side I'm the
14 same way. I'm not exactly sure what we are doing.

15 MS. PATTERSON: I'll just answer and say
16 the same with education, the E-Rate is so critical
17 to our nation. Without it if you took away the
18 E-Rate money from our nation, our schools just
19 would not be connected. Our classrooms would not
20 be connected. I did the first study with the NIIA
21 Council, I see Jim was back there, when we looked
22 at the schools in the country in the Clinton

1 Administration and 5 percent of the rural schools
2 were connected and that was it. Look where they
3 are today as a result of E-Rate, so that's
4 critical for North Carolina, and it is a
5 state/federal combined funding there. On the

6 issue of health care, we're going to be looking at
7 about 340 sites on the state Telehealth Network,
8 combining that, we're now trying to figure out
9 what to do with the 21,000 private doctors who
10 don't know anything about getting connected to any
11 network despite having to do the EMR records where
12 they'll lose money. So that's another issue for
13 us. But the other point I keep coming back to you
14 on is the ability of the federal, state and
15 private sectors to share the networks together and
16 how you get around to doing that is a really
17 important issue to look at. Finally, I would be
18 probably beaten over the head when I get back to
19 North Carolina if I don't say higher education
20 gets a lot of help from the feds and the K through
21 12 does too, but the community colleges get almost
22 nothing. Would you all say the same?

1 MR. GHINI: I'd say that too.

2 MS. PATTERSON: Community colleges which
3 are the bedrock of getting workforce investment
4 out there get almost no help in the area of
5 connectivity.

6 COMMISSIONER BAUM: I do notice that
7 we're talking about silos here. We're talking
8 about Lifeline, we're talking about health care,
9 we're talking about E- Rate, and they all have
10 different applications, different programs, and
11 nobody is coordinating that. That needs to
12 change. We need to fold those programs so that
13 it's an holistic approach because they're all
14 mixed together and interdependent. We should be
15 leveraging the E-Rate funds to provide broadband
16 to the businesses in the communities and it
17 shouldn't be limited to certain things. Right now
18 that's what we're dealing with so we'll have a
19 fragmented approach until we deal with that and
20 get the feds to start letting states have
21 discretion to tackle those issues based on their
22 local service stances because the District of

1 Columbia is not Alaska. As to rural health care
2 issues, obviously that's an Alaskan program.
3 You've got that message. Right? And being the
4 largest payer into the Universal Service Fund as
5 any state, and Mississippi being the largest
6 recipient, on the panel here you're got the big
7 payers and the big takers here and they both kind
8 of squawk about it.

9 DR. ORGERON: Receivers.

10 COMMISSIONER BAUM: Receivers. We look
11 at as southern reconstruction paid for by the
12 South with Florida paying for Mississippi.

13 MS. PATTERSON: With three versus three
14 here, I think the three of us could take you on.

15 COMMISSIONER BAUM: We got to get that
16 program all lined out so it makes sense per state
17 so every state can fit their own circumstances and
18 tackle their own problems with flexibility.

19 MS. PATTERSON: I would say one thing
20 here and that is that the states have a
21 responsibility too. You've heard Karen talk and
22 you've heard about Virginia and you've heard me

1 talk about North Carolina probably which are more
2 coordinated than the others here. The states have
3 a responsibility. If it's going to survive out
4 there and grow and be sustainable and evolving in
5 broadband, the states need to have an entity that
6 really pushes and that looks at innovation that
7 really works, and that's again what I said that
8 you need to be trying to figure out how to cement
9 that process as well.

10 MR. GHINI: I believe that the model
11 should be able to translate from federal to state
12 and there should be some common thread between
13 those different models in the different states to
14 create some holistic view because we are all
15 neighbors of each other also with special law
16 enforcement.

17 MS. KRAVETZ: John was going to jump in
18 at some point, so I was going to give him that
19 opportunity.

20 MS. JACKSON: I think from Virginia's
21 perspective we have tried very hard to dovetail
22 everything that we've done from the mapping

1 initiatives into the demand initiatives and now
2 into the initiatives that are coming out of the
3 ONC to make sure that we've put the building
4 blocks in place. The risk in that is if any one
5 of those pieces don't come along, then you've got
6 to realign and take a different tactic. Some of
7 the biggest areas that I think for the federal
8 government is coordination of the programs that
9 are coming out so that can all try to dovetail,
10 and as much as you can, get the programs to
11 dovetail between what you're doing. Virginia is
12 going to take advantage of the energy. We've got
13 several programs that are coming in for Smart
14 Grid. It just happens to be that at least one of
15 them is in a place that is currently their own
16 municipal exchange carrier under Virginia law so
17 we know that the broadband is tied to the energy
18 project there. We're not so sure about that in
19 some of the other areas. We're trying through the
20 toolkit to build awareness of broadband's role in
21 all of this, and I think the biggest awareness
22 piece that's come out of the FCC and the NITA

1 activities is that people are starting to tie the
2 line between broadband and the change of the
3 social condition, whether it's improvement in
4 health care or whether it's improvement in medical
5 records usage, there is suddenly this tie between
6 a technology and an improved -- you mentioned
7 telework and you mentioned public safety. There
8 are ties between this broadband technology and
9 changing the social environment and the economic
10 environment as citizens, and I think as long as we
11 can all work toward those types of goals, the
12 technology is there, we have to figure out how the
13 money should flow and we have to figure out who is
14 going to do what with which piece of the pie. But
15 at the end of the day I think the bigger end game
16 is to define the citizen outcomes that we want to
17 see improved and then figure how out the
18 technology can be applied. That's the tactic that
19 we're talking in Virginia and we're working very
20 closely with the Health IT group, and I think for
21 the first time in Virginia's history, broadband
22 will be referenced in one of the Health IT Council

1 advisory types of activities that are coming out.
2 So we're more and more starting to see a tighter
3 integration and if we can extend that to the
4 federal level and tie to outcomes I think we'll
5 all be better off.

6 MR. GARR: Just a quick follow-up and
7 then Jane, we'll come to you. You mentioned, and
8 I couldn't tell if you mentioned something that
9 was in existence or is planned, which is a smart
10 grid pilot in an area where there's an municipal
11 local exchange carrier.

12 MS. JACKSON: It's in existence now.

13 MR. GARR: Can you tell that where that
14 is?

15 MS. JACKSON: Danville, Virginia.

16 MR. GARR: Danville, Virginia. We may
17 have a few more questions later about that.

18 MS. PATTERSON: I won't spend the time
19 saying there are some smart grid projects in North
20 Carolina too, but I wanted to say one thing here.
21 We all have had some comments about private-sector
22 companies. I think it's important to say that

1 private-sector companies have played a real role
2 in North Carolina in helping us move forward in
3 staying ahead in telecommunications. They have an
4 important role to play in this process and there's
5 an important role for the states and for the
6 federal government. I think if we win it will be
7 because we figure out that balance between all of
8 us and I think that's a challenge to all of us.

9 MR. GARR: That's a great point. It's
10 probably the right point to end on, which is to
11 say that this is a team sport for us to get this
12 right. It certainly requires federal action, it
13 requires great partnerships with industry, it
14 requires very dedicated officials from state and
15 local governments to make all this work. On
16 behalf of my colleagues here at the FCC, it is a
17 great pleasure to have you join us today. It was
18 really fascinating to hear the answers to our
19 questions. Our hope is that this is just the
20 beginning of quite a few more discussions. It's
21 hard to encapsulate the rich experiences that you
22 all have in a couple-minute answer to some of our

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1 questions, so our hope is that we will have some
2 more dialogue going forward. Broadband.gov will
3 have all of these materials out there. Again, I
4 just want to thank you on behalf of my colleagues
5 here at the FCC for joining us. So thank you very
6 much.

7 (Recess)

8 MS. KRAVETZ: Welcome back, everyone. I
9 know the panel looks a little bit funny and that's
10 because two of our participants, Joey Durel from
11 Lafayette, Louisiana, and Gary Gordier, from El
12 Paso, Texas, are with us by conference bridge.
13 Control room, if we can get them up on the
14 conference bridge and make sure that they're here.

15 MR. GORDIER: I can hear you find.

16 MS. KRAVETZ: Is that Joey?

17 MR. GORDIER: Gary.

18 MS. KRAVETZ: Sorry.

19 MR. DUREL: This is Joey. I'm here.

20 MS. KRAVETZ: Excellent. That was my
21 biggest fear of the whole afternoon. I want to
22 remind everyone who's with us that we're going to

1 do our best to work in questions that come from
2 the Web and come from people in the room. We'll
3 make every effort to respond to you after the
4 workshop if we don't get to you now. Carmen
5 Scanlon who I think is in the back, an FCC staff
6 member, has index cards and there are index cards
7 over on the table as you walk in. If you're in
8 the room and you would like to send a question up
9 here, we'll do our best to work them in as I said.
10 Again for the panelists, we'll remind you that we
11 have this timer set for 5 minutes for individual
12 answers. It's a guideline. It worked fine last
13 time I think. I don't think anybody felt like
14 they were too constrained.

15 We had the same questioners, Cathy
16 Seidel, our Chief of Consumer and Government
17 Affairs Bureau, Erik Garr with the FCC's National
18 Broadband Plan, and Sharon Gillett who is the
19 Chief of our Wireline Competition Bureau. We're
20 going to ask each of the panelists in turn to give
21 whatever they want to say about their background
22 and bio and their 5 minutes or so introductory

1 remarks. We'll start with Hardik Bhatt from the
2 City of Chicago.

3 MR. BHATT: Thanks, Lauren. First I
4 want to start with thanking the FCC for this
5 opportunity. I think back in June 2008 as part of
6 the U.S. Conference of Mayors we had passed a
7 resolution requesting the FCC to have a national
8 broadband strategy. It's really good to see that
9 that's coming to fruition.

10 By way of introduction, I'm Hardik
11 Bhatt. I'm the Chief Information Officer for the
12 City of Chicago and also Commissioner for the
13 Department of Innovation and Technology. I've
14 been in these positions for close to 4 years now.
15 I started right in the middle of the muni WiFi era
16 back in 2006. Before that I worked for the city
17 government for 2 more years before becoming the
18 CIO for the Police Department and the Emergency
19 Management Office of the City of Chicago. I'm
20 coming from a consulting background from Oracle
21 Corporation, so I have seen both sides and really
22 appreciate the pros and cons of both sides.

1 What I want to talk about today is bring
2 the message of the Mayor, the Council and the
3 Chicagoans to the FCC and we want to talk about
4 Chicago's broadband strategy and what we've been
5 trying to adopt and work toward affordable and
6 universal technology access.

7 The basic starting points for the policy
8 is it shows on the slide, there are four major
9 basic starting points and these are the guiding
10 principles that we have taken. One is that
11 broadband is the key infrastructure for the 21st
12 century. We've heard that in the President's
13 message as well several times. Apart from
14 broadband, the other stuff that we are really
15 looking to is advanced speeds in cities are very
16 vital for national and regional growth. At the
17 same time, affordability, availability and
18 inclusion are the three areas that we think would
19 drive adoption, and we really applaud the NTIA
20 guidelines which talk about open access and
21 networks that are open and can then link
22 education, energy and health care delivery which

1 are really key to the success of any broadband
2 policy.

3 The next slide talks about the
4 background work that Chicago has done. There is a
5 URL up there,
6 www.cityofchicago.org-digitalexcellence, and all
7 of our work is right there. Back in 2006 along
8 with the municipal WiFi RFP, the Mayor also
9 created a Policy Council of civic leaders in
10 Chicago who looked at, What is the digital divide
11 and how do you define the digital divide? What
12 are the areas? What are the things that we can do
13 to address that divide? Then out came a nice
14 65-page report that talked about the
15 responsibilities of various sectors, the academic
16 sector, nonprofits, the public sector and private
17 sector, and what role they should play to bridge
18 this digital divide. We took the report and
19 created a Digital Excellence Working Group. As I
20 was talking previous to this conversation, we
21 don't see this as just a responsibility of the
22 Mayor or the CIO of the Technology Department.

1 Bridging the digital divide is the responsibility
2 of every city department that has a touch point
3 with the citizens, so that it is the Human
4 Services Department, libraries and schools. Every
5 department has some touch point to the citizens
6 and everybody can play a role in bridging that
7 digital divide.

8 Based on that we created an Action
9 Agenda which is 32 steps in various categories

10 where we can take different steps to bridge the
11 digital divide starting from policy all the way to
12 infrastructure and adoption of it. We also worked
13 on a master plan which will be too much to into
14 the details. The next slide talks about the four
15 key elements that we think should be and are in
16 terms of Chicago's broadband strategy for both
17 access and adoption. The first piece is data.
18 The next slide talks about adoption data. What
19 Chicago has done, and obviously I want to make
20 sure what we have done, lessons learned and also
21 some successes. What we did in summer 2008 was we
22 obtained hyper local data of all 77 Chicago

1 neighborhoods, and what we found out was that
2 there are about 957 census blocks out of the 3,737
3 census blocks in Chicago who have less than 40
4 percent of broadband adoption. This was done
5 through partnership with the State of Illinois who
6 funded the survey which was connected to UIC and
7 the University of Iowa. One of the things that
8 came out of that is a big difference lies in the
9 language that you speak because content is a big
10 driver of adoption, and what we found is that from
11 the respondents, those who responded in English,
12 it was a telephone survey, that 70 percent of them
13 had broadband at home. For the respondents who
14 responded in Spanish, only 30 percent had
15 broadband at home. There lies a big thing where
16 content is also one of the key drivers of
17 adoption.

18 The other area is infrastructure. The
19 next slide talks about the backbone
20 infrastructure. There are two pieces of
21 infrastructure. One is backbone, and the way that
22 we are trying to address this is we are looking at

1 inexpensive ways. We know that there is a big
2 opportunity with NTIA and we are hoping that there
3 will be sustained funding in this, but also have
4 to look for inexpensive ways of improving our
5 backbone infrastructure, so we are working very
6 closely with our streets departments, we are
7 working very closely with our Office of
8 Underground Coordination. As the Technology
9 Department, we have now started knowing every time
10 a street gets dug up either for putting in a
11 traffic signal interconnect, or putting some
12 street light interconnects, or maybe a private
13 utility has dug up the street, we have an

14 opportunity to see if we could leverage that
15 digging up of the street and maybe put conduit or
16 if conduit is there to put fiber there. So we are
17 really working toward this coordination and that's
18 possible because Chicago has a very coordinated
19 government.

20 The second piece of infrastructure in
21 the next slide is in-building infrastructure.
22 That is, the big issue is that you can bring fiber

1 to the curb, but then how are you going to bring
2 that inside the building? So the Public Buildings
3 Commission in Chicago is the organization that
4 builds the public buildings obviously as the name
5 says, and PBC, as the short form says, we have
6 worked with them to define standards of when you
7 build a building, these are the technology
8 standards that have to be part of building a
9 building including fiber-ready buildings. Then we
10 are making these standards available to our
11 private developers, and we are also making these
12 standards available to the Department of Housing
13 which is working on the NSP-II, the Neighborhood
14 Stabilization Program, so that when they refurbish
15 affordable housing they will them fiber ready.
16 This is to make the houses and homes prepared with
17 in-building infrastructure.

18 The third key piece is adoption. As the
19 next slide talks about, driving broadband, this is
20 what came out of our Digital Divide Council, and
21 it talks about five key drivers. Access is just
22 one of them. Affordable hardware and software,

1 education and changing mindsets are the four other
2 major drivers of adoption that we are focusing on.
3 Again, partnering with the State of Illinois we
4 have projects going on in four demonstration
5 communities where we are putting resources from
6 foundations, state government and the private
7 sector to look at how putting in these technology
8 resources can change the fabric of a community and
9 create job opportunities there.

10 Last but the most important part is
11 applications. We have seen that again as part of
12 the NTIA guidelines focusing on various aspects,
13 where broadband is just the means, but what's the
14 end? Why are you deploying broadband? That is
15 for community economic development, education,
16 learning, energy and the environment. So all
17 these different aspects that we keeping in mind
18 when are deploying broadband.

19 The last piece I wanted to mention is
20 the opportunities, and that is, information
21 through surveys is good, but I think getting
22 real-time on adoption of services would enable the

1 local governments to target where we should put
2 investment. Coordination, we had a lot in the
3 states' panel before. Coordination at the local
4 and state levels could be made better, but I think
5 coordination at the federal level can also be made
6 much better if we can have Homeland Security and
7 Health and all the other various departments
8 working together to work on this common goal and
9 have some threads connected there really helped;
10 sustained funding would definitely help; and
11 applied research, finding innovative techniques of
12 deploying fiber to reduce the cost of deploying
13 that and then applying them and sharing those with
14 other municipalities would be great. Those were
15 the points that I wanted to make. Thanks for the
16 time, and I will take questions at the appropriate
17 time.

18 MS. KRAVETZ: Commissioner Paul Cosgrave
19 from New York City?

20 COMMISSIONER COSGRAVE: Thank you. Good
21 afternoon everybody. I am the Commissioner for
22 the Department of Information Technology and

1 Telecommunications for the City of New York,
2 better known as DoITT. We like to do it.

3 My background has been in information
4 technology and telecom for my whole career of 35
5 years, the first 25 of which were in the private
6 sector and then the last 10 years I've been a
7 public servant first here in the federal
8 government with both the Internal Revenue Service
9 and the Department of Transportation, and for the
10 last 4 years here with the Department of IT&T in
11 the City of New York.

12 On behalf of Mayor Bloomberg and the
13 City of New York I'd like first of all to really
14 commend the FCC for conducting these workshops and
15 for all of the FCC's ongoing initiatives to
16 develop a robust record as the basis for a
17 National Broadband Plan. I can't emphasize enough
18 how important this initiative is to our national
19 competitiveness. Take New York City as an
20 example. For us to remain the financial capital
21 of the world, broadband needs to be viewed as a
22 critical infrastructure factor in our success, and

1 I think you only have to look back to 9/11 and the
2 4 days that the financial markets weren't
3 operating and the lack of a telecom infrastructure
4 had to show how devastating it can be in terms of
5 economic impact. Clearly we're obviously very
6 committed in New York and we've been an aggressive
7 advocate of both free market and government
8 initiatives to both deploy wireless networks and
9 also for us most importantly to encourage the
10 adoption of broadband service throughout our
11 population. We've very much focused on both
12 deployment and adoption.

13 Urban areas which altogether account for
14 about 60 percent of U.S. population suffer quite
15 acutely by what's been called many things, but
16 it's more recently being viewed as the demand side
17 obstacle of broadband adoption. Ultimately,
18 however, this obstacle ought not to be viewed as
19 solely an urban problem because as broadband
20 becomes more ubiquitous throughout the whole
21 country, our primary national challenge will shift
22 to adoption for all of us particularly by

1 relatively lower-income and other at-risk
2 Americans. In this respect I believe that urban
3 areas are harbingers of the challenges the nation
4 will face if broadband deployment and adoption are
5 not simultaneously addressed.

6 In 2006, the City of New York embarked
7 on an in- depth broadband needs assessment of
8 deployment and adoption across our population
9 segments. The study revealed that broadband is
10 available to our residents with virtually every
11 household passed by at least one provider, and
12 with 89 percent of the households passed by at
13 least two providers, and recall that was done over
14 2 years ago. The study also showed a fairly
15 startling lag in adoption by low-income residents.
16 Specifically, while the city's overall broadband
17 adoption rate at that point stood at 52 percent
18 which was comparable to other urban markets 3
19 years ago, the gap in broadband adoption between
20 low-income versus moderate- to high-income
21 households was approximately 28 percent.

22 Significantly, the study also projected

1 that although broadband adoption would grow among
2 all income segments over time, and according to
3 the recent Pew analysis as well as confirmation
4 that we've recently done, adoption hasn't indeed
5 grown significantly. It's clear though that
6 without some strong intervention, this disparity
7 will continue at that sort of rate in the 20
8 percent gap. Indeed, in absence of programs
9 promoting broadband adoption among low-income
10 households, our study predicted that by 2012 the
11 adoption gap in New York would still exceed 20
12 percent. As I mentioned, we now recognize that
13 broadband is essential for our country to
14 effectively in the global economy, but on a more
15 human grassroots level our goal must be to enable
16 vulnerable populations to become more active
17 technology users where citizens are empowered to
18 utilize broadband technology to enhance their
19 educational, employment and economic
20 opportunities, to access Health and Human
21 Services, to participate in government and
22 politics, and increasingly to communicate and

1 enhance their very status in society at large.

2 To advance the goal to increase
3 broadband adoption, vulnerable populations must
4 not only have access to affordable broadband
5 services, but also to computer hardware and
6 software, ongoing technical training and support.
7 Optimally, they should be provided with digital
8 literacy skills in a manner that is tailored to
9 and meets their specific needs and requirements.
10 Perhaps most importantly, the value of broadband
11 adoption must be demonstrated through for example
12 enhanced educational opportunities, workforce
13 readiness training and improved access to health
14 care and other critical services.

15 The Bloomberg Administration has
16 invested considerable resources to streamline and
17 provide for the online delivery of essential New
18 York City information and services. Indeed, among
19 my main roles as the city's Chief Information
20 Officer is to help leverage technology to make
21 this information and these services more
22 accessible, transparent, as well as being

1 accountable to the populations we serve. So it's
2 only natural for us now that we have made great
3 progress with these technology initiatives often
4 geared specifically to serving our lower- income
5 residents to take a special interest in ensuring
6 that they can be accessed by the very people they
7 are meant to serve.

8 Go give you a little better sense of
9 what I'm talking about, let me give you a few
10 examples of the kinds of projects we've rolled out
11 and why we need broadband and greater needs to
12 support them. The New York City Department of
13 Mental Health's Primary Care Initiative Project or
14 PCIP uses prevention oriented electronic health
15 records to improve health in disadvantaged
16 communities. By next year, approximately 2,500
17 primary care providers will be using this
18 prevention oriented electronic health record
19 system. Among the PCIP's other objectives for
20 2010 is providing a million patients with
21 self-management tools including patient portals
22 and providing participating practices with

1 clinical quality scorecards for evidence- based
2 best practices. Increased broadband adoption is
3 needed to extend the reach of the system to serve
4 additional undeserved patients who might not
5 otherwise have the ability to be served by PCIP,
6 as well as to support the doctors better who in
7 many cases today are relying on nothing other than
8 DSL service.

9 The New York City Department of
10 Education's Achievement Reporting and Innovation
11 System known as ARIS provides educators with a
12 consolidated view of student learning data and
13 tools to collaborate and share knowledge about how
14 to improve student learning. Significantly, it
15 will serve as the basis for online linkages
16 between school and home learning environments. In
17 particular, ARIS' parent link will enable online
18 monitoring by parents of students' academic
19 progress. In addition, online learning tools will
20 be accessible by students from home to enable
21 constant learning.

22 Access NYC is a Web-based application on

1 the city's Website at NYC.gov which promotes
2 self-sufficiency among city residents by providing
3 a single point of entry to over 35 city, state and
4 federal human services benefits programs. By
5 entering household information, residents can
6 receive a list of programs for which they are
7 potentially eligible, print partially completed
8 application forms or directly apply for specific
9 programs, free school lunches or food stamps are
10 two examples, search for office locations, and
11 create an account to access their information.
12 Business Express is also application at NYC.gov
13 which streamlines the process of starting a
14 business in New York. It provides necessary
15 information and walks users through steps
16 businesses must take, for example, to meet the
17 requirements of obtaining licenses and permits for
18 over 20-plus city state and federal agencies, all
19 information now available in a single place. To
20 manage record call volumes at the City's 311
21 Customer Service Center, we have continually been
22 aggressive in employing new technologies to

1 operate 311 more efficiently. To this end, the
2 city recently launched what we call the 311 Online
3 Portal which now leverages over four-thousand
4 services that the city offers that can all be
5 directly accessed in one place online.

6 In conclusion, without strong broadband
7 capabilities, these services are not going to be
8 accessible to the people who most need them, so in
9 this way we're totally supportive of the effort to
10 have truly robust broadband services. We're
11 confident that the FCC's National Broadband Plan
12 will recognize these opportunities and provide the
13 necessary support to expand broadband to all
14 Americans. Thank you.

15 MS. KRAVETZ: Thank you very much.
16 Let's go on to Joey Durel, from Lafayette,
17 Louisiana. Please tell me you're still on the
18 phone.

19 MR. DUREL: I'm still on the phone.

20 MS. KRAVETZ: Excellent.

21 MR. DUREL: I'll speak from the point of
22 why I think I'm even here being the success that

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1 we have in Lafayette, Louisiana, that plays a good
2 example for the rest of the country.

3 I am a former small business person who
4 spent 30 years or so my adult life in the private
5 sector, self- employed. I became Mayor of this
6 town in January 2004. We also have our own
7 utility system. It's probably one of the top 50
8 in size publicly owned utility systems in the
9 country, so we had a good utility system that had
10 been in existence in Lafayette since 1897 that had
11 a very good reputation. The fiber optic ring that
12 was put around Lafayette was there for
13 communications to replace aging communications
14 among the various substations that we have in
15 Lafayette, the 14 substations. I get into office
16 and we start talking about the fiber optic ring
17 and what we could do it, and of course the
18 conversation gets around to bringing fiber
19 directly to the homes and businesses in Lafayette.
20 So in 2004 as soon as I got in we authorized a
21 feasibility study, of course got sued and had to
22 go to the legislature to prevent it from being

1 completely outlawed in Louisiana like it has been
2 in several states, and ultimately it got to the
3 vote of the people and this very conservative
4 community voted 62 to 38 percent in favor of our
5 utility system getting into the broadband business
6 including telephone and television, so you can
7 imagine who we were up against. So we ended up
8 all the way in the Supreme Court in Louisiana and
9 got a unanimous decision to let us go forward.

10 Today we are now delivering telephone,
11 television and Internet. The slowest speeds we
12 have are 30 megabits per second in both directions
13 for about \$28 a month, and peer-to-peer we're
14 giving 200 megabits per second in both directions
15 for free. Often people say why did we do what we
16 did, and of course I've heard it already today,
17 and that is economic development is the number one
18 thing. Like so many states, we do a good job of
19 exporting our young people after they're educated,
20 so we had to find a way, and I felt that it was
21 time for politicians to do something out of the
22 box and find a way to keep the economy growing in

1 order to keep people here, give them at least the
2 opportunity to stay here. So from an economic
3 development standpoint it was something that we
4 had available to us, we had a reputable utility
5 system that could do the job I felt, and so we did
6 it and we're moving forward.

7 The other thing obviously is education
8 and the digital divide. We believe that we're
9 doing something pretty unique in that a very poor
10 family in our community that gets our television
11 and our telephone 40 percent cheaper than what
12 they're getting for right now, because we're using
13 IPTV, when they turn on their television in the
14 morning or at night they can hit an Internet
15 portal at Google and they can type in Christopher
16 Columbus and do some research so that a child from
17 a very poor family has access to the computer
18 unlike they've ever had before. We're saving our
19 community money, and like I said, we have a good
20 story to tell and I'd be glad to share that with
21 you as the afternoon goes on.

22 MS. KRAVETZ: I'm moving to Lafayette.

1 MR. DUREL: I was hoping so.

2 MS. KRAVETZ: Could we move on to Gary
3 Gordier from El Paso?

4 MR. GORDIER: I'm Gary Gordier from El
5 Paso, Texas, the twenty-first largest city in the
6 nation, and probably one of the poorest by some
7 standards.

8 By way of background, I have about 39
9 years of experience managing technology in both
10 the private and public sectors, predominantly in
11 the public sector. I've been in that arena for
12 about 33 years. I am a graduate of Northwood
13 University. I've got three different
14 certifications from the Institute for the
15 Certification of Computing Professionals, I've
16 been an adjunct faculty member and a bunch of
17 other stuff that you could probably read about
18 elsewhere.

19 Let's get to the core of what our topic
20 for today is. One of the things that I think I
21 bring to the table here is some unique
22 experiences. I did my first fiber optic

1 deployment when I was in another community in Fort
2 Collins, Colorado, and we deployed a ring around
3 the city as well as crisscrossed all of our major
4 streets, so we had an intelligent traffic
5 management system and it was incredibly
6 successful, and it also blended and merged into a
7 community-wide fiber infrastructure for K-12 as
8 well as our college environment, some other
9 nonprofits, the city and the county and the
10 jurisdictions that were nonprofit, and it was very
11 successful in doing that.

12 A little less than 3 years ago I took
13 this position in El Paso, Texas, and when I came
14 here I was here for about 2 days before I realized
15 that my single biggest problem in a city this size
16 was connectivity. We were operating entire
17 libraries on a single T-1 and that was about the
18 best we could do or the best we could afford to do
19 including where to get T-1's even. I've been
20 amazed at the lack of broadband that was in this
21 community, though we've had major carriers here,
22 and El Paso is one of the largest fiber hubs in

1 the nation. For whatever reasons, back in the
2 heyday when fiber was built and the streets were
3 being torn up and the major carriers were coming
4 through town, with all this fiber, not a single
5 strand was ever made available for public-sector
6 consumption. So we embarked on a program to begin
7 a process of building out a fiber backbone in the
8 city here and we're still working on that. We're
9 starting to connect some of our major anchor
10 institutions with that, and we're continuing to
11 deploy that.

12 Another significant thing that we've
13 done in El Paso that becomes I think unique to
14 this discussion of national broadband and the
15 digital divide is about 2 years ago we embarked on
16 a community collaborate effort and it was probably
17 one of the best collaborative efforts I've ever
18 had in my career. Egos were checked in at the
19 door. Everybody wanted to get together to do what
20 was right for the community, and with the help of
21 a number of private- sector entities, we set up
22 what I call our sandbox for WiFi. It was done in

1 a part of town that has Fortune 100 companies in
2 it, libraries, hotels, museums, as well as the
3 second-poorest Zip code in the nation, what's
4 called the Segundo Barrio where the median family
5 income is about \$9,800. We used this sandbox to
6 look at issues of digital inclusion and what were
7 the problems we would face. The technology was a
8 piece of it. We wanted to see what we would learn
9 from actually trying to deploy an 802.11 mesh
10 network, and we can talk about that if you want
11 to. There were tremendous things that we learned
12 from it. But more importantly we learned about
13 the issues that we were going to be facing with
14 the poorer communities. How do we get adoption of
15 computers? Frankly, one of the first things we
16 can have a realization on was that we could have
17 all of the broadband in the world and it would be
18 worthless because the people in that part of the
19 community were unable to afford access unless it
20 were made available free, and then they still
21 needed a computer. So that led to a number of
22 initiatives that we undertook collaboratively in

1 our community for our sandbox project. We started
2 a computer recycling program in conjunction with
3 the community college, we've started a program of
4 training indigent families on how to use the
5 computer just to access the Internet and some
6 basics of it, and there are lots of stories behind
7 that I could tell you that are just really
8 inspiring.

9 If they came and took the class and
10 completed it, they would go home with a computer
11 that would be loaned almost in perpetuity so they
12 could access the Internet in our sandbox area. We
13 also started a program of financial literacy in
14 conjunction with some of the financial
15 institutions in town. They stepped up to the
16 plate and put together a revolving loan program
17 that was a dollar match program. Anybody who
18 wanted to save after the financial literacy class
19 toward a computer could save it in an account and
20 the institution would match dollar for dollar so
21 that they could acquire a PC for their own
22 purposes, whether they needed to go to college or

1 whatever it would be. It has been a huge success,
2 and what we've learned there, and we can talk
3 about some of our learning experiences as we go
4 forward today, gives me a unique way of looking at
5 the whole issue of broadband and what kinds of
6 policies we need to keep in mind as well as some
7 of the challenges we have.

8 Another thing we found that was very
9 unique to El Paso, probably unlike most
10 communities in the country, is that we have this
11 little community next door to us of about 2
12 million population and it's in another country and
13 called Juarez, Mexico. They don't have to follow
14 the same rules of the FCC. We've had a very
15 positive experience with them. They were stepping
16 all over our 802 as well as our 800 megahertz
17 radio spectrum, and collectively we worked
18 together in a cooperative fashion and adjusted so
19 that their levels were down to our same levels and
20 we weren't having the conflict, but that's been a
21 unique challenge we've also faced from the
22 technical side. With that, let's continue on with

1 the panel.

2 MS. KRAVETZ: Thank you very much.

3 Let's move on to Lori Sherwood from Howard County,
4 Maryland.

5 MS. SHERWOOD: Good afternoon. Thank
6 you for inviting me here today to talk with you
7 about such a fascinating and interesting subject
8 at such a pivotal moment in our history.

9 My experience in Howard County, I'm the
10 Cable Administrator, but most recently I've spent
11 more time working as a broadband administrator.
12 What I have done and the reason I think I'm here
13 today is we have recently coordinated 10 local
14 government jurisdictions in Maryland for one
15 coordinated broadband plan for deployment and put
16 that plan into a BTOP application for stimulus
17 grant money. What we've learned from that in
18 coalition building and building a plan from the
19 ground up is what I'd like to talk about and offer
20 some strategies for a coordinated vision for
21 developing a national broadband policy.

22 In Maryland we have a history of

1 investment, sustainability and experience on a
2 local government level running, managing and
3 deploying networks. What we've learned that there
4 are five C's, the five most important best
5 practices that we can share with you today for
6 building a plan from the ground up. The first is
7 the community need, and being the local government
8 on the front lines, we deal with the community
9 needs every day, but in addition from hearing from
10 the public, we also coordinate with our school
11 systems, our fellow agencies, our health care
12 systems, and with other local government
13 jurisdictions and with the state and federal. As
14 a particular note for what helped our consortium
15 build our plan is that we also had two regional
16 infrastructure committees already established in
17 Maryland and we utilized their experience and data
18 that they had put together. One is the Baltimore
19 Region UASI Group, the Urban Area Security
20 Initiative, and two of the National Capital Region
21 NCR Net. Combined, those two focus mainly on
22 public safety and have applied for and received

1 grants for fiber deployment for various purposes
2 in increasing homeland security needs and public
3 safety interoperability, and so we incorporated
4 those needs into our Community Needs Assessment.

5 I'm going to beat the drum of
6 cooperation and coordination as well and say that
7 you cannot do anything without those two. It is
8 absolutely critical. When I say cooperation I'm
9 talking about such little details like for putting
10 together a plan and a timeline for fiber
11 deployment you need to utilize and take stock of
12 existing agreements, MOUs, and other permits that
13 have already been pulled to make sure that your
14 project can be as shovel ready in a timely fashion
15 and that it is executable, as well as coordinating
16 with the state agencies and the state highways,
17 and in the previous panel we heard some discussion
18 about the challenges of coordinating with state
19 and federal agencies.

20 Another one is consolidation. One of
21 the purposes that we put together our plan was to
22 avoid creator redundancies so that we can rely on

1 each other data centers and enhance our fiber, but
2 we also wanted to eliminate fiber silos so that
3 every county in the state and every state in the
4 country builds its own fiber ring and they do not
5 interconnect with one another, and there is no
6 benefit for that, and so we wanted to make sure
7 that we coordinated to the extent that we could
8 interconnection at key points to allow greater use
9 of applications and coordination in partnerships
10 with public and private partners.

11 Finally, I wanted to give a note on cost
12 savings and to say some, Way why are local
13 governments involved in managing and deploying
14 fiber networks? To give you a sense of what we
15 estimated would be some of the cost savings if we
16 implement our plan throughout the 10 counties in
17 Maryland, essentially we estimated that we could
18 save up to \$40 million a year in costs that we
19 spend out based on connectivity with public
20 schools, boards of ed, fire and police stations,
21 et cetera. That does not even include the
22 multiplier effect of cost savings passed on to

1 individuals, the benefit of private-sector
2 partners and all of that.

3 Why is this important? We have an
4 opportunity to do this right and 25 years from now
5 we don't want to say that we should have done a
6 better job of coordinating and talking to each
7 other. For development of a national policy, the
8 FCC should draw on its decade of government
9 experiences including local governance. Our
10 coordinated counties have over two-hundred years
11 of personnel experience with the CIOs in those
12 regions and that is experience that should not be
13 lost in developing a national broadband policy.
14 Moreover, private carriers alone cannot do what
15 needs to be done. With that, the FCC needs also
16 to utilize available resources, groups that know
17 what the community needs are in a certain area to
18 make sure that a broadband policy speaks to
19 everyone. For example, there's a coalition, the
20 Schools, Health and Libraries Broadband Coalition
21 that is doing good work that can tell you what the
22 schools need and what they need on the front lines

1 in order to make sure that the policy moving
2 forward on a national level speaks to everyone.

3 We've heard it said a few times today
4 that the FCC must coordinate with homeland
5 security public safety, and I would echo that to
6 say that it is critical that we make sure that our
7 public safety needs are met with the broadband
8 policy. How do we accomplish this? For starters
9 I think we could reestablish a Local Government
10 Task Force Committee similar to what we had in the
11 recent past with a local/state government advisory
12 council. Government on all levels operates of the
13 people, by the people and for the people, and we
14 know what our specific needs are in our
15 communities and what's right for one may not be
16 right for all, but combined I think that we can
17 develop a truly national broadband policy that is
18 coordinated.

19 MS. KRAVETZ: Thank you. Chris Vein
20 from the City of San Francisco.

21 MR. VEIN: Thank you. I am the CIO for
22 the City and County of San Francisco. It's a

1 pleasure to be here, and thank you very much to
2 the FCC. You've been great hosts so far. Thanks.

3 It was back in the first year of Mayor
4 Newsome's term when I was seated in the audience
5 and he made his now famous call that no San
6 Franciscan should be without WiFi, should have a
7 computer and it needed to be free. The next month
8 I was given that enviable or unenviable task of
9 trying to make that work, and I have been doing
10 broadband digital inclusion and economic
11 development work ever since, and so my comments
12 today are based on that.

13 Before I get into some specific examples
14 of applicability of San Francisco, I think a
15 couple comments are worth making. The first is
16 that cities and counties are on the front lines.
17 As such we deal with the issues daily and we don't
18 have the luxury of being able to work with or at
19 least try to work with federal agencies, state
20 agencies or even some of our own agencies. We
21 need to make it happen, and that's actually what
22 we've been doing in San Francisco. We've been

1 making it happen and pushing the envelope and
2 sometimes winning, sometimes not to much, but
3 working to solve some problems.

4 What we've come up with is that there
5 are four actual categories of initiatives that
6 must be in place in order to solve the digital
7 divide problem. The first is access. We must
8 have broadband access. It's a foundational issue.
9 It can be fiber and it can be wireless or some
10 combination thereof, but it is first and foremost
11 the fundamental issue that we must resolve. In
12 San Francisco we have been experimenting recently
13 with taking dark city fiber and running it to our
14 federal housing authority units and providing
15 services to the most disadvantaged citizens of the
16 City and County of San Francisco and giving them
17 the fastest speed in the City and County of San
18 Francisco, up to speeds of 110, up and down.

19 That is providing an incredible
20 foundation for the second piece of what we are
21 trying to do which is to provide equipment to
22 those in need. We have tried many different

1 things. We have tried working with credit unions
2 and manufacturers and other organizations to sell
3 computers at discount or low prices. We are now
4 discounting the refurbishment of computers of
5 government agencies and making those available to
6 our citizens. We're also taking those same
7 refurbished computers and making them available
8 for free to learning labs in our housing authority
9 units as an example, and we are over four-thousand
10 units now that we are providing coverage of
11 low-income or moderate-income.

12 From an application or content
13 standpoint which is the third piece of our puzzle,
14 there must be culturally competent and language
15 sensitive applications and content available to
16 the citizens and it obviously has been relevant.
17 We've got a number of case studies where we're
18 playing, if you will, with trying to provide
19 interesting and useful applications. The first
20 that I'd like to talk about is we are providing
21 distance telemedicine in some of our clinics and
22 we are using broadband applications to provide

1 online real-time interpretation of people of color
2 within communities dealing with HIV and AIDS. It
3 is truly a remarkable opportunity for a complete
4 care-giving entity to work with the medical
5 establishment either at the general hospital, at a
6 research center or at a local clinic and providing
7 care that is understood and is meaningful. Given
8 the time, I won't talk about the other two. We'll
9 probably talk about those as we go forward.

10 The last is training and support, and it
11 is absolutely necessary to ensure that we are
12 building community capacity. As we've said
13 before, if they're not sustainable, it's not going
14 to work. So we have to worry about those folks
15 who are not even knowledgeable about how to use a
16 mouse to those folks who want to use the tools
17 that we've providing to create digital media to
18 tell their stories or to communicate or to provide
19 policy input to others. So that's the fourth
20 piece that must be there, and we've focused a
21 great deal of our time on working with the
22 communities so that they can support these systems

1 that we're helping to build.

2 Let me stop by saying that it's not done
3 alone. Every one of these programs and the
4 hundred other programs that I'm not talking about
5 are partnerships. They require work with our
6 nonprofits, an incredible rich amount of nonprofit
7 wealth out there, and also with the other public-
8 sector and private-sector partners that we have.
9 The final thing is, and Paul and I were talking
10 about this earlier, what we've found to work is
11 just trying something. We do a lot of pilots in
12 San Francisco and we never know if they work, and
13 we are lucky that Mayor Newsome is okay with that.
14 He really wants us to try and see what things work
15 and what things don't and to work from them
16 because his impression is, as is mine as well,
17 that if you don't start being creative, you've
18 never going to solve the problem because someone
19 is always going to tell you no. Thanks.

20 MR. GARR: First of all, thank you all
21 for joining us. I should disclose that I live in
22 Chicago so I know that Hardi's been up to pretty

1 personally, although I'm here in D.C. currently
2 doing this assignment.

3 Because of that I want to spend a couple
4 of minutes on something that everyone has
5 mentioned but from very different perspectives,
6 and that's the importance of speed. I think
7 there's an obvious question about what does it
8 mean to our large urban business centers and what
9 goodness do we think comes from that, but I'm also
10 particularly interested in what we've heard from
11 some of the less-densely populated areas who are
12 delivering some pretty fantastic speeds to lots of
13 different residents. Maybe we can go through the
14 group here and talk about what benefits do you see
15 when it comes to really high-speed service in your
16 particular jurisdictions, and maybe we'll start
17 with Hardi again.

18 MR. BHATT: We work very closely with a
19 lot of end users if we might want to call them
20 over the last few I would say couple of years.
21 There are a lot of examples. Look at the health
22 care industry. We've worked with a private-sector

1 company who wants to launch an appliance working
2 with a local health care provider, one of the big
3 health care providers in the Chicago area, for
4 home health care in the South Side of Chicago.
5 They want to address the overcrowded ER area where
6 they want to make sure that I living in my home
7 own my own health care and try to solve my own
8 problems and then also reach out to my physician
9 sitting from home, and that's not possible with
10 the speeds that are available right now. It has
11 to have faster speeds.

12 Within our education sector I saw an
13 application where the students from the Chicago
14 Public Schools are trying to interact with a
15 school in Morocco and with the speeds that were
16 there, fortunately, all of our high schools are
17 connected with fiber and the high school kids have
18 great experiences of connecting with these global
19 classrooms, but as for the elementary schools,
20 that is not the case for all the elementary
21 schools. So those are the areas, sending MRIs,
22 sending the X-rays or sending the big skyscraper

1 architecture diagrams to experts on the other side
2 of the globe. Those are the applications that
3 would absolutely be required. I'm not even going
4 into the government applications, talking about
5 public safety, Chicago is one of the leading
6 cities in the nation in terms of deploying
7 surveillance cameras and speeds are of utmost
8 importance when you talk about getting those
9 signals back to our state-of-the-art 911 center.

10 MR. GARR: Paul?

11 COMMISSIONER COSGRAVE: I'm going to
12 talk on both sides of this issue. My main thrust
13 here was about adoption and addressing the digital
14 inclusion challenges we have. I think for that
15 community just to get started, DSL speeds probably
16 will be okay because that's what we want to do, we
17 want to get them started. In fact, we've
18 discussed with a carrier giving a discount for
19 people to use DSL, and they're interested actually
20 as a way of keeping DSL alive. This is a carrier
21 that's already rolled out FiOS or is in the
22 process of rolling out FiOS to the city so they're

1 seeing a way to actually keep DSL from
2 disappearing and keeping it alive as a service so
3 I wouldn't totally throw it out.

4 On the other hand, some of the examples
5 that Hardi just gave you, and I'll give you
6 another example, we're thinking of trying to
7 create an economic developing opportunity around
8 creating a digital media focus in New York City to
9 try to lure some of that business back from
10 California. We're going to need absolutely 100
11 megabit type speeds if we're going to be able to
12 do that, and it happens to be in a commercial area
13 of the city that's not served today. When I gave
14 the statistics, I gave them just for residential
15 services about being passed by at least one and in
16 most cases two. We do have commercial areas that
17 are not passed because we don't have the ability
18 to force the cable companies to go into the
19 commercial areas like you do in residential.
20 We're emphasizing that now with the carriers that
21 we want to get them in to all the commercial areas
22 as well so that it definitely varies by the need.

1 MR. GARR: I'd like to ask our folks on
2 the phone to answer this as well. I think Joey
3 Durel, maybe you could go next since you can't
4 look at us. I'm looking at our chair.

5 MR. DUREL: A couple of points as we go
6 forward, I was thinking as it relates to
7 developing a broadband policy that is very
8 important is, number one, that we raise the bar.
9 I believe the definition of broadband right now is
10 pretty weak and it just seems to me is this going
11 to be a pretty complicated issue and that we start
12 talking in terms of a lot more speed than what
13 I've heard mentioned as the broadband policy. The
14 other thing that I think is a hugely important
15 issue is that states have got to start undoing
16 some of the laws that they've passed and removing
17 some of the impediments to cities getting involved
18 in it. Without that kind of competition just like
19 in the 1890s, I can tell you that we had a great
20 story to tell in Lafayette because in the 1890s
21 the private sector looked at our little town and
22 said it just doesn't justify bringing that kind of

1 infrastructure to a town of whatever it was, 3,000
2 or 3,500 people. Today we are a town of 125,000
3 people and they've pretty much told us the same
4 thing. We begged them to do it. I'm a
5 private-sector guy. I went to BellSouth and I
6 went to Cox and I said, please, you do it. That
7 way we can drop this and we don't have to worry
8 about it. Of course they said the same thing, it
9 doesn't make any sense for us to bring that kind
10 of infrastructure to a town that size, and of
11 course they're not bringing it to any towns of any
12 size. So I think it's an important thing that
13 cities are allowed or at least are not prevented
14 from doing it if their citizens want to do it.
15 Right now we are bringing 100 megabits per second
16 to every school in our parish and have just signed
17 something recently where we're about to bring that
18 up to a gigabit in every school in our parish. So
19 from an education standpoint it's been a
20 tremendous help to us. We're working in fact with
21 the schools in San Francisco to do some distance
22 learning between two of our schools. We're

1 working with a city in France to do the same
2 thing. From an economic development standpoint,
3 as I said earlier, we haven't got any monster
4 business to locate here yet, but we have gotten a
5 lot of small businesses that have decided to
6 locate in the City of Lafayette instead of outside
7 of the City of Lafayette. We just landed a Disney
8 Movie, "Secretariat," that's going to be filmed
9 mostly in Lafayette, and one of the reasons they
10 gave for doing it is because they will have a
11 fiber optic connection of 100 megabits per second
12 which is very affordable that they can connect to
13 one of our technology centers here in Lafayette to
14 do some of the postproduction work.

15 As I said, the things that we're going
16 to be able to do with medicine, right now as I
17 said, we're doing 100 megabits per second
18 peer-to-peer, we can turn a switch and make that
19 200 megabits per second and we know that it's just
20 a matter of time before it's 1,000, and much more
21 than that. So by the time a broadband policy and
22 things are really being done around the country,

1 talking in terms of kilobytes or anything like
2 that is already antiquated, so I would like to see
3 the FCC start talking about rising the bar as we
4 move forward.

5 MR. GARR: Joey, I'd like to point out
6 to everyone that we have a public notice on the
7 definition of broadband that is outstanding, so I
8 would encourage you all to look at that public
9 notice and respond. We won't comment on what we
10 think about that yet, but the question has been
11 asked formally by the FCC and I think it's the
12 right question to ask, Joey, so thanks for
13 underlining that. But I'd like to ask another
14 question related to speed particularly in your
15 community. What's the uptake been like? The
16 speed per dollar that you have there is pretty
17 remarkable. What's the uptake been like? Do you
18 have any anecdotes of things that are really
19 surprising that people are doing with that speed
20 whether that's new business opportunities for
21 small businesses or telemedicine or whatever?

22 MR. DUREL: Next week we've got a

1 waiting list of businesses. We've always had a
2 wholesale network. Before I got into office and
3 they put the fiber optic ring around Lafayette, of
4 course they were not going to get into the retail
5 side of things so they allowed some wholesalers to
6 develop it and deliver the broadband to the
7 hospitals and some of the larger businesses in
8 town and we're just now starting to roll it out to
9 businesses ourselves. I'm trying to think of one
10 little story that I'll share with you and it's
11 probably not the most important thing anybody
12 could hear, but we heard a story of one of our
13 first test customers, the son getting on the
14 Internet and playing one of these games that you
15 play with people all around the world, one of the
16 battle games or war games and he was beating
17 everybody. Finally he got an email from somebody
18 across the ocean that asked, "What kind of speed
19 are you using over there?"

20 We're so new with it. We just started
21 really rolling it out in February. The word
22 continues to get out and we're just of the belief

1 that the speeds that we're going to offer,
2 ultimately I really think because I think it's
3 going to go slow around the country, I think
4 there's the potential that 10 years from now that
5 85 to 90 customer of the country will still not
6 have what we have here in Lafayette because of the
7 laws and because of who you're battling and the
8 accusations you'll get like we got about competing
9 with the private sector, and the people you're
10 competing with in my opinion are not the true
11 private sector, they don't want competition, and
12 the only way you're going to get this that it
13 happens like it should happen in my opinion is
14 through competition and the only competition you
15 really have an opportunity to get out there is the
16 municipalities.

17 MR. GARR: We'll look forward to
18 Lafayette residents on the top of all the gamer
19 charts.

20 MR. DUREL: Hopefully more than that.

21 MR. GARR: I'm sure. Gary, maybe you
22 can talk to us a little bit about this question of

1 what does speed mean in your community.

2 MR. GORDIER: There are two ends of it.
3 If you take someone who is in the Segundo Barrio
4 who is just learning how to navigate a Webpage,
5 dialup would be golden for them. Obviously we're
6 giving them more than that. We've got a medical
7 college here and they need very, very high speeds,
8 as well as a public safety standpoint, with the
9 city trying to run libraries, eventually I think
10 we're going to see most of them without books,
11 they're going to be all electronic. So that the
12 demand for speed is very, very real and it is
13 growing, speeds that I think will be challenging
14 for us to keep up with particularly at the slow
15 pace that I'm seeing of speeds being made
16 available even on the commercial side in El Paso.
17 Coupled with speed, you can't just talk about
18 speed by itself, you have to look at capacity.
19 It's one thing to be fast, it's another thing to
20 have lots of capacity at high speeds, and that's
21 where I think we're going to see some bottlenecks
22 occur unless there are some changes.

1 The other part of that continuum is the
2 kids of speeds that we're talking about is yes on
3 fiber if you're wired, but the world is becoming
4 an unwired world and they're wanting more and more
5 speed in that wireless world whether it's 802.11
6 or whether it's cellular and we need to make sure
7 that whatever we do going forward really brings an
8 integration of these different technologies at
9 correspondingly if not identical certainly but
10 some correspondingly relevant capacity and speed
11 profiles.

12 MR. GARR: Lori?

13 MS. SHERWOOD: I would say that high
14 speed, high capacity is access and echo what
15 Hardik said in Chicago that what the schools can
16 do with higher speeds is to expand their potential
17 to limits unknown. Part of what we would like to
18 do in Maryland is to partner with Maryland Public
19 Television to provide free content and there is
20 such an extraordinary amount of free educational
21 content available through Maryland Public
22 Television. It has to come in on a high-speed,

1 high-capacity bandwidth and some of our schools
2 have that capacity, and then as you get down
3 toward the elementary schools it's severely
4 lacking. Our community colleges are also tapped
5 out. We've talked about being able to stream
6 their college channel 24 hours online and to allow
7 for students distance learning and other such
8 tactics, and they just simply do not have the
9 bandwidth dedicated to allow for that. They have
10 it in the after hours, but they certainly don't
11 have it in the daytime when the students are
12 online. And generally speaking, in order to keep
13 up with the industrialized nations around the
14 world I think you have to be talking about high
15 speed and high capacity.

16 MR. VEIN: One of the pilot projects
17 that I alluded to was a recently completed project
18 or at least the first phase of it where we
19 connected using fiber a major museum in San
20 Francisco to Boys and Girls Clubs and to a gaming
21 platform, and we did that because what we're
22 learning is that youth differently than certainly

1 I do and gaming has become a very fundamental way
2 that children learn how to survive and thrive.
3 What we did was built this where we pushed out
4 education content through a gaming platform to
5 these kids and after school experiences in the
6 Boys and Girls Club. We took a very simple botany
7 discussion around native California plants and
8 around food with the idea of not only teaching
9 them what the museum had to offer in terms of
10 programs, but also getting them to understand the
11 tie in to what they eat every day and turning it
12 into a green application as well so that they knew
13 that there was a reason that we were requiring
14 things to be recycled and food to be recycled. It
15 was a tremendously successful project,
16 tremendously successful only because the gaming
17 technology worked and it worked because it had
18 speed.

19 MR. GARR: I'll invite my other FCC
20 colleagues to jump in on questions here. I'd like
21 to maybe turn a little bit toward some of the
22 application issues that many of you raised, and in

1 particular I'll just throw out a question and
2 whoever wants to answer can jump in. There are
3 two questions I'd like to think about. The first
4 one is access to computing as it relates to
5 application which is one problem, so any
6 innovative ideas on how to work through that.
7 Second is relevancy of content which I think is a
8 much squishier problem. It's a lot harder to get
9 at. It's a lot harder to build a program around.
10 If you could give us any advice on what you see on
11 those issues as well as what advice you'd give the
12 federal government in terms of what role it could
13 play on those issues, I think that would be great.
14 This does not need to be the waterfall. Jump in
15 whoever has a thought.

16 COMMISSIONER COSGRAVE: I'll start with
17 the content. I think the content clearly is going
18 to drive application, assuming we address the
19 other hurdles that we've talked about, the access
20 hurdles are no small issue, getting the price to
21 where it's affordable as well as even the cost of
22 a computer to where it's affordable. I think the

1 programs we heard about with libraries wanting
2 computers and things of that sort are really key
3 to the solution here to solve this.

4 The content in terms of the examples
5 that we came up with, it's going to become
6 critical as more and more things are driven to the
7 Internet that that will force people to the
8 Internet, so I think the content is critical and
9 the coordination among the agencies is critical.
10 I've been trying to get coordination among what
11 we're responsible for, the Broadband Initiative,
12 with the Electronic Health Records Initiatives,
13 and there is no coordination at all. They're two
14 totally different efforts here in the federal
15 government that just don't seem to talk to each
16 other almost. Electronic health records and other
17 forms of electronic health capabilities that are
18 now coming out that people will have in their
19 homes are going to drive this tremendously,
20 absolutely.

21 MR. BHATT: I think Paul mentioned one
22 of the key things, and that's coordination between

1 the service departments of the city and that's one
2 of the things that we try to do in Chicago with
3 the Digital Excellence Action Agenda. I think it
4 helps to have a strong leader at the top for 20
5 years really governing the government. It really
6 helps to coordination go much farther, and with
7 the Action Agenda, one of the six objectives is to
8 help consumers and families access technological
9 resources and services and there we are talking
10 about leveraging 311. You can call 311 to
11 identify where the local technology center is,
12 where you can get more computers and access.
13 There are also things like improving wireless
14 hotspots across the city. And there is the big
15 role for the private sector in here. We have in
16 the Chicago land area large corporations that
17 advise the Mayor on the technology and the Mayor's
18 Technology Council and those corporations have
19 come forward and they do rotate, they recycle
20 their PCs very regularly, and then if we can tap
21 into those recycled PCs, refurbish them and have
22 them put back into the community at a very

1 affordable price, that really solves to a large
2 extent the affording the computers and equipment
3 issue. In terms of content, I think what New York
4 is doing with Access NYC in terms of providing
5 health and human services is one of the key areas.
6 Our study also mentioned that language is one of
7 the key barriers in terms of content, and 70
8 percent of our Spanish-speaking respondents to the
9 surveys did not have broadband at home. So I
10 think that's a larger area that we need to address
11 because that's what would more application because
12 if you have relevant content, you know why you
13 have to use that content, and then you will invest
14 into getting those affordable computers or access.

15 MS. SEIDEL: May I ask a follow-up
16 question I think to the one that Erik just asked?
17 We talked a little bit about the affordability
18 factor and the access to the services as well as
19 access to computers. I was talking to one of the
20 panelists after the break about the next piece of
21 that which is maintenance or technical support so
22 that once you actually find a way to get access to

1 the consumers who need it and you find a way to
2 get a computer into their hands, then when they
3 have questions, what then? I wonder if any of the
4 pilots you've undertaken or plans you have how and
5 whether that piece is also addressed.

6 MR. GORDIER: In our pilot that we did,
7 the community took on the role of help desk. It's
8 available not 24/7, but extended hours. Initially
9 we found a lot of inquiries and a lot of calls,
10 but what we found was that the people who learned
11 how to use the computers in the classes that they
12 took in order to get a computer really didn't have
13 many questions. They had learned how to connect
14 to the Internet wirelessly and to do the things
15 they needed to do in that environment. The
16 classes were held in their local communities. In
17 some cases it was maybe at a church that had a
18 little computer lab. One of them is a clinic, the
19 Lathay Clinic, and those classes were done there.
20 So it was not a big issue, but we do have the help
21 desk available through the community college that
22 was part of their collaborative contribution to

1 our project.

2 MR. VEIN: One of the things that we're
3 doing in San Francisco, remember I talked about
4 the four things, is trying to combine a couple of
5 them together. One of the ways that we're doing
6 that is partnering with Goodwill. On the
7 refurbishment part of the equipment, we're turning
8 it into a class with workers or volunteers,
9 low-income folks, in order to learn as that
10 computer is refurbished how to do it, understand
11 it and then build the community capacity that way.
12 It's just a small example, but one example.

13 MR. BHATT: I think two points from
14 Chicago. One of the things that we have is public
15 libraries has a program called Cyber Navigators
16 where college students and high school students
17 who are much more knowledgeable in terms of using
18 computers help teach the adults who are not so
19 savvy, called digital immigrants, they help them
20 how to use them. In terms of support, there is no
21 way that the city government can provide that
22 support with the resources that we have and this

1 is a classic example of looking out for help from
2 the private and nonprofit sectors. One of the
3 areas that we are exploring is working with some
4 of our local refurbishers to also have them
5 provide the support along with the affordable
6 equipment that they provide.

7 MR. VEIN: At the risk of plugging one
8 more of our partners, One Economy has a wonderful
9 program called Digital Connectors and if you can
10 get Digital Connectors in your community and
11 working with your community because there is such
12 a demand for them is an incredible asset to do a
13 lot of this work that you're describing from
14 education to maintenance to support. I highly
15 recommend them.

16 MR. DUREL: I'll tell you one of the
17 things that in Lafayette we have looked at and we
18 haven't come to any decisions or conclusions,
19 again, we're just trying to roll out the fiber
20 right now, but there are companies out there as we
21 all know that have dumb terminals where we could
22 potentially almost give a computer to somebody

1 where everything is Web based. There are no
2 viruses, no issues, nothing that they've got to
3 buy. Even the software, they would get basic
4 software like a Word product or a spreadsheet and
5 get emails and get things like that, but if they
6 wanted to do games, they would just pay for it by
7 the minute or pay for it by the second which is
8 very, very cheap where they wouldn't have to go
9 out and buy a product they might or might not use.
10 Again, that's one of the things we were worried
11 about that we would get into this business and end
12 up becoming somebody like Microsoft's support
13 staff because people often think there's something
14 wrong with their computer or something wrong with
15 their connectivity when it's really the software
16 or vice versa. So that's one of the things we're
17 looking at to potentially getting ahold of
18 something that's very, very inexpensive that we
19 could almost charge a \$2 or \$3 or \$4 or \$5 a month
20 add-on fee and just give the computer to them that
21 has no viruses and is very easy to operate.

22 COMMISSIONER COSGRAVE: To Joey's point,

1 this is actually a trend that's really taking off
2 in a big way. You'll hear it referred to as cloud
3 computing and things of that sort. We're looking
4 examples of doing that with city employees and
5 getting their computers and their desktops down to
6 the point where it's just a terminal. So things
7 go back to the way they were I guess in some ways
8 which is the old days of data processing as some
9 of us recall.

10 Could I switch subjects just a little
11 bit to a point that Joey made earlier? I don't
12 want this to be another North/South debate. They
13 had one on the last panel. The point of what he's
14 done in the city and funded it through the city,
15 to a large extent that's neat. In New York City
16 we have two cable carriers, a telecom carrier and
17 special carriers. We were able to actually lower
18 the price and increase the speed up to 100
19 megabits across the board now. It's really the
20 entry point that the providers have to provide
21 now, not the entry point but the capability, just
22 because we had enough people going after it. I

1 think when you're in New York that everybody wants
2 to be there, so it helps, but I think the message
3 to the FCC here is there isn't one size fits all
4 here. You've really got a lot of different
5 situations around this country, and from the last
6 panel comments were made that municipalities or
7 local governments aren't going to necessarily be
8 the solution. In a place like New York where
9 we're the 100 pound gorilla there up in the state,
10 we're delivering it in a different way than Joey's
11 doing it, but the point is we're both getting it
12 done on a local basis with the financiers and I
13 guess that's really what my message is, that there
14 is no one size that's going to fit here. It's
15 very different based on the relationship between
16 the states, the cities and it's just a different
17 problem everywhere throughout the country.

18 MS. SHERWOOD: To echo your point, is to
19 say that really this is all about access and once
20 you have the access, the content is there now and
21 the content is limitless, the potential is
22 limitless for government to do things online,

1 transactions, interact with residents, but in
2 order to do that we have to make sure that
3 everyone has adequate access, and again I echo the
4 point of high speed, high capacity.

5 MR. DUREL: And I will come back again
6 and say it over and over again, that
7 municipalities at least have to have the option so
8 that their citizens can make that decision. As
9 you said, one size doesn't fit all, but if you're
10 limited to only one option, then that one size
11 while it may not is the only choice you're going
12 to have. So I think it's important as the FCC
13 moves forward that they do everything that they
14 can do make sure that all competition is
15 available.

16 MR. GORDIER: I echo what has been said
17 and I'd go one step further. There is a lot of
18 investment of taxpayer dollars, federal, state,
19 local, in infrastructure and it seems like we all
20 have barriers to sharing that same infrastructure.
21 I have found conduit that parallels conduit that
22 I've got that was put in by the state or federal

1 and rather than sharing that space, we're denied
2 that. There need to be avenues to let us leverage
3 that conduit space. It would lower the cost of
4 entry enormously. I built my first 26-1/2 miles
5 of fiber in partnership with a local CLEC, but the
6 big guys wouldn't even talk to us about sharing
7 any part of their infrastructure. So it's really
8 important that we turn all the stones over, look
9 underneath them and leverage where we can. And
10 when it comes to government space, we ought to be
11 all playing in the same sandbox.

12 MS. SHERWOOD: If I could make one final
13 point as well to say that for any new construction
14 for any new fiber builds we need to make sure that
15 it doesn't cost that much more to put in high
16 stand count fiber, and also maybe put in a second
17 conduit that could be leased out for the private
18 sector to make that available. We're in control
19 of that now and moving forward that should be a
20 requirement.

21 MS. SEIDEL: I wanted to make one
22 comment based on something I think that Lori had

1 mentioned before when you were talking about the
2 importance of cooperation and collaboration
3 generally. I think you had mentioned that
4 something like the FCC's former LSGAC might be
5 employed in an exercise like this and I wanted to
6 let you know that the LSGAC is now called the
7 Inter-Governmental Affairs Advisory Committee. It
8 still exists. As a matter of fact, I think the
9 folks from the Broadband Team will be talking with
10 that group when it meets on the 18th of this
11 month. So a very good point and I think we're
12 endeavoring to get input from that very collection
13 of folks.

14 The other question I had, Hardi, was
15 based on something you had said earlier. You
16 talked about the importance of having real-time
17 data, about the application of services, so that
18 that would then enable better I think you said
19 intervention in terms of targeting areas where
20 maybe the uptake isn't what it should be. I'm
21 wondering if there are certain data sources that
22 you're already using or planning to use to help

1 you get that real-time data.

2 MR. BHATT: I think the current way we
3 get data is surveying people because we asked the
4 providers to provide that data and we have been
5 unsuccessful so far, but with the broadband
6 mapping grant that's coming up from NTIA, maybe
7 that will help. I don't know we will see \$150
8 million go. But I think making the incumbents
9 provide that data, and I understand that this is
10 to increase the adoption it's kind of creating
11 more customers, more consumers, it's not just
12 about punishing somebody that they haven't
13 provided access in this particular area, it's more
14 like let's work together collaboratively how can
15 we provide that information.

16 MS. SHERWOOD: One thing I was thinking
17 about in the context of other outreach we've done
18 in the past though is even to the extent you get
19 that data from the providers, you don't know
20 whether that household is a household for example
21 where English is not their primary language or
22 whether that's a household that is two senior

1 citizens, and I think your outreach effort and
2 your education campaign might vary based on having
3 that more granular.

4 MR. BHATT: I agree with you.

5 MS. SHERWOOD: One idea that we've
6 passed around just in informal discussions is that
7 wouldn't it be great to add this questioning onto
8 the 2010 census going out?

9 MS. KRAVETZ: You're not the only one
10 who likes that. We've gotten a couple of
11 questions from WebEX participants about what
12 people would think about that noting that in 1930
13 everyone was asked whether they had a radio.

14 MS. SHERWOOD: And that may be able to
15 help provide data on language-specific access and
16 other rural and suburban access.

17 MR. GARR: Again in the same way that we
18 turned the last panel toward national purposes
19 toward the end of the discussion, I'd like to do
20 the same in this case if there is no objection
21 from anyone with a little bit of a twist compared
22 to this last time, and that's to take advantage of

1 the fact that Paul has come down. It's hard not
2 to talk about New York and think about public
3 safety given the experience of your great city. I
4 think we have had separate workshops on the public
5 safety topics. I say this with a little bit of
6 trepidation because we could probably spend the
7 next many weeks talking only about public safety.
8 Cities have a unique role in that community.
9 You're often where the rubber meets the road on
10 public safety issues. So I wonder if, Paul, you
11 could make any comments on any of the lessons that
12 New York has from a public safety standpoint when
13 it comes to broadband and any advice that you'd
14 offer the FCC as we think about that national
15 purpose. And I'd absolutely like everyone else to
16 share their views on it as well, but with New York
17 in the room it seems like a good place to start.

18 COMMISSIONER COSGRAVE: I'm not going to
19 steal Hardi's story that he will tell you about
20 the highway example and the metaphor there, so
21 I'll let him do that because that was well done I
22 thought.

1 MR. BHATT: Maybe I can say that first.
2 The story that I shared during the informal
3 discussion was when we started building the
4 highways, we never built two highways, one for the
5 regular public and one for public safety. We
6 built one highway and everybody moves aside when
7 there is an emergency vehicle passing. So with
8 broadband infrastructure, if we can take the same
9 approach where we build one highway and then there
10 is technology available where everybody can just
11 move aside and public safety can take over in the
12 times of an emergency, that is the story that Paul
13 was talking about.

14 COMMISSIONER COSGRAVE: I related to
15 that very well because that's what we did with the
16 wireless network that we ended up building in New
17 York. We have a high- speed broadband wireless
18 network that was primarily done for public safety.
19 Most of it was done with city tax dollars, but we
20 did get some Homeland Security funds. It works
21 exactly like he said, that public safety has
22 priority on that. The reason we did it is through

1 every incident we've had in New York from the
2 blackout to 9/11 to even when Cory Lidle's plane
3 crashed into an apartment, in every one of those
4 examples cell phones went out. You just could not
5 get access. So essentially it was clear for
6 public safety that they could not use on cell
7 phone technology from the public carriers to
8 provide the support we need, there is just too
9 much concentration in the city, so fundamentally
10 we need our own capability. We provide plenty of
11 services over that network now that are not public
12 safety. We're doing water meter reading
13 electronically now for homes. We're doing our
14 traffic light control over that system. So there
15 are a lot of examples where you can write goals, I
16 agree, and that's one of the things we've got to
17 break down. I think the FCC could actually help
18 us here by not treating them as separate as they
19 probably have been treated in the past.

20 MR. BHATT: I think that requires to go
21 beyond the FCC and go to the other federal
22 agencies. When Homeland Security dollars flow

1 into cities, instead of blocking other uses, if
2 those dollars are going into building the public
3 safety broadband infrastructure, it should be
4 allowed to be used always securely for other
5 public administration and public benefits
6 purposes, the infrastructure, and I think that's
7 where coordination at the federal level would
8 really -- that that also would solve the
9 sustainability problem because the one big chunk
10 that's coming through the BTOP grants, and we
11 don't know how many more such chunks would come,
12 but the other kind of dollars are flowing
13 constantly and those could be utilized to really
14 sustain the infrastructure that they put through
15 this.

16 COMMISSIONER COSGRAVE: Erik, there's a
17 whole other discussion around 700 megahertz and
18 where we ought to go there with broadband, and I
19 don't want to get into that now because I don't
20 that will really take us off topic, but that
21 should be coordinated in here too. We should
22 drive for broadband on 700 megahertz.

1 MS. SHERWOOD: In Maryland it's no
2 coincidence that the two most active fiber
3 committees were based around public safety
4 originally, and given our proximity to Washington,
5 D.C., and the issues we've had aside from video
6 conferencing and the need to make sure that our
7 fire and police stations have what they need at
8 their home bases to do what they need to do is
9 critical and needs to be part of the conversation.
10 Then I don't want to get into the megahertz
11 discussion, but also say that the Warren Act has a
12 role somewhere as well.

13 MR. GORDIER: I would echo some of what
14 has already been said about Homeland Security. We
15 have a big footprint and a requirement here, we
16 also have some of the largest military
17 installations in the country in El Paso, and
18 security is a big issue for us as well. The need
19 to collaborate together I think is huge. I was
20 talking with the director of technology for Fort
21 Bliss and he was lamenting that he was restricted
22 to about 23 megs, and that's the total pipe going

1 into the military base, for the nonsecured
2 communications that they would have with the rest
3 of the world. Their secured stuff is fast and
4 apparently very adequate. I invited him to come
5 on board our fiber and it just seems to be there
6 is no way that we can cross that bridge even
7 though I could give him dark fiber. The same way
8 with FHWA and being access to conduit. I'm
9 looking at conduit that's 4 inches in diameter
10 that has a half-inch diameter fiber cable and the
11 rest is empty and it would be wonderful to be able
12 to stick my fiber in their conduit and be able to
13 leverage that. There needs to be a lot better
14 coordination across all jurisdictional levels to
15 economize and share jointly in the infrastructure.

16 MR. GARR: Are there any other comments
17 on the general public safety question? My final
18 question unless there are others from my teammates
19 here is more a chance to allow you to pick a
20 national purpose that you're engaged in on the
21 ground whether it's health care, education,
22 energy, et cetera, and give us a little advice on

1 that particular topic as it relates to a city.
2 These priorities you hear a lot about Washington,
3 but to me the great opportunity we have having you
4 here is that you have hospitals that either are
5 part of your jurisdiction or are next to your
6 jurisdiction, you have utilities that you work
7 with every day in ways that we don't here at the
8 FCC. So if you think about education, health care
9 and energy, if there are any great examples of
10 real value being created by broadband in your
11 communities, it would be great to cover that now
12 and I think that's a nice way to wrap up. I think
13 it's very clear that there are huge opportunities
14 for broadband, but these particular purposes when
15 you start thinking about the country as a whole,
16 if we could get these right, lots of good things
17 would happen.

18 MS. SHERWOOD: In Howard County we are
19 doing what we can to make the world a cleaner and
20 greener place, and one of the topics we have not
21 touched on is energy. To give you a specific
22 example, we have a pilot program to install sub

1 meters in county buildings. What we are working
2 to do is to put those sub meters in to monitor
3 energy levels and carbon emissions and all those
4 things moving forward. In order to have those
5 meters and create the dashboard and get the
6 results that we need, all of our community
7 government buildings need to be interconnected on
8 one network and the goal ultimately would be to
9 put a sub meter on every single county school
10 building and then you'll be able to do such things
11 as compare footprints between schools to find out
12 who is using more energy, if there is leakage
13 somewhere, what the water bills is like, what the
14 air quality is like, and then all of those things
15 together can be used to create a more efficient
16 government, stop waste and create a cleaner
17 environment.

18 MR. DUREL: I'll give you a couple
19 little examples with the utility company,
20 Lafayette Utility System. Of course citizens will
21 be able to go to their computers on the 10th of a
22 month and look at where they are so far for the

1 month, project what their bill will be by the end
2 of the month and help them conserve. We're also
3 looking at something right now to avoid something
4 like rolling blackouts which have never had yet,
5 to but to avoid blackouts of any kind we're
6 looking at something right now where we'll be able
7 to instead of cutting off the electricity and
8 having that rolling blackout, potentially just cut
9 off their air conditional systems and do that in
10 the middle day, but we'll have access to that from
11 a station from our headquarters, and again instead
12 of having a whole neighborhood or a whole portion
13 of town blacked out, we can at least just shut off
14 their air conditioning systems, and plenty of more
15 things like that.

16 MR. VEIN: There are so many examples
17 that it's hard to even pick. For example, we've
18 got something called an Eco Map in San Francisco
19 where the entirety of San Francisco from an
20 environmental standpoint is broken down by Zip
21 code and it's a completely inclusive map that
22 tells you how well your Zip code is doing in terms

1 of recycling or cutting down on carbon emissions
2 and it gives you ideas on how to do that, and bike
3 routes, and it's a very interactive thing that
4 helps you to answer all of the questions on your
5 own in order to do that from a green standpoint.

6 From a benefits or human welfare
7 standpoint, all of those benefits, whether they're
8 federal, state or local, are now available on one
9 Website within the city and requires if you're
10 going to do online applications broadband in order
11 to do that. I struggle with this question because
12 when I look at this issue, it requires an
13 ecosystem, it requires the demand and supply if
14 you want to look at it that way working together.
15 One is no more important than the other. You need
16 to look at it as a package and you need to look at
17 all of the pieces and how they interrelate
18 together. Certainly programs do drive adoption.
19 There is no question about that, but if you don't
20 have all of the other pieces, it doesn't make any
21 difference if you've got great programs out there
22 because you can't support them and you can't

1 maintain them.

2 What I try to do or what we do in San
3 Francisco is look at this as ecosystems and look
4 at each of the four pieces and say in equipment,
5 is a cell phone better than a laptop, better than
6 a desktop, versus a gaming technology platform?
7 Which one is going to work? In terms of an
8 application, there's public safety, there's
9 recreation and culture, there is transportation,
10 and I think we need to be concerned about all of
11 them and build in the community capability to
12 resolve and use all of the things in our toolkit
13 if you will in order to address this problem.

14 MR. GARR: Are there any other comments
15 by any of the panelists?

16 COMMISSIONER COSGRAVE: I'll just make
17 one comment coming back to my
18 one-size-doesn't-fit-all again theme I mentioned
19 earlier. Look at the three big cities here, San
20 Francisco, New York and Chicago. We are three
21 fundamentally different structures. San Francisco
22 has one county and one city, Chicago has a

1 separate county, Cook County, that is not part of
2 Chicago. In New York we got five counties that
3 are part of the city, so that you've got something
4 different in each city. I take away from that in
5 terms of dealing with the carriers here, size
6 helps. Right? Scale helps, because I can
7 negotiate things that I'm sure the smaller cities
8 can't negotiate because they can just pressure
9 them more. I'm sure Lori is a great example of
10 this by pulling together from the local
11 municipalities you've got leverage and you were
12 able to put some pressure against the carriers to
13 do that probably I'm sure with cable and you do
14 that with broadband. So how we do that is really
15 a challenge because we're working across these
16 different entities, and when scale gets to big,
17 New York City is the fourth-largest government in
18 this country not counting the federal government,
19 the entities themselves become huge and it's
20 really tough.

21 But there are examples here in public
22 housing, in public health, in public education,

1 huge examples in transportation and in public
2 safety. All across the board there are examples
3 in every single one of these areas. So how do we
4 coordinate them and how do we leverage the common
5 infrastructure is really our big challenge.

6 MR. DUREL: There's something else that
7 hasn't really been mentioned and that is we have
8 competition all around the world and all I think
9 about the whole time is opportunity and what
10 opportunities are our citizens slowly going to get
11 left behind on from a capacity standpoint and what
12 we can deliver with good, strong broadband, video
13 on demand and things that kids are going to
14 produce and things that become available as they
15 are created, what opportunities are our citizens
16 going to lose on? I think when I got into office
17 in 2004, the number I heard was America was
18 eleventh in the world in deploying broadband, and
19 I guess the most recent numbers are pushing
20 twentieth or twenty-fifth. Maybe it's still at
21 eighteenth or something like that, but to me I
22 don't see how we can't be having this discussion,

1 how we can't be pushing this forward is for no
2 other reason because our competition is doing it
3 all around the world.

4 MS. KRAVETZ: One of the questions that
5 I was hoping that we would get to that was
6 submitted by one of our WebEX participants sounds
7 like it comes from someone who's trying to get
8 this going in his community and trying to
9 understand what the keys are to getting that
10 coordination and collaboration going in his
11 community. Recognizing we have so many different
12 formulas here as Paul was talking about, I was
13 hoping as a final question could each of you give
14 us what do you think are the top two or three key
15 things to really getting that collaboration and
16 coordination going in our communities?

17 COMMISSIONER COSGRAVE: I'll start. I
18 think it's leadership. In my case I have a mayor
19 who gets it. Chris is in exactly the same
20 position. He's campaigning to be governor on a
21 lot of these issues, so our mayors get it and
22 Hardi's mayor gets it. So it's leadership first

1 and foremost. I'll start with that.

2 MS. KRAVETZ: Let me ask you a question.
3 I don't know for certain, but it sounds like all
4 three of you have city government structures where
5 the role of the mayor is prominent as opposed to a
6 city council. Do you think that matters? Do you
7 understand what I'm asking?

8 COMMISSIONER COSGRAVE: That's
9 definitely true in New York. Yes, I do
10 understand.

11 MR. VEIN: San Francisco is not quite so
12 clear. There's a very strong county board and
13 Board of Supervisors and very strong mayor, and
14 I'm lucky in that I do have a mayor who gets it
15 and I also have a board president who gets it. To
16 add to what Paul said and to what I said earlier,
17 I think also in addition to leadership, there's no
18 question, somebody needs to have a vision.
19 Somebody needs to be out there stating that this
20 is where we're going and a framework for how
21 they're going to get there. I don't think
22 government should be dictating what the framework

1 pieces are, but I think there needs to be that
2 framework and if somebody can do that and keep
3 doing it, eventually what you get is people
4 understanding it and starting to move forward and
5 be creative through pilot projects or whatever in
6 order to test it out to see what's possible.

7 MR. BHATT: Leadership and vision
8 directly comes from Mayor Daley in terms of
9 leadership and vision and bringing people
10 together. But I think the third important key
11 aspect that again comes from the mayor's
12 leadership is over sectors coming forward for the
13 common goal because this is not a problem that can
14 be solved by the public sector alone or by the
15 federal government or local governments or state
16 government. It is everybody's problem, everybody
17 has to come forward, and if that kind of a message
18 can be sent across the community and the benefits
19 of those, then it becomes everybody's problem and
20 everybody has to come forward to achieve that
21 vision and solve that problem. So in Chicago we
22 see that the foundations are creating strong

1 partnerships with the local government to address
2 this issue and with that the private sector has
3 also come a long way in terms of helping solve the
4 adoption issue and we are hoping that even the
5 access issue will be something that in the future
6 we'll be working collaboratively with the private
7 sector especially with the open access factor
8 that's in the new FCC policy.

9 MS. SHERWOOD: Our example is we start
10 off with the question, What do you need? I know
11 with Joey's experience in Lafayette, the answer
12 was we need fiber to the home. That may not be
13 the case, one size fits all across the
14 jurisdictions, but what do you need, and then you
15 need to bring those stakeholders into a room and
16 have discussions figuring out how you get to where
17 you need to be for the end game.

18 MR. DUREL: And I will tell you speaking
19 from our experience that the council is very, very
20 important. Our form of government does have a
21 strong mayor, but you still have to have the votes
22 on the council, and I will tell you today that my

1 new council that is less than 2 years old, not one
2 person on that council, and this is very unusual,
3 was a councilmember 2 years ago. If we were
4 taking this vote to them today, I would tell you
5 that Lafayette would not get fiber to the home.
6 So people have got to pay attention to the
7 councilmembers who in our case are elected
8 district by district and unfortunately you get
9 some of them who come into office and all they
10 care about is barking dogs and drainage.

11 MR. GORDIER: I would echo some of what
12 has already been said. It really starts with a
13 vision and establishing a policy that says this is
14 what we want to do. I've been blessed that this
15 community, not just the city, the county, the
16 schools, the private sector, a number of small
17 businesses, have really stepped up to the plate.
18 They leave their private agendas, they leave their
19 egos at the door and we're looking out to try to
20 do what is best for the community. It started
21 with the mayor who we had at the time, he's still
22 mayor, who had a vision that this is something

1 that would be good for the community, but he
2 didn't hang onto it from a political perspective,
3 he turned it over to the people who could do
4 something about it. The City Council, this has
5 been one effort that we have done that
6 consistently gets unanimous support at virtually
7 every jurisdictional level, on the political side,
8 and just wonderful private-sector involvement, and
9 everyone really needs to come on board. You have
10 to understand the needs of the community and that
11 doesn't mean bringing them into a room sometimes,
12 sometimes it means sitting down in their living
13 room and talking with them, and we did a lot of
14 that to really understand some of the cultural
15 issues that we had to deal with here, some of the
16 barriers with language, and what we needed to do
17 to be able to drive adoption. Like I said, all
18 the bandwidth in the world would be worthless if
19 they didn't have a computer or know how to use it
20 and we've been able to address those really core
21 issues as part of this whole continuum and we
22 continue to drive that forward.

1 MS. KRAVETZ: Mr. Dugger who is the
2 WebEX participant who sent that question in has
3 more questions, so I'm hoping that since we're
4 running out of time we can continue this
5 discussion online either in the blog or just
6 email. Thank you everyone so much for coming
7 especially those who traveled. I really
8 appreciate your help, everyone here does, and like
9 I said, we'll be doing some follow-up. We hope
10 you'll be amenable. We have some specific
11 questions about how to find your action plans, and
12 some specific questions that have come in for you,
13 Paul. We look forward to them all, and thank you
14 everyone very much.

15 (Whereupon, the PROCEEDINGS were
16 adjourned.)

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