

**Before the  
Federal Communications Commission  
Washington, DC 20554**

In the Matter of	)	
	)	
Inquiry Concerning the Deployment of	)	
Advanced Telecommunications	)	
Capability to All Americans in a	)	GN Docket No. 07-45
Reasonable and Timely Fashion,	)	
and Possible Steps to Accelerate Such	)	
Deployment Pursuant to Section 706 of the	)	
Telecommunications Act of 1996	)	

**COMMENTS OF  
THE ALLIANCE FOR PUBLIC TECHNOLOGY**

**I. Introduction**

The Alliance for Public Technology (APT) welcomes the opportunity to provide comments on the critical issues regarding broadband deployment raised in the Commission’s 706 Notice of Inquiry. APT is a non-profit, membership organization based in Washington, D.C. concerned with fostering affordable and useable access to information and communications services and technologies for all people. APT is composed of public interest groups and individuals, some of whom historically have been left out of the Information Age, including the elderly, minorities, low income groups and people with disabilities. APT’s mission is to promote deployment of advanced telecommunications services in order to enable improved and more affordable health care for all citizens, expand educational opportunities for lifelong learning, enable people with disabilities to be more independent and productive members of our society, create opportunities for jobs and economic advancement, make government more responsive to all citizens, and simplify access to technology. In addition, we can reduce urban traffic

congestion, highway construction, pollution, and carbon emissions by encouraging the deployment of high speed residential broadband services capable of supporting telework and the creation of business tools that minimize commuting and travel, while enhancing productivity, efficiency, and e-commerce.

APT is the leading consumer group focused exclusively on broadband and advanced telecommunications technologies. APT was the driving force behind the concept of Section 706. APT also filed a petition with the Commission in 1998 that resulted in the first 706 inquiry and has submitted comments in each subsequent 706 inquiry urging the Commission to use its authority to encourage investment in and deployment of advanced telecommunications capabilities. In this important proceeding, APT recommends:

- A new, evolving definition for advanced telecommunications capability;
- Adoption of new, detailed broadband assessment mechanisms;
- Strategies for accelerating deployment where it is not reasonable and timely; and
- Collaboration with Congressional and state leaders to help accelerate deployment.

In 2004, President George W. Bush proclaimed, "We ought to have universal, affordable access to broadband technology by the year 2007."<sup>1</sup> Unfortunately, this goal will not be reached. The Commission should utilize its regulatory authority under Section 706 to remedy that failure and take a significant step towards making telecommunications service ubiquitous, affordable and accessible to all.

## **II. What is "Advanced Telecommunications Capability?"**

*APT supports a new, evolving definition for advanced telecommunications capability.*

---

<sup>1</sup> White House Press Release, "Promoting Innovation and Competitiveness," 2004.

The Commission's current definition for broadband services, fixed at 200 kilobits per second (Kbps) upstream and downstream, has outlived its usefulness. Broadband speeds evolve rapidly. Fiber to the home deployments are offering upwards of 50 megabits per second (Mbps). Internet2, a consortium of colleges and universities working with government and industry to develop the next generation of Internet services, is planning to build a network with a capacity of 100 gigabits (Gbps).<sup>2</sup> A cable executive recently demonstrated a modem that could transmit data at 150 Mbps.<sup>3</sup>

The Alliance has consistently argued that the definition of advanced services must be dynamic and evolve with changes in technology. APT has and will always advocate for high capacity communications networks in both directions, not for entertainment and shopping, but for life-enhancing applications, such as education and training, social services and health care.<sup>4</sup> For example, real-time video sign language communication is providing the deaf and hard-of-hearing community with new opportunities for greater independence, integration and privacy. Using broadband connections, patients and providers can interact in a variety of ways, expanding the reach of urban specialists, improving the quality of care, eliminating the need for extensive travel, reducing costs and saving lives. Therefore, APT supports the Commission in a more aggressive approach to defining advanced telecommunications services and thereby encouraging innovation.

The Telecommunications Act of 1996, and Section 706 in particular, recognized the evolving nature of technology and did not limit the definition of broadband to any

---

<sup>2</sup> Associated Press, Anick Jesdanun, *Researches Break Internet Speed Record*, April 24, 2007.

<sup>3</sup> [http://www.upi.com/NewsTrack/Business/2007/05/09/new\\_modem\\_100\\_times\\_faster\\_than\\_dsl/](http://www.upi.com/NewsTrack/Business/2007/05/09/new_modem_100_times_faster_than_dsl/)

<sup>4</sup> Alliance for Public Technology, April 4, 2000, Reply Comments to the FCC, CC Docket No.98-146, pg. 1.

speed or technology. With that in mind, the Commission should look at the entirety of the broadband marketplace to craft a definition that fits today's reality and can evolve quickly as technology moves forward. APT recommends that the FCC adopt a goal to have at least 50 percent of our citizens, regardless of their location or demographic status, connected to broadband services with 10 Mbps downstream and 1 Mbps upstream capacity by the end of 2010. As technology improves and consumer demand evolves, we should adjust the speed and percentage of penetration targets upward.<sup>5</sup>

### **III. Is Advanced Telecommunications Capability Being Deployed to All Americans?**

*The Commission should adopt new detailed broadband assessment mechanisms.*

It is insufficient to say, as the Commission has in its previous 706 and bi-annual broadband deployment reports, that deployment has successfully occurred if a zip code has at least one subscriber of broadband service with speeds of at least 200 Kbps second. This narrow measurement does not offer the Commission, Congress, or the American people an accurate picture of broadband deployment. The Commission should seek more granular deployment statistics.

The current FCC's current data collection is also completely inadequate to assess facilities based competition in the deployment of residential advanced telecommunications services. The FCC should be mandated to collect information on loop type including traditional copper, coax, hybrid fiber-coax, hybrid fiber-copper, and fiber to the home (FTTH), as well as loop technology, such as ADSL and cable modem. The FCC should be able to identify by zip code the relevant number of homes and small

---

<sup>5</sup> *Achieving Universal Broadband: Policies for Stimulating Deployment and Demand*, Alliance for Public Technology, February 2007, pg. 25.

businesses served and passed by each loop type and served by each loop technology in order to assess the prospects for meaningful facilities based competition and high speed broadband deployment.

APT supports the FCC's tiered measurement of broadband speeds with additional categories from 200 Kbps to 1 Mbps and 1Mbps to 3 Mbps and moving upward into the multi-megabyte speeds now available from fiber, DSL, cable and modem. Since the 200 Kbps figure does not likely represent the actual broadband speeds enjoyed by today's subscribers, it is important to obtain specific information about how many Americans have access to services at 1, 5, 10 or more megabits per second in each zip code.

Once the Commission establishes new measurements, it should work with federal, state, and local officials to empower communities to create, from the bottom up, detailed maps of broadband availability. There is already an extraordinarily successful model of broadband mapping that led to a useful analysis of availability and customized solutions resulting in accelerated deployment to underserved areas. ConnectKentucky is a public-private partnership that worked with broadband providers across the state to assemble an extremely accurate map of availability. After identifying and analyzing the gaps, ConnectKentucky approached the communities that were found to have limited or no broadband service and worked with the local populations to identify demand and need. This information was shared with broadband providers who were then able to make informed business decisions about serving the areas where demand did exist. As a result of this process, 92 percent of Kentucky households can obtain broadband service today,

and Connect Kentucky believes that every single household will have access to some form of broadband by the end of 2007.<sup>6</sup>

Using the Connect Kentucky model, the Commission should perform a series of “case studies” across the country to identify deployment patterns in urban, suburban, and rural communities.

APT urges the Commission to seek the most comprehensive data possible so that broadband deployment solutions can be effectively tailored to serve the communities with the greatest need. One possible solution would be for the Commission to delegate the nationwide mapping responsibility to the National Telecommunications and Information Administration (NTIA). The NTIA could develop a broadband map to view broadband data at the local level. This map could easily be developed with an open-source model, “whereby participating broadband consumers across the country could visit a website to test the speed of their Internet connection and voluntarily enter their zip code and monthly service price.”<sup>7</sup> Using mapping technology, like Google maps, could help generate expansive and accurate nationwide data on broadband deployment.

#### **IV. Is Deployment Reasonable and Timely?**

*Deployment is progressing, but it is not reasonable and timely in some parts of the country.*

Broadband deployment is increasing and many communities now enjoy a choice among several different broadband service providers. APT applauds this success and

---

<sup>6</sup> Connect Kentucky, *Broadband Adoption and Barriers: Results & Analysis from the ConnectKentucky Technology Assessment Study*, [www.connectkentucky.com](http://www.connectkentucky.com)

<sup>7</sup> *Assessing Broadband in America: OECD and ITIF Broadband Rankings*, Information Technology and Innovation Foundation, April 2007, pg. 8.

commends the Commission for its track record of removing regulatory barriers to deployment. However, there are areas left behind that should be the focus of Commission broadband policy going forward.

While as of June 2006 the Commission reported that the total number of high speed lines (200 Kbps in one direction) is 64 million, there are still large parts of the country where there are few or no broadband providers. These gaps are illustrated in the map of the United States (High Speed Providers by 5 Digit Geographical Zip Code) contained in the Commissions January 2007 report *High Speed Services for Internet Access*.<sup>8</sup> There are large portions of states such as Maine and Alaska, and smaller areas in many other states, where there are no providers at all. These are primarily rural areas. Only 17 percent of adults in rural areas subscribe to broadband compared to 31 percent in urban and 30 percent in suburban areas.<sup>9</sup> In addition, only 15.8 percent of farm households have adopted broadband.<sup>10</sup>

According to an April 2007 broadband study released by the Organization of Economic Cooperation and Development (OECD), the United States now ranks 15<sup>th</sup> out of the 30 member nations in per capita broadband use – down from 12<sup>th</sup> place just six months ago and dropping from fourth place in 2001.<sup>11</sup> While there are some flaws with these types of measurements, it is important for the Commission to understand how the United States is losing ground internationally.

---

<sup>8</sup> [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-270128A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-270128A1.pdf)

<sup>9</sup> Government Accounting Office, Telecommunications: Broadband deployment is Extensive throughout the United States, but It is Difficult to Assess the Extent of the Deployment Gaps in Rural Areas, May 2006, GAO-06-426 (GAO Broadband Report).

<sup>10</sup> National Agriculture Statistic Service, Agricultural Statistics Board, U.S. Department of Agriculture, *Farm Computer Usage and Ownership*, July 29, 2005.

<sup>11</sup> Organization for Economic Cooperation and Development, *OECD Broadband Statistics to December 2006*, [http://www.oecd.org/document/7/0,2340,en\\_2649\\_34223\\_38446855\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/7/0,2340,en_2649_34223_38446855_1_1_1_1,00.html)

When we look abroad to see how our competitors are advancing in broadband speeds, we see that Japan has transmission speeds of 100 Mbps through Fiber to the Home.<sup>12</sup> Due to their national pro-investment broadband policy, Japan has surpassed America in speed *and* price of broadband. The Japanese have 8.5 times the speed at 1/12 of the cost.<sup>13</sup> In 2005, 74 million out of 86 million Japanese subscribers had wireless broadband.<sup>14</sup> The Japanese example demonstrates how national recognition of a need for broadband, along with acceptance of an evolving, high-speed definition can stimulate demand and lead to a national policy for broadband.

While there have been great strides in some areas of the U.S., reliance on the marketplace alone will not bring advanced telecommunications capabilities to all Americans. Simply relying on the marketplace to answer our broadband needs has failed to produce the benefits that are being more widely achieved in other countries.<sup>15</sup> Therefore, policies must be implemented that help those communities that the marketplace leaves behind, such as rural, minority, low-income populations and people with disabilities.

The Commission should build upon its deployment policy successes and focus on these underserved communities. Targeted solutions, and not broad regulatory mandates, are the ideal policy measures for serving these communities.

## **V. What Actions Can Accelerate Deployment?**

---

<sup>12</sup> *SpeedMatters*, Communications Workers of America, October 2006, pg. 16.

<sup>13</sup> *SpeedMatters*, Communications Workers of America, October 2006, pg. 11.

<sup>14</sup> Kenji Kushida, Japan's Telecommunications Regime Shift: Understanding Japan's Potential Resurgence, Brie Working Paper 170, November 30, 2005.

<sup>15</sup> *Achieving Universal Broadband: Policies for Stimulating Deployment and Demand*, Alliance for Public Technology, February 2007, pg. 17.

*The Commission, working with Congressional and state leaders, can help accelerate deployment.*

The Commission has taken many steps to increase deployment and remove barriers, including eliminating unbundling obligations and reforming video franchising rules. APT supported these and other Commission actions. The 706 proceeding is an opportunity for the Commission to continue its good work and adopt or promote policies that continue to facilitate the deployment of broadband networks across the country.

APT's February 2007 report, *Achieving Universal Broadband: Policies for Stimulating Deployment and Demand*, outlined several clear steps the Commission should endorse, promote, and/or implement where appropriate. The recommendations include:

**A. Establish clear national goals for broadband deployment.**

The Commission should set a goal to have at least 50 percent of the U.S. population, regardless of their location or demographic status, connected to broadband services with 10 Mbps downstream and 1 Mbps upstream capacity by the end of 2010.

**B. Continue to foster private investment and marketplace competition.**

The Commission should continue to maximize incentives for private investments in broadband services and promote marketplace competition, by (1) streamlining the video franchising process, (2) encouraging the provision of wireless broadband services by making additional licensed (particularly the 700 MHz band) and unlicensed spectrum available, (3) promoting the availability of affordable satellite broadband services, (4) facilitating broadband over powerline ("BPL") technologies, and (5) allowing municipalities or other government entities to provide broadband services, directly or in

partnership with private entities, so long as the government entity does not have a competitive advantage over private providers.

**C. Require Universal Service Fund recipients to offer broadband services.**

APT supports updating the collection and distribution mechanisms of the Universal Service Fund for the broadband era. The Fund needs new revenues and eligible providers should receive funds dedicated explicitly to broadband deployment.

**D. Provide tax incentives, low interest loans, and grants for broadband deployment.**

The Commission should urge Congress to create additional incentives for providers, particularly in underserved areas. For example, the Rural Utilities Service (RUS) broadband grant and loan program should be improved. Currently, the RUS implements two programs specifically targeted at providing assistance for broadband deployment in rural areas: the Rural Broadband Access Loan and Loan Guarantee Program and Community Connect Broadband Grants. The process should be open to additional providers. A new program (similar to RUS) should be created to provide assistance for broadband deployment in unserved and underserved urban areas.

**E. Utilize non-traditional, non-telecommunications programs more effectively.**

The Commission should work with Congress and other federal and state agencies to identify opportunities to promote broadband deployment through additional programs. For example, One Economy, a national non-profit based in Washington, D.C, worked with 42 states to amend the Low-Income Housing Tax Credits (LIHTC) to ensure that broadband networks were considered universal design standards with any LIHTC

projects. Further, the reforms ensured that the monthly recurring cost of the broadband service itself was an eligible operating expense and should be rolled into the housing operating expense as is done for such functions as security, landscaping, and garbage collection. The net effect of this was that in 2005 alone, 200,000 low-income Americans got broadband in their homes and, because the tax credits are awarded annually, this adds approximately 200,000 new people each year who otherwise could not afford broadband in their homes.

#### **F. Ensure Accessibility.**

Assure that All Americans can benefit from broadband deployment and thus will adopt the technology when made available by requiring all broadband technologies and services to be accessible to people with disabilities and those who are monolingual or linguistically isolated.

APT urges the Commission to review these and other suggestions in the February 2007 report (found at [www.apt.org](http://www.apt.org)) and to explore innovative policies that can rapidly increase the pace of broadband deployment.

## **VI. Conclusion**

APT commends the Commission for its commitment to broadband deployment and urges immediate action to continue the progress so that all Americans can enjoy the benefits of advanced telecommunications technology. The Commission should update its broadband definition and collect better data both on the demographic aspects of deployment and the types of services/speeds currently obtained by Americans. There are numerous policy opportunities for the Commission to exercise its authority under Section

706 and as broadband becomes indispensable to more Americans, the Commission must do all within its power to make sure that none are left behind.

Respectfully submitted,

/s/

Robert D. Atkinson, Chair  
Public Policy Committee

Alliance for Public Technology  
919 Eighteenth Street, NW  
Suite 900  
Washington, DC 20006

May 16, 2007