Update on the National Broadband Plan for "Broadband Everywhere"

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Broadband is the great infrastructure challenge of the early 21st century.

Like electricity a century ago, broadband is a foundation for economic growth, job creation, global competitiveness and a better way of life. It is enabling entire new industries and unlocking vast new possibilities for existing ones. It is changing how we educate children, deliver health care, manage energy, ensure public safety, engage government, and access, organize and disseminate knowledge.

Fueled primarily by private sector investment and innovation, the American broadband ecosystem has evolved rapidly. The number of Americans who have broadband at home has grown from eight million in 2000 to nearly 200 million last year. Increasingly capable fixed and mobile networks allow Americans to access a growing number of valuable applications through innovative devices.

But broadband in America is not all it needs to be...

—excerpt from the introduction to the Executive Summary, National Broadband Plan, March 2010.

In early 2009, Congress directed the Federal Communications Commission to develop a plan that would make broadband communications available to all Americans. This was to be long term plan, combining services, equipment, content and applications aspects. In response to this legislation, the FCC developed an initial plan that would begin the process.

Among the many details to be addressed, the FCC stated that one goal was to support the plan with 300 MHz of spectrum within five years, reaching a total of 500 MHz in 10 years. Table 1 shows the first portion of the spectrum reassignment plan, identifying where the initial 300 MHz will come from. The necessary work on rules changes and spectrum auctions is proceeding roughly on schedule, but some individual areas are likely to be delayed as affected services argue for changes in the specific reassignments as well as the procedures.

What is not in this schedule is an estimate of the time required for broadband providers to build the necessary infrastructure and begin providing services to customers who are presently unserved or under-served.

Band	Key Actions and Timing	Max. MHz Made Available for Terrestrial Broadband
WCS	2010--Order	20
AWS 2/3	2010--Order 2011--Auction	60
D Block	2010--Order 2011--Auction	10
Mobile Satellite Services (MSS)	2010--NPRM 2010--L-Band and Big Leo Orders 2011--S-Band Order	90
Broadcast TV	2010--NPRM 2011--Order 2012/13--Auction 2015--Band transition	120
Total		**300**

Table 1 · Spectrum development schedule for the National Broadband Plan. (From FCC Broadband Action Agenda, April 2010.)

"One Year Later" Update of March 2011

Excerpts from a March 16, 2011 speech by FCC Chairman Julius Genachowski provide insight into the reasoning behind the broadband plan:

"For starters, when this endeavor began, too many Americans didn't know what broadband was.

Too many Americans, young and old, too many companies small and even large, didn't understand the benefits of being connected—the benefits to finding and landing jobs, to expanding businesses and lowering costs, to the health care of our families, to the education of our kids.

Even at the FCC, in the years prior to 2009, a majority concluded annually that everything was fine—that our mission was accomplished—that broadband was moving forward in the US in a "reasonable and timely fashion," in the words of the Communications Act.

But the facts—many updated and further developed in connection with our Broadband Plan—told a different story. Up to twenty-four million Americans simply couldn't—and still can't—get broadband where they live. And nearly one hundred million Americans who could have broadband haven't signed up. That's a U.S. broadband adoption rate of 67%, which compares to more than 90%

for South Korea.

What's worse, our capacity for competitiveness and innovation was lagging behind the top nations in the world, and our rate of improvements in key competitiveness and innovation metrics was at rock bottom for major industrial countries." ...

"So, in just one year, broadband has now become part of the vernacular. Not just a topic for us geeks at the FCC, but in the national bloodstream.

It's being talked about in businesses, small and large, which recognize that broadband helps them reach new markets, improve productivity, and compete globally.

People around the country increasingly see that broadband can enable distance learning and digital textbooks that can improve education; remote diagnostics to enhance health care, and smart grid technology to reduce energy costs and harmful emissions." ...

At the same event, Jamie Barnett, Chief of the Public Safety and Homeland Security Bureau at the FCC, added:

"Last year, the Federal Communications Commission developed and released the National Broadband Plan to ensure that every American has 'access to broadband capability.' A section of the Plan included a detailed strategy for achieving maximum use of broadband to advance public safety communications. One year later, the Public Safety and Homeland Security Bureau has been working hard promoting public safety wireless broadband communications, encouraging the development and deployment of Next Generation 911 networks, and protecting and preserving critical broadband infrastructure. March 17, 2011 marks the one year anniversary of the Plan and we wanted to share with you the specifics of what we have accomplished and how we plan to further enhance broadband communications for public safety." ...

"Today, approximately 70% of all 911 calls are made from mobile hand-held devices. However, most 911 call centers are not currently equipped to receive text messages, e-mail, video, or photos—dominant modes of communications for many mobile users.

To address this problem, we have initiated a Notice of Inquiry to explore how to bring Next Generation 911 services to consumers and first responders that will enable the public to obtain emergency assistance by means of advanced communications technologies beyond traditional voice-centric devices. Although location accuracy requirements were not part of the Plan, we have also adopted an Order that requires wireless carriers to provide data on each 911 call made on mobile devices which will improve the ability of public safety personnel to assess the accuracy of location information to further support public safety. This will help emergency response personnel reach you sooner in the event of an emergency."

A one-year status report shown on the government's web site for this plan can be found at www.broadband.gov. This report includes a checklist of actions on various plan milestones. Examination of the report indicates that progress in most areas of activity is on, or close to, the previously published schedule.

Summary Comments

Although the National Broadband Plan has not been widely covered by news media since its highly-touted introduction, its development is progressing very nearly on schedule. Wireless technology is at the core of this endeavor, with fiber optic and wireline (DSL/ADSL) technologies included as well. The government is acting upon the vision of universal broadband service, with an importance that requires effort and encouragement similar to the rural electric service and telephone service initiatives of the early 20th Century.