

NITA Conference 2015

First Panel: A Shared Future: Regional Approaches to Broadband

Deb Socia: Opportunity and access that was awesome. A huge thank you to our Keynote Speakers, you know you expect something spectacular when you have Senator King, Susan Crawford and David Edelman sharing their wisdom together on the stage. Can we have one more hand for our wonderful Keynote Speakers.

To let you know what's happening as we move forward, what's coming ahead. We're about to hear from a panel of leaders here in New England who are taking a regional approach to successful broadband adoption. After that we'll have a morning break and we will follow that with remarks from Jill Szuchmacher from Google, and then we'll have a Panel on real world impacts on—it's really interesting how this whole thing is shaking while I'm talking—high quality broadband access. Following her remarks we do have a special announcement and that will be followed by our lunch, Keynote, and I always appreciate hearing from Assistant Secretary Larry Strickling. After his comments we'll move to breakout sessions, we'll direct you to where those are. Our final Panel comes back in this room and that Panel will announce all of the findings of the Broadband Opportunity Council, and that was the report released just a week ago by the NTIA.

We will be taking audience questions throughout. You'll see there's a microphone here and another one right there, if you have questions please line up at the microphone and the moderator will call you.

It is now my pleasure to turn this over to Next Century Cities Policy Director, Chris Mitchell to moderate our discussion. Welcome, and thank you.

Chris Mitchell: Thank you everyone, we are going to have an excellent Panel right here. We are going to do some rapid fire kind of discussion where the goal is for everyone to speak often but for short durations of time. I'm going to introduce each person with a short question to get them going. We have four mikes so we're going to be passing them through the pairs.

We're going to start off with Monica Webb. Monica, you've been herding one of the more interesting projects for many years, one of the largest regional approaches that I'm aware of in terms of so many different municipalities working together in western Massachusetts. Tell us a little bit about it.

Monica Webb: We've actually been working at this since 2010, so I think we have it down at this point. Essentially like a lot of rural areas we were about 45 towns that were unserved by cable, so there were pockets of DSL, there were pockets of mobile and fixed wireless, but nothing universal, nothing affordable, and nothing robust. In 2010 we met at various different broadband events, because the State of Massachusetts actually recognized this was an issue back in 2006 this was on the agenda, and in 2008 they passed a Bill funding \$40-million to solve the issue of underserved communities, primarily in western Massachusetts.

Then we had the BTOP program and that money was used for middle miles so the problem continued to exist, the last mile problem continued to exist and as communities we were concerned about it actually happening and it happening in a fashion that was robust. There was at that time, even up

until maybe a year ago a lot of conversations about wireless. I'm not sure how many folks have spent time in western Massachusetts, its beautiful this time of year especially. But a lot of hills, a lot of ridge lines, a lot of trees and that is pretty hostile to fix wireless. About eight of our towns tried it and the per premise cost range of about \$1,700 per premise to \$6,700 per premise, and some towns even spent as much as \$7,000 that's for .5 to 1 megabyte download, and it only served very small portions of their communities.

We wanted to make sure that the problem was going to be solved in a way that was robust, and we formed Wired West. We actually found through some grant work we did, we found that Massachusetts actually had a statute called the Municipal Lighting Plant Statute. The last conversation up here we were talking about rural electrification. It was created when rural Massachusetts towns couldn't get electric service. In the mid 1990s telecommunications was added but no towns have used it specifically for that purpose. They've added it onto their electric systems. We had 45 towns that created Municipal Lighting Plants within their towns. It also has the ability to create a cooperative, and that's where the regional aspect came in.

One of the major issues for rural towns is having the scale, having enough subscribers to support a network to support the resources to manage the network that is required, and that was really one of the key reasons that we felt we needed to aggregate all of our towns together. We've been moving forward, we've done a lot of very comprehensive planning since then. Where we are today is we've done a demand aggregation campaign, we have about 7,000 subscribers that have paid deposits. We have 24 towns that have raised \$38-million to build a fiber network. The state is pledging to fund, depending on the town, between 35-40% of the cost in addition to the \$38-million. We're working closely with the state on planning the network and hoping to see that in the next three to five years in our region.

Chris Mitchell: Excellent. One of the things that I found interesting is that you've approached open access, that's been a goal it's been a challenge. You've wanted to try and build without the cities incurring any debt themselves in many cases. There's a number of things we may come back to, but people may want to find Monica afterward as well to talk about some of these issues, because if there's a model you're considering odds are she's worked on it with some of her towns.

But we're going to move onto Briana Warner who works with Island Communities here in Maine. I think many of the communities in western Mass feel like islands but these actually are islands which are some of the more isolated areas in the country. Tell us more about what's happening there and what you're doing to improve the broadband situation, please.

Briana Warner: For those of you who don't know Maine, there are 15 year round island communities here on the coast of Maine. This is down from a several hundred at the turn of the century, so these 15 communities that are still around are real survivors, and communities that have taken it upon themselves to make sure that their communities survive into the future. These are communities where everybody knows the children at the schools, everybody knows each other's names and folks look out for each other. There are many islanders in the crowd today, they are very special places.

One way in which people have really said to themselves about broadband, this is about survival just like our ferries are about survival, is really by saying how do we make sure that our communities are able to exist in 20 years. And right now none of them meet the federal standards for minimum broadband capacity. One thing that I thought was really interesting that Senator King said earlier and really important is “this is a public utility”. We wouldn’t say people in rural areas shouldn’t have electricity, at the same time we also don’t say we’ll give them mediocre electricity because it’s harder to get people to have sustainable communities in rural areas.

Think about islands, you not only have to take the ferry to get across to the mainland and to get food, you also have the added problems of just bringing young people back out to find careers, to find jobs. One community about two years ago really started thinking about how they could sustain their island, and this is isles grow which was mentioned early at the table.

This is an island of 600 year round residents and they got together and said okay we need to have not just unreliable and spotty broadband, but a real broadband capacity to bring in young people to provide new careers for the island, to let summer people stay a little bit longer, and maybe actually move here to work because they could work from home, we can expand career options. In December of this year they’ll vote on a \$3-million bond that could make them the first universally connected town in Maine, gigabyte connected town in Maine. That’s extraordinary, a 600 person island connecting every residence and ever business to a gigabyte network.

We really learned a lot from this community and this town and said to the other islands “what are your visions on broadband?” We contracted Tilson Technology earlier this year to do a survey of 13 of the 15 islands to get some idea of a community vision about what is broadband to you, what would you like to see it used for, and how can we be helpful in getting you to get to that point. We’re very much at the first stage in that and what we found in every single community meeting was the answer was survival and bringing our young people back.

We have a huge demographic problem in Maine and that’s particularly true on the islands and remote coastal communities. Susan Corbett who will be talking working in Washington County sees this all the time as well. Our state is old, the rural areas are older and this is the key to making sure that these communities survive into the future.

We’re really excited to see what comes out of this report and we have had a huge benefit of having some really independent minded and hard working folks in the state of Maine that have made some real impact in getting rural communities connected.

Chris Mitchell: Excellent. I think one of the people associated with that project actually has been Fletcher Kittredge, GWI, a local internet company here in Maine that I have had my eye on. As fierce supports of municipal networks and small businesses, we’ve been trying to keep our eye on what’s happening with innovative small companies around the country. GWI has been keeping us busy with the various approaches you have going on here. Can you tell us a little bit about what I’ve heard termed the “main model” please?

Fletcher Kittredge: Qualities of Maine’s culture is we’re ingenious and we’re self-reliant because we have to be. If you’re on an island you’d better be able to support yourself on the island, and we’re resourceful. The main model has fallen out of that and it’s something that has developed over time and there have been many people involved in that, many of whom are in the room. It’s a

model that's very strongly public private partnerships, joint investment both from private industry and the government. It's an open access model, it's very pro competitive, and it's also got an emphasis on dark fiber. When it comes to open access, dark fiber physical layer, layer one, and there are about eight projects you can look at that are following this model. The most significant one which has been a smashing success which has led the way is the Maine Fiber Company's Three Ring Binder which was a BTOP, 80% government investment 20% private investment.

What I noticed is it's been a success for both the government side and the private side. We never get to make investments looking backwards we also have to make them guessing about what the future will be. If you had gone back to 2009 and said we're going to build this network, dark fiber network, if you could see the future you would have realized that it didn't need a government subsidy. A day would come when it would be a great investment just if private equity could come up with the money, but there was no way anyone could see that in 2009. It's not so much the government subsidy but the government was willing to take the risk to do it. They could give private money some confidence that everything was going to be okay.

The Three Ring Binder is an open access, very high capacity, meaning many, many strands of fiber, dark fiber network, it's about 1,100 miles long. It spans all of main through the rural areas in the big rings. What it has done, it's been around for six years, it's going to be used far more in the future than it is now but it's already got 30 or so providers using it. Some of those are the people you would expect in Maine, I think just about ever provider in Maine is using it except one of the incumbent cable companies. It's also drawn in a lot of national or international providers that would have otherwise done service in Maine because it's a really useful platform for them.

Open access means that they know that they're not going to be at a competitive disadvantage. They can come in and do business here and it's going to be a level playing field. Also the way it was structured, some of the government subsidy is essentially passed on, meaning it's cheap. The fiber compared to what you'd find most places, it's a very, very low grade, it's half of what you would expect to pay if you were buying just straight up from a commercial provider. That created a huge middle mile and now what's starting to happen is projects are being built off of that. There are seven towns now, or cities, that are in the process of already starting to build open access networks. Islesboro is one, it's unique because it's actually a lit service open access but at the layer two, the Ethernet layer. And the others are all building last mile dark fiber off of it, and they just have to pay for, it's resourceful and frugal because they only have to pay—they don't have to pay the operating cost and they don't have to pay for the equipment. All they have to pay for is the dark fiber. That's enough to bring competitive providers in.

Chris Mitchell: Excellent. We're going to be talking more about each of these projects as we go through. There's a lot more detail that goes into this as well as some of the challenges and expected benefits.

I want to turn next to Connecticut with Elin Katz, Consumer Counsel for the State of Connecticut. I think someone who gives hope to all of us in the sense that several years ago, I don't think you described yourself as a broadband expert and I think you might still not, but you're a lot closer. It's a sign that this is a field that is challenging for people who are interested, and pretty smart, you can dig in and learn it very quickly and become very knowledgeable in terms of that kind of approach.

You have been working in a very unique role as a state official trying to help cities figure out what they can do, and also to work with private providers in terms of expanding access. Tell us more about what's happening in Connecticut?

Elin Katz: First of all thank you very much, and I'm watching and listening to Fletcher going, oh I can't talk about Level-2 versus Level-1. There's a learning curve obviously, but I think one of the first things is why would we be putting so much energy into this, into Connecticut? Because Connecticut is the most wired state in the country, and the initial pushback we got was "why would you even want to change what's going on in Connecticut?" We started what we're doing with a listening tour and with reaching out to high tech businesses, to municipalities, and what we heard is what we suspected which is that even though Connecticut looks great on paper there are many, many challenges.

I'll just give you three quick examples. We have a group of municipalities that had banded together for the rural broadband coalition, which is a number of municipalities that estimate that approximately 10% of the residents have access to nothing, no dialup, no cable, nothing. That's thousands of people in Connecticut who have access to nothing. We also hear from many businesses that their access is very limited and even if they can get access it's incredibly expensive. You would probably be surprised to know that there are businesses on Main Street in Hartford which is exactly what it sounds like, Main Street, who have Comcast on one side of the street but it will cost \$60,000 for Comcast to cross the street and so the businesses on the other side of the street are actually on dialup. That's in Hartford, Connecticut. Then third, I was in Bridgeport, Connecticut which is the biggest city in Connecticut with Senator Chris Murphy discussing broadband in Bridgeport High School. When he said how many of you have broadband access at home, or he said how many of you don't have access at home—1/3 of the students raised their hands. When he said why, one of the students said we know we need it but there's just a lot of months that after we pay the rent, after we pay whatever other bills and utilities there's no money left over for broadband. It's a third of the kids in the biggest city in Connecticut who don't have access at home because of economic reasons. Those are the three real reasons we felt that we really needed to figure out a way to change the dynamics.

What we've done is we've worked with municipalities to create a model whereby they would now, in September of 2014, with an RF2 seeking partners, they rely on a private partnership, to develop internet networks in their municipalities. They had four requirements, one is that respondents had to provide financing. The municipalities were not interested in municipal bonding, it had to touch every home, have fiber in every home, had to provide a basic level of internet service to every home at a very low cost, and then be able to provide gigabyte infrastructure at competitive prices around \$70 to \$90 a month.

We've got a number of respondents, we did vendor interviews. I should say, we started with three municipalities who were leading this effort, and it is a municipal led effort, and along the way within a month we had 46 municipalities who had joined us, and now we have over 100 municipalities who are interested in moving the ball forward.

To kind of get to the end of the story, the municipalities after the vendor interviews decided they wanted to continue discussions with one company in particular, Macquarie Capital, that is able to provide financing and build an open access network that will be owned by the municipality, and we have two municipalities, Hartford and New Haven, who are seriously considering, have resolutions

that are either with their Town Councils or about to be with their Town Councils to consider fiber to the home deals. I think we're right on the edge, and I should also add that Frontier has also put in a competing proposal for New Haven, so New Haven is now actually considering two proposals.

There's a lot of other municipalities in Connecticut who are interested, but who are sort of sitting back and waiting to see what the other municipalities are going to do.

I think if Hartford and New Haven go forward we're going to see a number of other municipalities who are going to want to join them.

Chris Mitchell: Excellent. Our final guest is a Legislator from here in Maine, someone who came on the scene and immediately became very interested in broadband, and that's how we became aware of him over in Minnesota and immediately began begging him for an interview for nine months. I'm excited to be on this stage with him, he's been very modest in terms of not wanting to talk about the legislation he's encouraged until after it was enacted into law. I am very excited to hear more from Representative Norm Higgins.

Norm Higgins: Thank you. I was in Massachusetts, Plymouth, Massachusetts yesterday watching my 9 year old grandson play football. It seemed like a really important thing to do, and I was driving up today and I was thinking how did I get here? A year ago I was in the midst of a fairly aggressive campaign to get elected to the Maine Legislature. My experience is four and a half decades in public education at the local, state, and national level and made the erroneous assumption that I would probably one, I'd be appointed to the Education Committee.

Well... One should not make those assumptions in politics—lesson number one. I was asked what my second choice was, and I went "wow, I don't really know if I have a second choice." I had missed a presentation in my county by Susan Corbett, and I followed up by getting the material and talking to people in my Economic Development Council in my county. I was kind of intrigued by that and it wasn't long after and I attended the program at Maine Development Foundation at the University of Maine. Belle Ryder was here, Belle Ryder from Orono was here and she gave this impassioned presentation about broadband and how it could transform rural Maine.

If you can't tell from my accent I am from rural Maine. My county has the oldest population and we are always in competition with Washington County to be the poorest county in Maine, and we live really on the Maine frontier, we are very small and we're economically challenged. It's just the prototypical rural area. I thought I wonder what we could do?

Based on that I started making some phone calls and a number of you here in this room helped participate in helping educate me rather rapidly, introduced a couple Bills which I didn't think were all that big a deal. One was to remove the sustainability fee on the Three Ring Binder. First of all I thought a Three Ring Binder, as an educator you can imagine what I thought it was. But now I know it's a little different than that, and thank you Fletcher and Josh, and several of you others in actually helping educate me on what that is. We were successful in getting bipartisan support for that Bill. The governor signed the Bill and if you're not from Maine you know that's a rare feat around here, now.

Bipartisanship and we got a signature, that just doesn't happen very often, but that was fairly early in the sessions.

The other Bill was a much more complicated and complex Bill which was to create the Municipal Gigabyte Broadband Access fund. I didn't come up with that title, the Reviser's Office who writes these Bills in legal language put that together, but the intent was very clear, to establish gigabyte systems with giving municipalities the opportunity to do that, and creating plain grants with funds to support that initiative and then implementation grants.

With the support of the Energy, Utilities and Technology Committee which I ended up on, and several of my friends of the legislature are here today. With their support we rewrote the Bill, spent a lot of time, we took to the House Floor, I gave this impassioned speech because I knew I needed to because there would be this resistance. After my speech there was dead silence in the House, and nobody spoke for or against it. But the good news was the vote was 123 to 0, \$6-million including the Bill.

Don't applaud yet—no, no, no don't do that. You don't understand Maine politics if you're applauding, nor did I really.

Monday morning I was informed by the Appropriations Committee that it would get zero dollars. I was informed Monday afternoon that Republican leadership in the Senate, which is the majority party in the Senate, and my party in fact, the Republican Party, was going to oppose the Bill. We spent six weeks tenaciously working with the State Senate and we ended up with a second major Amendment on the Bill which was really to save any components of it was to strip the funding. Even with stripping the funding it was questionable whether we could get the Bill to pass. The Bill passed and the story I really love about this is you have to put some funding in a Bill so you put four counts of \$500 each. You never really put the money in it, but it's a placeholder. When the Bill went to the Governor's Office, he literally took a pen and scratched out the \$500 and put in zero, four line item vetoes, which meant you have to have two thirds majority in both Houses to override four times.

We were successful in getting the override, by a small margin in the Senate, a very large margin bipartisan supporting again in the House.

At the end of the session, for those of you who know in Maine, we had a few Bills, the question is are the Bills or aren't they Bills, because the government didn't veto them but said he didn't have to. That's a long political story, and lo and behold wouldn't you know the Municipal Broadband Bill was one of the 19 that fell in that category. It wasn't until August that the State Supreme Court made the final determination that those 19 Bills were in fact law, so we do have the Bill now in Law, we have a placeholder. We're in the process of finding the resources to announce planning grants in the spring. I actually am pretty optimistic that we have found the support to do that, we announce later this fall.

It's about the political process of trying to get a public policy and when the legislature and the political parties and the governor are on different points, it's really difficult to establish public policy.

Chris Mitchell: Excellent. At every one of those stages when something seemed like progress, I would send an email that said "hey, how about that interview now?" You would always say "there's something else on the horizon."

It's been a long time but it's well thought and I'm extremely thrilled that the Bills passed and we'll fight over funding in future sessions.

We are going to go into the lightning round now, before I do that I want to say that we have five different experts up here, a variety of models. There are still more models that are not on the stage today and I want to echo Senator King's remarks that this really is an all hands on deck kind of thing to get America the kind of connectivity that everyone needs. These are not exhaustive, but I think there are some interesting ideas worth pushing into.

I'm going to ask my Panel to be very brief but I'd like to just talk about some political hurdles that you have encountered along the way in terms of these regional approaches. Is anyone really excited to jump out with the first hurdle? Monica?

Monica Webb: I would say we've had a state government that's been quite supportive, not that we haven't done our part. Whenever there was a hearing we would pack a Greyhound bus of people out to the State House to testify or get 600 letters to the committee that was overseeing the hearing. The State Legislature has actually been quite supportive. I would say the issue occurs at the local government level, you have varying levels of understanding of the technologies. You have a lot of sources of misinformation, even though we're talking about municipal broadband and the vast majority of us agree with the concept. You have people who are soapbox seekers, you have media who don't really understand the issue, you may have wireless providers that are convinced that's the future and we don't need fiber. You end up with a lot of misinformation floating around that you need to address in the media or have a really close relationship with your elected officials to make sure that everyone understands the technology.

Chris Mitchell: Let's actually push into that for a second and we'll come back to hurdles in a second, but right now let's address one of those. How do you deal with local government that needs to be better informed perhaps from a variety of viewpoints? Anyone on the Panel have a suggestion?

Elin Katz: From Connecticut we have 169 municipalities in our little state and no county government, so there's 169 different views and levels of understanding. One of the biggest hurdles we faced is the issue I started with is we're the most connected state in the country why we do anything. We did a listening tour, we've talked to municipal officials and done a lot of listening ourselves and I think that's the key is we started with no money, no authority to do anything. I'm an advocate, all I say I do is I listen and I talk to people, I don't have programs I administer. I think it's that process of listening and engaging and talking to people and then building your own network of champions. We've had great advocates in the State Senate, in the administration. Sabina Sitaru who is the CIO of Hartford is here and she's someone who really gets it, and she's sort of become the champion in her town. It's building that network I think, is the most important groundwork because if you try to impose something like this, top down this is good for you, eat your Wheatie's kind of thing. That's when you get a lot of pushback.

Chris Mitchell: Briana, you have in Islesboro a champion in the form of a local resident who is very savvy. What are your other islands doing to educate themselves on this issue?

Briana Warner: I think it's key what you just said, listening to people and what is your goal for the future of your community. That's going to be different for every community. I think for some communities that are represented in this room outside of Maine, even, are going to say it's economic development. That has not been the case for most of the communities in which we work,

but you have to listen. It was really interesting when I talked to Tilson Technology the first time, said we would like to replicate a little bit of what you did in Islesboro. They said you know what was so interesting when we had our community meetings everyone said the reason they wanted this is to bring back young people, and we had never heard that before. That's going to be very different from New Haven, and I think that's key. Once you learn what the community wants and what the goals are, one thing we've done in the Island Institute for 30 years, for lobster licenses or any number of other things we found have worked is the same that's true for broadband. You sit down and you have discussions and you find the people within those communities that are really interested in having those discussions. I think the person you mentioned from Islesboro. One time I called them and I said what does your day look like I'd like to connect with you about some stuff. He said "I have to go to the sewing circle and talk about broadband." It's really about going to every group within your community and figuring out what it is that they want, because there is always something that people can get from this, and then really trying to capitalize on that.

Fletcher Kittredge: In thinking about this in Maine, the first thing is we have Tilson Technology here. They are very good at doing that education essentially, and helping towns figure out where they are on the path and what they need. The needs of towns really differ, I was talking to Lyme, New Hampshire and I said to them, just because I was passing through and they had questions. I said, so you want to this for economic development reasons? They said "oh no, we don't want any economic development here." Which is very different from a Maine town, but okay. I said "you want to bring the young people back, right?" And they said "no, we already have all the young people we need." They had a very different set of needs that I would have expected in a Maine community where those are the two burning issues.

Tilson's a great resource, the other thing and now they're starting to do this and understand in many other states, I've heard they're doing it for Cambridge, Mass, among other places. But we also have support from the government, did a lot that was important that had nothing to do with funding. There was reform of what's called the Connect ME Authority, which gives the Connect ME the ability to really help and act as a central repository of information for cities and towns. There's a place you can call up now that can help you in the State Government and also there's been a lot of leadership from the Public Advocate's Office on regulation, and just acting as a technical resource to give a bipartisan very balanced view of what ought to be done.

Chris Mitchell: We're going to come back to hurdles in a second. Representative Higgins, were you getting in line there?

Norm Higgins: Obviously economic development where I live is really important and retaining our youth and creating vibrancy in the county, I can go on and on, but tomorrow morning I am going on my fifth presentation this month in my county on TeleHealth. That has really surfaced as being the number priority that the public seems to be able to get its head around. We're very rural and what we know is that seniors want to stay in their homes as long as possible. We know that we want to improve our healthcare and we can't bring specialists into our county, so the whole issue of TeleMedicine and a lot of different definitions and takes on that, but it's really become the driving motivator, probably because we're very old like myself. But it's become a real motivator and I don't think we should overlook that as a driving force.

Chris Mitchell: I want to say Next Century Cities and NTIA both have resources as well to help educate communities and I strongly encourage you to look for those. NTIA can draw a lot of lessons over BTOP and a lot of the work they've done recently, with Next Century Cities we've published a number of resources but we also can put you in touch with similar communities that have faced similar challenges. Please reach out if you're interested.

Going back to hurdles, I want to zero in on one to talk about on some of the incumbent reactions. In the United States the official United States Policy is supporting competition. This sounds great and everyone loves it. This is a hard business and a number of incumbents I think look at that and say "look it's hard enough for us to keep these good jobs as it is" and so they fight fiercely against the new competition in many cases, and I think that is not something that some of us will argue in the policy arena that we need more competition. But we need to recognize that this is a hard environment and so we see in some cases them responding forcefully particularly when local governments are getting involved or state governments. I'm curious how incumbents have reacted to some of these projects along the way or in the main State House?

Briana Warner: I will just make one point that maybe else has had a different experience with, but for the Island communities that we serve they are too small and the competitive model doesn't work, and I don't see it working any time in the near future. When you have an island of 100 people, there's a whole lot of incumbent reaction of "tough luck" you have some broadband. And similarly to what I said earlier, we wouldn't install faulty plumbing because at least it's something because then we would have to deal with that again in five years. How can we kind of engage the incumbents will be a really interesting conversation in the future as the report comes out and we work with communities to see how we can create some private public partnerships, how we might be able to incentivize some economic efficiency through regional approaches. But certainly I think if this is true for Maine and it's going to be true for many other states in the country that that model will not work for much of rural America and that's why this kind of forum is so important and why it's so important for policy makers to really think about how we can make that change.

Fletcher Kittredge: I'm not sure I understood Bri, but I would say I might strongly disagree with her. Monopolies are a bad thing for anyone other than the monopoly holder and I don't think a government monopoly, I haven't seen any reason to believe a government monopoly is any better and that's where the whole open access thing for us comes from. I'm old enough to realize what really matters in this stage in my life is ending up having done something that makes a difference, and with Islesboro they said "we don't think we want to be open access, we can't do that out here." We told them if we're going to be involved in the process we're going to sell this to our competitors because you just can't get good quality. Being a monopoly means you don't have to care and if you don't have to care you're always going to take the path of least resistance for you, and you're going to maximize your profits and you're going to minimize your quality. I just think that is human nature.

I think even in the rural areas, particularly when there's money involved, you need to drive the level of monopoly down the stack as far as you can to the physical access layer and rural people deserve good networks and they're not going to get them without competition.

Chris Mitchell: I want to just jump in here. I love having a little bit of disagreement on the Panel and I actually think there's not as much as we might have just heard. It's true in many cases in the United States the preferred model in the United States government has been encouraging facilities

base competition which I think is not going to work on small islands and that sort of thing, and that's where I think we hear there's another model for competition which is one in which you share the network assets.

Fletcher Kittredge: That's an accurate way to put it. Like I said, I think Bri might have been saying that.

Briana Warner: I completely agree with you. I'm saying the current model of saying only if it's economically viable.

Fletcher Kittredge: Tilson has convinced me, they've done a good analysis, dark fiber on an island was just not going to work. But Ethernet level, the next level up, sharing the equipment as well as sharing the fiber was the only way to do in a really rural place, but that means there's less ways for competitors to differentiate themselves and less attractive for them to go into the market.

Chris Mitchell: I'm going to ask Monica very quickly and I'm going to come back to Elin, but Monica, my understanding is Wired West for the most part, you do not face as much opposition. You're in an area where I think the incumbent operator has more or less washed it hands of you.

Monica Webb: If you go to the Verizon store you will not find any material that mentions DSL, it's all about wireless. You can get your broadband over wireless, your phone over wireless, everything, but they're really not interested in anything wired.

We're in our advocacy phase where we're talking about economic development, retaining youth, everyone agreed with that and everyone was on the same page and it was great, and the media were championing us. Everything was wonderful, but now that the money has been authorized, now that the plans are being made, and towns and cities are seeing the dollar signs, and there's one particular small select for example that is seeing how much money can be made for them by being the operator in each town. We're getting a lot of back draw opposition there.

That's something that's fairly easy to address but it is interesting to us that we didn't expect to have any competition because none of our towns have a lick of cable service. We really didn't expect to have that kind of cable monopoly funded disinformation campaign or price gouging or anything. We haven't seen any reaction for the exception of this one particular small select.

Chris Mitchell: Elin is going to take the microphone. If there is audience questions we have at least two microphones that I can see. If you want to stand at one of them I'll come to you after Elin finishes.

Elin Katz: We've had mixed reaction from the incumbents. There are those that realize that if we build a large open access network in an areas that's not within their territory there's going to be tremendous opportunity for them to provide state-of-the-art product over a great system that they didn't have to build. On the other hand we have also faced some significant opposition from Frontier, and I appreciate there are sponsors of this conference. I hasten to add that they're great partners in certain areas and they've working with us on the rural issue, but in New Haven in particular they have been very upset. Their headquarters that this CT gig project has been put forward, the head of their union has publically called for my resignation because we're taking his jobs.

He has now backed off of that and is just now saying I shouldn't be reappointed. It's getting pretty tense at points.

Chris Mitchell: I saw a hand, if you want to make your way to the microphone we would love to have a question.

Audience Question: It's sort of a question. Back in 2006 my brother-in-law and I decided to start an internet company on one of the many islands out here. We went to everybody, we had Fletcher down, we had talked to FairPoint, nobody would do it. The two of us took it upon ourselves along with a few investors, we went to Connect ME, and we've gotten a total of \$150,000 over the last few years and we started with 900 Mega-Hertz all around the island everywhere. Then recently the last few years we went with Cornerstone and they helped us to get DSL. We were really excited, we have 88% of our community, 350 people, have the internet now and at least 1 megabyte which is huge considering what it used to be. Now we're offering 100 megabytes coming over from Portland on a radio. We have partnered with everybody, Tilson, GWI, Axiom, Cornerstone, it's been a real conglomeration of partnership to provide this service to our community and we're thrilled to do it.

The first thing I want to say is the biggest problem is still there are people in the community who don't want our tax money going to it, who still feel it's unnecessary. Some don't even want it because it just adds more people to the island. We want the people. We want the opportunity, and a lot of people have moved to the community because of our service. We are thrilled that the Connect America grant has come through and FairPoint is going to be able to put a fiber in. We are thrilled about that. Instead of having it come by airways, or Tilson's microwave from one end of the island to the other end of the island so that we can spread it out on the FairPoint lines. We utilize every one of the lines, right now people are being turned down at the far end of the island because there are no lines to get there.

Chris Mitchell: I'm sorry. Can I ask you if you have a question, it's a terrific story but we're running out of time.

Audience Question: The question is, FairPoint is running the fiber, we are hoping to be able to get on that fiber. We're hoping that we'll be able to get our bandwidth through the fiber rather than over the airways. I wonder about the opportunity to be utilizing everybody together. I guess that's mainly my question. Thank you.

Chris Mitchell: I think that may be a challenging question for us to answer because a lot of times decisions are made by FairPoint and often times not even by local FairPoint officials who may have a differing opinion than the head office. Do we have any reactions to that?

Fletcher Kittredge: My first reaction is FairPoint may be more flexible than you might think and the answer may change over time, one. Two is, eventually you're going to need fiber on the island, and I know you do DSL now but think about the fact that that's just not going to cut it in the future and start thinking about how you might get into the fiber business. My guess is you're not going to find anybody else who's going to want to get in the fiber business in the island, FairPoint having fiber out there just means that they can reproduce what you've already done. The only way they can do better is if they put fiber around the island and I don't think they can make the business case for that, but they would know not me.

Chris Mitchell: FairPoint is certainly here so I hope that you'll have a chance to speak with them.

Fletcher Kittredge: You might find that there might be a way, particularly if it's a vehicle to show the good stuff they're doing. There might be a way to work with them and I would just keep on it, answers change over time.

Chris Mitchell: We're going to go through the last round here. I would like to ask everyone, I'm going to end with you Fletcher and I'm going to give you one minute at the end to talk about fiber versus wireless because this comes up all the time, and you're going to very briefly end it and we're going to see how succinct you can be on this.

Before then I would like to know what's coming next, next steps—Representative Higgins if you'd like to start please.

Norm Higgins: The legislation that we're looking at, Senator Geoffrey Gratwick from Bangor is leading this conversation, it's about what kind of legislation do we need to propose from a policy perspective to promote an expansion of access to TeleHealth home medicine, clinical usage, throughout Maine. We think that's probably the next major piece as well as finding obviously funding, and giving Connect ME the opportunity. They're doing public forums, I see the director here. Doing public forums and getting input about what long term plans should be. I think there's a lot going on and I think we have to be patient.

The last point I'd like to make is, the question was asked about the providers, obviously I get to know them very well in the legislative hallways. While we might disagree I think we've been respectful about that, and I don't think there should be providers versus, there ought to be can we find ways in which all of us can work together to move this agenda forward. Thank you.

Chris Mitchell: I would like to ask Bri with that same microphone. There's a perception sometimes that cities want to get into this, or in this case islands. Do you have a sense if the islands actually want to get in and compete with FairPoint. I'm assuming that's who the provider is, but whoever the existing provider is, or do they just simply want something better? How does that mindset work?

Briana Warner: It depends.

Chris Mitchell: That's honest.

Briana Warner: Right, which is a great answer. But I think when we're looking at small communities like this, some communities will never ever consider the amount of money that would be needed to build their own network. Some of these communities have a total town budget of \$400,000 a year. A public private partnership just like has been discussed is going to be the only option, how can we work with the incumbents to make it economically viable. But in other towns, yeah, I think Bev made a great point that they have taken it on their own to do their own thing. That's really inspirational and really provides a service to the community. I think what's next for us over the next year is seeing which communities want to take any action in working with them to pursue the action that they'd like to take and that's going to be different depending on the scale.

Chris Mitchell: Very briefly for our final three folks, Fletcher you know what's coming to you, but Monica and Elin. I'd like you to give us a sense of what's coming next with your projects please.

Monica Webb: We have had 24 communities that have voted, we still expect that there will be a few more that will be doing that. There are a number of things that have to be done from a legal perspective. We're drafting a new cooperative agreement because Wired West had 44 member towns, some of which parse the cable, there's a separate strategy for them. Some of the towns are not doing anything, a couple of the towns are doing their own thing. The towns that are moving forward with the regional network, drafting a new cooperative agreement for that.

Our financial model, I think it's probably the most exhaustively vetted, with the most input of any financial model for a municipal network in the country. We've been working on it for four years, we've had many, many national consultants that we've procured that state has procured. We've talked to operating networks, we've had them review the financial model. It's been built from the ground up, it's been refined. There is still a little bit of tweaking there, but largely the financial model is done, so now we're really going into working closely with the state on planning the network, making sure it as efficiently as possibly planned. Just to go back with Bri was saying about these communities...

Chris Mitchell: I'm sorry, I'm going to have to cut you off and because we've been friends for a long time I feel confident in doing that. We've run a little bit over and I want to just get a final comment from each of our last people.

Elin Katz: In addition to Hartford and/or New Haven being pretty close to starting to do the financial commitments to a fiber build, we also were creating in the last legislative session, the State Broadband Office was created within my office, which was a really positive thing. I think supporting and endorsing the work we've done thus far and we've gotten some money to do feasibility work. That's one of the main focuses in the next year, feasibility work at more of a state wide level, what's appropriate for different towns or regions based on their needs. We have folks on the public private model thus far but there's more than one model, there's going to be more than one solution I think, and we also really do. I agree with Doc Edelman, the incumbents are a big part of this and we need to figure out how can they fit into this, and we can find a role that they will be supportive of.

Chris Mitchell: We're going to end with this question and I'm going to say that if you can convince anyone in 30 seconds on this issue they're going to change their mind five minutes later. So let's just give the audience a chance of how to think about fiber and wireless and where they can go to learn more about the strengths of each.

Fletcher Kittredge: I'm only doing this because I have so little time. In the future all broadband networks will be wireless. They will be small cell and there will be tens and hundreds of thousands of transmitters in any given town. Think of a model where every utility pole has an antenna on it. Those antennas will all be fed by a fiber, so the answer is the future is both wireless and fiber and you're going to need both and the fiber is going to need to be ubiquitous.

Chris Mitchell: Where can people go to learn a little bit more about this ongoing discussion?

Fletcher Kittredge: I don't know.

Chris Mitchell: Alright, I'll just throw something out there then. Broadband Communities Magazine discusses these issues regularly. It's a free magazine, very easy to sign up for. I highly recommend it.

We're taking a short break. Thank you everyone.

END