

NTIA Conference 2015

Keynote Conversation

Susan Crawford: It's a joy to be on stage with both of you. You're both examples of tenacious, shining, relaxed leaders full of humor and openness. I want to start Senator with you. Just a year ago we were together at the launch of the first Gigabyte Network in Maine, in Rockport, Maine, very exciting day and you said that day "internet service in my opinion is exactly like water, it's exactly like electricity, it's a utility that is necessary in order for our country and our economy to flourish opportunity for choice or freedom", and since then the President and the administration seem to have been listening to you. Connect for us the link between high speed internet access and economic opportunity for people in Maine and rural areas in the country as a whole?

Angus S. King, Jr.: First I want to say it's appalling that somebody wrote down something that I said. I don't know if I've ever had that happen before. Let me start with a quick quote. Time and experience have verified to a demonstration the public utility of internal improvements. That the poorest and most thinly populated counties would be greatly benefited by the opening of good roads and in the clearing of navigable streams within their limits is what no person will deny. That was the first political brochure by a 23 year old candidate for the Illinois legislature in 1832. The candidate was Abraham Lincoln, the first political brochure, the first political statement he talked about was public infrastructure which is exactly what we're talking about today.

Everybody here realizes this, broadband is exactly like roads and water, by the way that's why it's a utility. Net neutrality should be a basic principle, but it's the basis of economic development and I think about this in very practical terms. Can you imagine a realtor leading a young couple through a home in a rural area and saying, this is a wonderful home here's the land and that's where the fence is and you own out to the stream, but by the way you can't ever water in this house, or you can't ever have broadband. The same thing goes for economics, particularly in rural areas broadband is the equalizer.

Man has always been geographically challenged, we're in the upper right hand corner of the map, there's nothing above us. Now we know that's called Canada, but you know, and by the way I have foreign policy credentials because I can see Canada from Maine. I wanted to clarify that.

It's a geographic equalizer and it gives us opportunities, and we're seeing it in Maine. I meet people all the time who live here and work other places. I was at an opening of a high tech manufacturing company in Lewiston on Friday; the investment is by a company in Italy. The broadband connection between those two, Lewiston and Casagrande in Italy, is essential to that relationship. It couldn't be more straightforward in terms of the economic value and therefore we've got to be sure everybody's connected at a reasonable rate, at a reasonable cost. We're getting to the point where we're getting the connections now we have to talk about competition and cost. I think that's going to be, in some ways, the next frontier.

Susan Crawford: To follow up on that, David Edelman has been a stalwart visionary for high speed internet access, leading from the west wing. It's been quite a year in telecommunications,

policies suddenly became chic. We're on the pages, we're central to the national conversation. Bring us up to date, David, there are challenges that remain. We're in this "Gutenberg Moment" when we're changing our modes of communication, but it takes a while for Gutenberg Moments to take hold and we're leaving a lot of people behind, competition isn't what it needs to be. What is the administration doing to move the ball forward?

R. David Edelman: Thanks for the question. Let me begin by saying it is a real pleasure to be up here. I don't know how many of you know this, but Susan had a version of my job at the beginning of the administration and that's when the absolute cream of the crop comes into the administration. Who do you really want doing a job, is her. Really so much of what you heard Larry talking about today and BTOP, so much of what you're going to hear about this afternoon is really built upon the work that you did, and for those of you who are Maine voters—I hate to say this, but talk about leadership on broadband, on every single issue from net neutrality to community broadband and beyond, Senator Angus King has really been in the forefront. Thank you for your leadership.

It has been a big year. It's been a big several years. Over the course of the last six years we have seen tremendous progress. I think it's easy to lose that. There has been for instance, \$160-billion in public and private investment in broadband in this country, during what was the worst economic downturn in a generation. No industries were investing and yet this country got it together and invested in broadband, in part because of Smart Tax policies we put into place and because of the Recovery Act we put into place.

As a result of the public side of it, 175 thousand miles of fiber were built and upgraded. That's major progress, you know because you oversaw a lot of it. That's a huge milestone in moving forward the idea of middle mile connectivity, but you're absolutely right even though tens of millions more Americans have probably doubled the internet speed that they had at the start of the beginning of this administration. They aren't paying any more, we do not have cause to be satisfied and the reason for that is pretty clear. As the president said when he was in Cedar Falls, Iowa, which was sort of a focal point for us this year, it was around State of the Union. He put it pretty clearly "broadband is no longer a luxury, it's a necessity." That really is the north star of our policies moving forward. We know that we don't have cause to be satisfied when two out of three schools do not have the broadband speeds that they need to deliver personalized learning or even to stream two videos in the same classroom. We know that we can't be satisfied when 51% of Americans in the bottom percentile of income don't have the internet at home, they don't have a way to get online that is reliable. Those are reasons that we know we have a lot more work to do.

Over the course of not just the last year but the last few years, we've put into motion some major programs designed to fill in those gaps. We announced the Connect Ed initiative that you've already heard about that set this ambitious goal of connecting 99% of schools within five years to high speed broadband and wireless. The public sector, the SEC, came through \$8-billion of funding to close that gap, and the private sector came through, too, with \$2-billion of technology that is presently in schools in use in all 50 states, millions of students are taking advantage of that. That's a major step forward. We announced earlier this summer the Connect Home initiative which is focused on low income communities, 28 communities coming together to focus on broadband affordability and making sure that the lowest income Americans had access to internet at an affordable lower than

retail rate, and that they're getting the digital literacy and the training that they need to make it meaningful. I think we're going to spend a lot of time today talking about how to make that internet meaningful.

I think the last initiative that we're going to spend more time this afternoon talking about as well is the Broadband Opportunity Council, which I will be the first to tell you is not the sexiest thing in the world.

Susan Crawford: Oh yes it is.

R. David Edelman: It could be as sexy as Susan. It is one of those issues that of all the things we announced in Cedar Falls, one that is going to absolutely have the longest term impact on broadband investment and competition is 40% of Americans still only have one provider that they can access for true broadband speeds, one provider, that's a monopoly, that's a problem.

The Broadband Opportunity Council is focused on empowering everyone around the country, particularly communities at figuring out how the federal government in many cases use its resources better to better allocate programs that we have on the books to focus on broadband, and where necessary to get out of the way, to roll back regulation when it's unnecessary or to make smarter use of federal legislation. I think one of the next steps in the next few months will be, what can we do to partner with communities in the Northeast, in Maine, across the country to help them replicate the same ideas that the NTIA and the Agriculture Department brought together from these 25 agencies in the Council Department.

Angus S. King, Jr.: I have a suggestion along the lines that you were talking about your report, it's a wonderful report, it just came out a week ago. If you want to get some broader readership, change the name to "Fifty Shades of Broadband".

Susan Crawford: Oh boy!

R. David Edelman: That would make it sexy.

Susan Crawford: Senator King, fantastic report, really a thing of beauty. Which of its recommendations resonated with you in lowering a lot of barriers, and there might be some secret gems in there that particularly spoke to you?

Angus S. King Jr.: First I think Dr. Johnson's admission about the dog that walked on his hind legs; the remarkable was not that it did it well but that it did it all. I think one of the most important things about the report is it's one of the most comprehensive cooperative efforts within the federal government I've ever seen. You had 25 agencies that really did cooperate. I commend it to you because it's very specific and I'll tell you, I guess I think in simple terms, I like the "dig once" idea. To have the Department of Transportation say if you're going to tear up our road put in conduit so you can later wire it up without having to dig up the road again. To have that be a part of federal highway policy which in turn opens up everything else at a much more economic basis? That's the kind of thing that I really liked in the report. It just is common sense but wouldn't happen other than with this kind of overall thinking. Lots of recommendations and of course the FCC wasn't an independent agency but there are a lot of hints to the FCC in there, which I suspect Tom Wheeler will pay attention to. Those

are the kinds of things that I found most striking is the practical things. Things like requiring HUD to be thinking about the wiring of building when they build the buildings, those kinds of practical things, because they all deal with the issue of cost. The myriad of federal programs, Agriculture grants, Department of Justice grants to police departments, all of which would be thinking about broadband as part of the solution of whatever the issue is. That's what I found most compelling about the report.

Susan Crawford: Just like a paperback where certain pages become tattered with use and reading to just carry this along. I was particularly excited about the new market tax credits element of this, bringing communities from weakness to strength making it possible to get access to Treasury funds for high speed internet access infrastructure. That's one of my favorites. Do you have any favorite children in this David?

R. David Edelman: Both you put the finger on the most important takeaway of this, which is this report brought together all of these agencies, in part because Larry Strickling ask them to come, and when Larry Strickling ask them to come they show up, 25 agencies. It's kind of remarkable. It was a big room and the message that everyone took from that was broadband is all hands on deck, this is no longer just an effort that is going to be housed at the Commerce Department or the Agriculture Department or in the Science Office of the White House. That broadband is now so core to the delivery of government service and the delivery on federal mission, whether it's from foreign policy and internet freedom, to economic development, to small businesses, to paying your taxes, to getting a job, to improving your skills, to education, every single federal agency has a role and a stake in getting broadband into the home and into folks' hands. I can't pick a favorite in part because to me I think the big contribution was getting everybody on the same page. Now our effort moving forward is to keep pushing that momentum and that enthusiasm that they brought to this report into execute it.

Susan Crawford: And Senator, in preparing for this interview I went back and looked at some of your clips recently and when the Pope came to town in D.C. you said I think that's the first time the Golden Rule has gotten a standing ovation from Congress. That was a great line, and I just want to touch on the bipartisan deregulatory nature of a lot of what's going on, this is not and should not be a partisan issue. Do you have any thoughts about that?

Angus S. King, Jr.: There are lots of things that shouldn't be partisan issues. For example, one of the bills as Larry mentioned, but I've been working on sort of deregulation of some health internet related issues with my cosponsor Deb Fisher, Republican from Nebraska.

U.S. Senate is essentially a rural buy in. I don't know if many people realize that but I haven't done the calculation lately, but something like 18 U.S. Senators out of 100 represent a majority of the citizens of the United States, and it's because New York has two senators, and Maine has two senators, and California has two senators, and Wyoming has two senators. The thrust of the body is rural and so that means that issues like this which really relate most directly to rural areas have great resonance in an institution like the senate because of its fundamentally rural orientation.

I see an opportunity, now unfortunately net neutrality seems to have taken on a partisan side, I think that's a mistake and I hope we cannot have that messed with, the decision that the FCC made last year. But I see a lot of opportunity for bipartisan cooperation. And by the way, we've all talked about the Recovery Act, the Stimulus Package, here in Maine it's important to remember that that would not

have passed without the votes of Olympia Snowe and Susan Collins. Literally they were the deciding votes in the U.S. Senate and it would not have passed, it took a lot of political courage for them to do that and we wouldn't have this 3-ring binder or any of those other benefits of the Stimulus Package involving broadband without that Bill. I have to give credit to my senior colleague.

Susan Crawford: And David Edelman, thank you for bringing us back to Cedar Falls, Iowa which was quite a moment. The president was so lucent talking about basketball, having a great time, and he said to the people in Cedar Falls who build a fiber network "you guys were like the captain in Jaws; you said you're going to need a bigger boat." They needed more capacity for that place. I was recently at Summerville Town Hall where the motto is "The Municipal Freedom, National Strength". David, comment on what the administration is doing particularly for municipalities across the country.

R. David Edelman: For those of you who aren't familiar with the Cedar Falls example, I would really encourage you to take a second and take a look at the president's remarks. Just Google the town website, they have really done some remarkable things. I would also add that if you had told me at the beginning of the administration that we would have sent the president as one of his five pre State of the Union announcements to lead up to that speech to do something on community broadband, I would have thought you were crazy. That was a really big moment; it was a big moment to highlight what a community can do. They didn't do this with federal grant money that suddenly descends from the heavens. Cedar Falls put together a broadband network that delivers speeds at 100 times the national average for a cost to the average citizen for what I pay for a fully loaded cable package. That is truly remarkable, and they have really seen dividends pay from that. They have attracted new investment, they have kept big companies, they are doing research and development. It's an incredible success story and what the president said in Cedar Falls was that he wants to deliver more stories like that around the country.

One of the first things he did was he called on the FCC to insure that there weren't undo barriers to communities who wanted to have this local choice. That it's not the right answer for everyone, but for communities that want to take the plunge to do this, to build a community fiber network, they should have the option to do so. There should be nothing unduly getting in the way of that. He called on the FCC to rollback some of the 19 state laws that created this unlevel playing field, and the FCC did it. The FCC actually acted on the one order that was before to reverse two of those state laws, so that's been important progress.

The NTIA has a major initiative for Broadband USA that is working with a number of communities who want to get their questions answered, who want to know how they can do this because the NTIA has the expertise through BTOP in setting up these sorts of programs. They're working with communities all over the country, and I think another big part of it is just continuing to get the word out. To continue to explain how communities can empower themselves, that they don't have to settle for the status quo. I would add that there is one other piece that they have to bear in mind which is just as community broadband solutions aren't always the answer, municipalities have an important role to play here and that's another part of the Broadband Opportunity Council's report that it highlights. I think moving forward in the next several months we're going to look at ways that we, the federal government, can help put together a sort of playbook, versions of which already exist through NTIA resources, but to help cities, municipalities, states, understand what are the regulatory barriers

that really make the difference in discouraging investment of incumbent ISP's. For the majority of Americans that really would be the solution. The more the communities can do when there are unnecessary regulatory barriers, the vast majority of which are at the sub-federal level, helping them understand that and to take that action can be a really important complementary way that we can deliver better broadband in communities which are underserved which are the majority of American communities.

Susan Crawford: Senator, there do seem to be many ways the communities and areas can do this, so we've got the Rockport, Alberose, South Portland Gigabyte Networks, but still 80% of people in Maine are unserved according to the Connect ME definition of high speed internet access which is 10 megabytes down 10 megabytes up, how are we going to reach them? What are the other ways to reach people?

Angus S. King, Jr.: I think number one there is no single answer. I have a good friend in Maine, Maury Lachance, who is the President of Thomas College up in Waterville who coined the term "there is rarely a silver bullet but there's often silver buckshot."

Isn't that wonderful? What that means to me is there are lots of solutions. So there's no single answer, it may be municipal. By the way we're going to have an accepting announcement later today which I won't spoil, about another town in Maine that's building a connection from our 3-ring binder and it's a town that's sort of middle mile and we have Rockport, South Portland, some really fantastic projects.

It has to be a combination and we shouldn't shy away from the fact that it has to be sometimes publically supported. We have a publically supported road system, we have publically supported canals and docks and airports, all of that, and the important part is this goes back a bit to history. All you have to do is go back to the 30s in rural electrification program. At that time electricity was available 95% in the cities of America and 50% in the rural areas, and the answer was from the electric companies "we can't afford to run lines to all those farms, it doesn't make economic sense."

Does that sound familiar?

Susan Crawford: Yes.

Angus S. King, Jr.: My favorite line from Mark Twain is "history doesn't always repeat itself but it usually rhymes." This is happening here, and so rural electrification, Franklin D. Roosevelt, talked about all kinds of ways, co-ops, public support to get electricity out to rural America that changed rural America. This to me is the same process. There's no one answer, I think municipalities have to be involved, states, federal government, private enterprise, partnerships, that's the way it's going to happen. We can't rely strictly though on the market because of the problems of dispersed populations.

Technology is going to be different, it may be fiber in some places, it may be wireless in other places, I think we're headed for a time, in fact I had a guy in my office the other day who's in the process of raising capital for 500 satellites in lower earth orbit to provide high speed internet to skip over all the wires, high speed internet to rural areas starting in places like Africa where they have no infrastructure at all, but also available to rural America. The technology is going to be there, there are

going to be a variety of technologies, too, and that's the danger we can't just say this is the single answer.

Susan Crawford: In the 30s, FDR took on those special interests with those private electrical companies, without his leadership this would not have happened, electrification in America, or not with the same speed.

Angus S. King, Jr.: I think the term they used was "that man in the White House."

Susan Crawford: Yes, it was a bitter fight and electricity became the leading domestic policy issue in the presidential elections of the day. Can you imagine high speed internet access having that kind of profile for national politics these days?

Angus S. King, Jr.: I think its close. I think as more and more people realize that the significance, and by the way internet, the technology of the internet has penetrated further and faster than any technology, radio, electricity, television and it's become more and more of a daily necessity. I think particularly in business, you can't do business without it. If you have an area that can't get broadband it's not going to develop economically, it just isn't, and so there is going to be a demand for it and I hope that will translate into a political demand.

Susan Crawford: And on the grand political scale, Mr. Edelman is part of the NEC staff, National Economic Council staff in the White House. There's also a lot of concern about the vanishing middle class and choices and opportunities in new forms of making a living for those people. Does this set of issues we're talking about today connect to economic opportunity there?

R. David Edelman: Absolutely. It does across the entire lifecycle of being in the middle, rising to and staying in the middle. From the very start having the opportunity of high speed broadband in the classroom means that you can be in a classroom that is less segregated. That you can learn at your own pace, that you have more of an opportunity to get ahead if you can get ahead and to not to fall behind so the teachers in their five minutes of individualized attention know exactly where to pinpoint where you're struggling, all the way up to getting new job skills. There are examples of digital tutors that can make it incredibly fast and effective for individuals to get technology job skills in particular that are one of the easiest ladders in the middle class, to get that Cisco certification, the Microsoft certification that can get you a high paying job all over the country, not just in Silicon Valley, not just in Chicago or New York but really all over because this need is all over the place.

Then leading up through even small businesses, I think we've seen a major shift in the last couple of years in the economic space of what having high speed broadband can mean even for the smallest businesses, because the ability to put your payroll online. The ability to take advantage of the efficiencies of the cloud, to store data, to not have to buy that server, not have to buy that hard drive, can make huge difference in the bottom line of the smallest companies. We absolutely see this as an economic driver. It's an economic driver obviously in the Silicon Valley sense of huge companies that are driving a lot of Wall Street growth, but even more importantly of smaller businesses all over the country that can benefit from it. It's core to our national economic development and that's why in the State of the Union, just alongside roads that are repaired and effective, the president said the fastest

internet, it's one of the ways that we can get ahead and stay ahead in terms of national competitiveness.

Angus S. King, Jr.: I want to jump in because you used one word about four times in your answer which was very appropriate and that word is "opportunity". For those of you who haven't run across it, if you haven't read anything by Malcolm Gladstone, you should. One of his books is called *Outliers*, it's a study of success and the conventional thinking about success is hard work, intelligence, initiative. His view is that the real key is opportunity. One of the examples he uses is Bill Gates, it was a long story but I'll abbreviate it. Bill Gates' 8th grade class in something like 1964 north of Seattle was the only middle school in the nation that had a computer. The moms got together and had a bake sale and instead of buying a new basketball rim they said let's get one of these things called a computer. This kid took to it, and he had the opportunity to learn this thing and then he went as a high school student worked at the University of Washington stealing computer time to do programming.

The point is if he hadn't had that opportunity he wouldn't have ever gone where he went. The question is how many kids in America would have this capacity for innovation and creativity but never had the opportunity to sit down in front of a device or sit down in front of a device connected to broadband.

There is a really deep thing going on here which is providing, and that's the secret of success of America is access, all people from all walks of life that we bring talent forth to drive the economy, and this is a way of allowing those people the opportunity. It's just essential to the idea of who we are.

Susan Crawford: David Edelman, what would you say following up on Senator King's last remarks to an inquisitive, curious, smart 10 year old who came to this meeting, and I know there are no ten year olds out here, came to this meeting in person because she couldn't watch the webcast, but really wants to have high speed internet access to do her homework in rural Maine. What are you going to say to that 10 year old?

R. David Edelman: I think that 10 year old should go to school because I think Maine is the first state in the nation to actually meet the president's Connect Ed goal. Congratulations on that!

That being said, this is the moment. I think the message is this is the moment that starting two years ago the president made this challenge that federal government has pulled out all the stops to make this happen, but it's only as good as the demand. I would send her back to talk to her parents; I would send her parents back to talk to the school administration. I would have them vote, voting matters, and elect leadership that sees this as a priority. I do think we are in a different place than we were two years ago.

Two years ago we were making the case for why broadband and digital devices in schools could possibly matter. That debate is mostly behind us and now it's a question of getting that access and getting the opportunity. It won't happen automatically, the resources are there, but they have to take advantage.

Angus S. King, Jr.: I know we're almost out of time but I have to add, we've got a really cool program that's going on in Maine and other parts of the country, it's called "check out the internet" and kids can go to their local library in rural areas and check out what amounts to a connector device

to take home to give them high speed access and to deal with this homework gap. Susan Corbett is here, she's worked on it in Washington County, one of our most rural areas. To answer your bipartisan question, Shelley Capito from West Virginia and I have got an amendment into the Education Bill to take this nationwide. It's still a pilot but it's a pretty cool one and there's availability for funding for it. That's the kind of thing that we have to do. It has to be, as I say, all kinds of different technology options.

Susan Crawford: Senator, the last word to you. The future belongs to those who give the next generation reason to help. Give us here the assembled crowd the charge for the rest of the day. What's our job?

Angus S. King, Jr.: The charge is to figure out and help us figure out both policy and technology in terms of how to solve this problem. I think we've made a good case and I think everybody's here because they already know what we all have been saying, how important it is or they wouldn't be here. And by the way, I know that many of you who are not from Maine, I wanted to welcome you to Maine and tell you that this evening no matter what time you quit, L.L. Bean is open, and you should travel to the most inappropriately named town in America, Freeport which is just north of here. We'd love to have you here, get out on the water and enjoy this beautiful Maine day.

The heart of this as I said before is opportunity. Opportunity and access is what's made America what it is, it's not something in the water or anything else, it's the fact that people no matter where they are, four guys that didn't finish college can invent the personal computer business. That's really what we want to do. The more people that have opportunity and access to the internet and the power that it brings, the more economic activity and satisfaction and personal growth will be available to all of our people, us and young people. This is a crucial moment in American history and I think we are turning the corner in a positive direction.

Susan Crawford: Please join me in thanking Senator King and David Edelman for their leadership and for being here today.

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