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JIM BALLER'S OPENING KEYNOTE ADDRESS

NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION AND ONECOMMUNITY

MID-COURSE WORKSHOP FOR BTOP AWARDEES

"ACCELERATING DEPLOYMENT AND DRIVING TOWARD SUSTAINABILITY"

October 5, 2011

Thanks very much, Tony [Anthony Wilhelm]. It has been great to work with NTIA and OneCommunity to develop this workshop, and I am deeply grateful for the opportunity to make this opening keynote.

This is a very special and extraordinarily important workshop. Why? Before answering, I'd like to pause for a few minutes to reflect on how far we've come in the last five years.

Five years ago, the FCC considered 200 kbps to be "broadband," and it assumed that if even a single business or resident in a zip code had access to broadband, then everyone else in the zip code also had access to broadband. Based on these flawed assumptions, the FCC repeatedly concluded in its Section 706 reports to Congress that the United States was making sufficient progress in deploying advanced telecommunications services and capabilities to all Americans.

Five years ago, the US was mired in broadband mediocrity. After inventing the Internet and leading the world in the 1990s, the US had fallen far behind the leading Asian and European nations in almost every internationally recognized standard of broadband success, including adoption, speed, price, and growth. Our only bright spot was that we led the world in number of broadband lines. But even that top ranking was being threatened by a surging China.

Five years ago, the FCC had no reliable information or maps showing where, from whom, at what speeds, and on what terms and conditions, broadband was available. All we had to go on were the unverifiable claims of broadband service providers.

Five years ago, America was snarled in bitter disputes about the kinds of data that should be collected, the nature and frequency of disclosures to the public, the extent to which broadband

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information should be treated as confidential business information, and the appropriate role of the federal government and the states in gathering and disseminating broadband information.

Five years ago, we sensed that low-income communities, senior citizens, and rural Americans were disproportionately unserved or underserved with broadband, but we did not have good data on the extent of the problem or the reasons for it.

Five years ago, most Americans, if they thought about broadband at all, simply viewed it as a faster way than dialup to exchange email and browse the Internet. Few Americans understood that broadband was becoming increasingly critical to just about everything we do at work, at home, and at play.

Five years ago, there was no consensus on the need for a comprehensive national broadband strategy, much less on the components of such a strategy or the policies required to implement them.

To the contrary, the established carriers vigorously opposed the idea, fearing that it would undercut their claims that all was well in American broadband. At the same time, at the opposite end of the political spectrum, public interest groups also opposed the idea, fearing that the major carriers would hijack the process and turn a national broadband strategy to their own ends.

Five years ago, there was very little support for federal investment in broadband deployment, adoption, and use. Not only would this have been inconsistent with America's traditional free-market values, but hardly anyone believed that the federal government or the states could manage such a program successfully.

In short, five years ago, broadband in America was dysfunctional in multiple ways. What is even worse, there was little reason to suppose that things would get better any time soon.

Now let's fast-forward to an event in Washington, DC, on December 2, 2008. At that event, the US Broadband Coalition, a large and diverse array of organizations of all kinds and sizes, called on president-elect Obama and the incoming Congress to develop a comprehensive National Broadband Strategy. The Call stressed the urgency of doing this, and it set forth a detailed framework for such a strategy. Of particular relevance for today is that the Call reflected wide support for significant federal investments in broadband deployment, adoption, and use.

Three months later, on February 17, 2009, Congress passed the American Recovery and Reconciliation Act. Not only did the Act require the FCC to develop a national broadband plan within a year, but, as you know, it also appropriated \$7.2 billion for federal broadband stimulus programs. As you also know, NTIA was to administer \$4.7 of these funds, and the Agriculture Department's Rural Utility Service was to administer \$2.5 billion.

Just think about the massive challenges that the Act posed for NTIA.

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First, unlike RUS, which had been in the stimulus business since the 1930s, NTIA had to start virtually from scratch. It had just a handful of individuals left over from the Commerce Department's former Technology Opportunities Program, and those individuals had no experience with the much larger \$4.7 billion program.

Furthermore, NTIA had to develop completely new rules, new guidelines, new forms, new evaluation criteria, new mechanisms for processing and evaluating bids, etc.

NTIA also had to make immediate decisions on a number of highly complex and controversial issues that had vexed the FCC for many years. Among these were how to define "open access," "unserved," and "underserved."

NTIA also had to strike a delicate balance among many worthy statutory goals. These included providing broadband access to in unserved areas; to improve broadband service to consumers in underserved areas; to support schools, libraries, medical and health care providers, community colleges and other anchor institutions; to improve access to, and use of broadband, by public safety agencies; and to stimulate demand for broadband, economic growth, and job creation.

What's more, NTIA had to meet strict statutory deadlines. It had to employ open, inclusive processes. And it had to do all these things in the face of intense opposition from opponents of the stimulus program, particularly from established carriers that were more than willing to accept federal funding, but only if they did not have to offer open access to their systems.

Incredibly, NTIA pulled it off. What an outstanding job Larry and his team did. Let's give them a well-deserved hand for this outstanding accomplishment. [Applause]

Now, let's fast forward again, this time to today. Before turning specifically to the BTOP program, let's examine what else is going on in broadband in the US today.

First, from the standpoint of global broadband rankings, we're doing a little better than five years ago, but not by very much.

According to the FCC's second annual report on international comparisons, released last May, we're now 12th in fixed broadband on a household basis and 14th in fixed broadband on a *per capita* basis, as compared to the other industrial nations in the Organisation for Economic Cooperation and Development.

In wireless, we're now 9th among the OECD nations.

Our average advertised download speed ranks a dismal 29th among the OECD nations.

Our average price ranks 13th at speeds below 2.5 Mbps and 24th at speeds exceeding 45 Mbps.

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We've also lost our lead in the number of fixed broadband lines. China, with which we will be competing for global leadership in many areas in this century, passed us in 2008 and now has 141 million broadband lines compared to our 89 million.

In fiber lines, China surged past Japan into first place in 2010, and it now has 32.48 million lines, compared to 20.7 million for Japan and 7.24 for the United States.

In the first three months of 2011, China accounted for 42 percent of the world's net additions in broadband subscribers, and much of this was FTTH and FTTB.

By 2015, the number of broadband users in China is expected to rise to about 250 million. Of these lines, the percentage of fiber connections is projected to be more than 43%, as compared to about 20% percent in 2011.

As Pyramid Research concludes in a report released yesterday, "Though demand for high speed in China isn't there yet, when it is, it will spread like wildfire."

Will demand for ultra-high-speed broadband connectivity in fact materialize over the next few years? I certainly think so, particularly as video applications of all kinds grow increasingly common. This includes not just streamed movies and TV programs, but also user-created videos, particularly by young people, and videos incorporated into educational, health care, and other applications.

Cisco's research certainly supports this conclusion. Cisco projects that Internet traffic will quadruple to nearly 1000 exabytes by 2050, driven by a 50% increase in online video.

In short, if the US is going to remain a great nation, we've got to get moving quickly. Do we have it in us to do that? I'm optimistic, particularly in view of a number of important developments in the US in the last two years.

For one thing, we've got Lev Gonick's gigabit pilot project right here at Case Western Reserve University in Cleveland to help show the way.

Google is now building out its pilot program in Kansas City, Kansas and Missouri, after its Fiber for Communities program attracted proposals from more than 1100 communities.

Chattanooga, Tennessee, has become the nation's first gigabit city, and several others are capable of doing so as well.

Blair Levin has launched the Gig-U initiative, which seeks to bring gigabit connectivity to 37 university communities across the nation.

The White House has launched a number of initiatives that may help drive deployment of highcapacity broadband, including the soon-to-be expanded initiative called Project US Ignite.

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In the wireless area, we've seen 3G and 4G wireless broadband roll out rapidly across America, driven by an explosion of iPhone and Android smartphones, iPads, and other devices, as well as hundreds of thousands of applications to take advantage of them.

We're also seeing broadband play increasingly important roles in education, health care, energy efficiency and security, transportation, environmental protection, economic development and job creation, and in many, many other areas.

In short, as a result of all these developments, America has begun to turn a corner. No longer is broadband an arcane topic that only a select few can understand. For more and more Americans, especially our young people, broadband has become indispensable, at higher and higher bandwidths. This trend will surely continue.

And that at last brings me to the BTOP program. I cannot stress enough how important the success of the BTOP program is to America as a whole and to each of us individually.

To be sure, \$4 billion is not nearly enough to make the US the world's greatest broadband nation. But \$4 billion can do a tremendous amount of good. This is not just true of the millions of direct beneficiaries of current BTOP projects. From these projects we will also learn many invaluable lessons that will benefit countless public and private broadband initiatives in the future.

Furthermore, by focusing on open-access middle-mile networks that connect Community Anchor Institutions, the BTOP program is driving fiber infrastructure deeper and deeper into communities, making it easier for last-mile providers to reach households and other end-users.

By supporting Public Computer Centers and Sustainable Broadband Adoption projects, the BTOP program is significantly enhancing the ability of thousands of Americans to use the Internet successfully.

And by supporting state mapping and planning initiatives, the BTOP program will help ensure that our broadband efforts are well considered and coordinated across geographic, demographic, and other borders.

As a result of all the work that communities, companies, government entities and others have done in addressing the National Broadband Plan, the Broadband Stimulus Program, the Google Fiber project, and many other initiatives, our understanding of broadband and all that it can mean for us has leaped ahead at least five years in the last two years. I am confident that we can make at least as much progress, if not more, in the next two years.

So, my friends and colleagues, let's make maximum productive use of our time together over the next three days. Let's be aggressive about meeting, sharing experiences, and learning from each other.

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Based on my own experience with numerous broadband stimulus projects across the country, I would guess that many of you are searching for ways to solve unanticipated challenges and are eager to find ways to make your projects more sustainable. Well, that's why we're here.

Shortly after the Bay of Pigs invasion in 1961, President John F. Kennedy invoked the ancient Chinese aphorism that "Victory has a hundred fathers and defeat is an orphan." This was apparently intended as a dig at those who left him holding the bag after the invasion failed.

I'd prefer to emphasize the other side – that making the BTOP as successful as possible will take the best collective efforts of all of us. We're in this together, so let's get on with the task.