



January 27, 2009

Marlene H. Dortch
Federal Communications Commission
445 12th Street SW
Washington DC 20554

Re: *A National Broadband Plan for Our Future*, GN Docket Nos. 09-47, 09-51, 09-137

Dear Ms. Dortch:

As the Commission enters its final phase in the development of a National Broadband Plan (Plan), the Telecommunications Industry Association (TIA) takes this opportunity to reiterate our organization's positions on a variety of issues raised by the Commission in this proceeding. Specifically, TIA has addressed broadband deployment and adoption; spectrum allocation and management; universal service reform; accessibility; international comparison; research and development; public safety; and energy and the environment. We also take this opportunity to comment on video device innovation.

TIA is the leading trade association for the ICT industry. Its 500 member companies manufacture or supply the products and services used in the provision of broadband and broadband-enabled applications. TIA members' products and services empower communications in every industry and market, including health care, education, security, public safety, transportation, government, the military, the environment and entertainment and are directly impacted by the potential recommendations in the Commission's National Broadband Plan.

As evidenced by the thousands of filings submitted in response to the Commission's request for comments on the *Notice of Inquiry*, Public Notices, and the Workshops released in conjunction with the Plan, its development is clearly considered an essential element to American economic recovery and many facets of American life. The Plan should be "focused, practical, and achievable" in order to ensure broadband deployment and adoption for all Americans. To achieve this goal, TIA strongly urges the Commission to incorporate the policy recommendations outlined below into the Plan.

Broadband Deployment and Adoption

A National Broadband Plan should stimulate investment, innovation, and the promotion of next-generation broadband deployment and adoption. To ensure continued investment in broadband networks, the Plan must encourage regulation that is modest and predictable through an exclusively federal regulatory regime. The Commission should approach

“consumer protection” mandates through generally applicable laws, which, in concert with competition in an increasingly crowded broadband market, have ably safeguarded consumer interests.

The Commission’s Plan must address key barriers to broadband adoption. Demand-side efforts should include, at a minimum, grants for programs that support adoption by low-income users and subsidies for laptops and other broadband-capable devices, as well as funding for computer and “digital literacy” projects, and funding for programs that bundle the purchase of a PC and broadband subscription at discounted rates for students, rural, low-income, and vulnerable populations.¹ The need for such measures is supported by broadband providers and empirical evaluations of broadband adoption that indicate the perceived lack of need for broadband and a lack of computer ownership are the top barriers to broadband adoption.²

The Plan can spur both deployment and adoption through sound policymaking based on detailed, granular data and maps tracking progress on each goal. This data should be collected on a regular basis to maintain a detailed broadband inventory map. The Commission should not limit itself to one narrow and relatively arbitrary definition of broadband. Instead, the Commission should use a tiered speed analysis with different minimums for each of wireline, fixed wireless, and mobile wireless platforms and include upstream speeds proportional (but not necessarily equal) to downstream speeds. The tiers can be used to establish specific measurements, which will allow the Commission to achieve the public policy goals enumerated for the National Broadband Plan, such as consumer welfare, civic participation, public safety and homeland security, community development, health care delivery, energy independence and efficiency, education, worker training, private sector investment, entrepreneurial activity, job creation and economic growth, and other national purposes.³

In order for the Commission to achieve these goals, it is important to have an understanding of the applications made possible by certain capabilities. For example, broadband connectivity and communications are revolutionizing the healthcare industry through next-generation networks used at hospitals and medical centers for video teleconferencing and electronic records and mobile devices used for remote patient care and monitoring. Broadband is also transforming our education system through virtual classrooms and courses that allow students to receive degrees online, computer- and web-based training, Virtual Learning Environments (VLE), and increased access to information. This is made capable by a variety of technological solutions that utilize and require increased speed and mobility.⁴

¹ Comments of the Telecommunications Industry Association, *In the Matter of a National Broadband Plan for Our Future*, GN Docket No. 09-51, at 6-7 (submitted June 5, 2009) (“TIA Broadband Plan Comments”).

² *Id.* at 7.

³ *In the Matter of A National Broadband Plan for Our Future*, Notice of Inquiry, GN Docket No. 09-51, FCC 09-31, at para. 9 (rel. April 8, 2009).

⁴ Comments of the Telecommunications Industry Association, *Broadband Metrics Workshop*, GN Docket No. 09-51, at 3-5 (submitted Oct. 2, 2009).

Spectrum Allocation and Management

The expansion of next-generation wireless broadband is vital to our nation's economic, healthcare, education, security, public safety, transportation, defense, and environmental priorities. For this reason, the Commission's examination of existing spectrum usage is crucial, given the recognized wireless broadband spectrum shortfall our nation faces as demand for terrestrial wireless broadband continues to dramatically increase. The Commission should continue to adopt forward-looking spectrum management policies and allocate additional spectrum for advanced wireless services on a technology-neutral basis.⁵ The U.S. must be a world leader in spectrum policy in order to ensure that all Americans have access to the most advanced mobile broadband services. The FCC's spectrum management policies over the last decade have resulted in an American wireless market that is vibrant and competitive. As it develops a National Broadband Plan, the Commission (and all of government) should continue to adopt forward-looking spectrum management policies that continue to promote and encourage a highly competitive wireless marketplace.⁶

Universal Service Fund Reform

TIA supports transition of the universal service system to broadband and urges the Commission to include this recommendation in the Plan.⁷ TIA has consistently advocated that the Commission transition high-cost universal support toward next-generation wireless and wireline broadband networks. The transition must occur in a manner that is technologically and competitively neutral and, if the transition is not immediately possible, the Commission should phase out narrowband support over a five-year period.

TIA also urges the Commission to extend the Lifeline and Link-Up programs to fund broadband services and equipment for low-income Americans. This extension should include subsidization for the recurring costs of broadband subscriptions and the fixed cost of laptops, computer equipment, or other broadband devices. Funding should be provided in a neutral form so as to promote consumer choice by allowing recipients to use funds for any type of broadband, regardless of the technology.

Accessibility

The Plan should be used as a mechanism to promote a voluntary Industry-Government partnership to bring broadband to hard-to-reach Americans, including those with disabilities. There are a number of pro-active steps the Commission can recommend to promote accessibility. The Plan should:

⁵ See TIA Broadband Comments at 19.

⁶ See *id.* at 20-22.

⁷ See *id.* at 19.

- Extend the Lifeline and Link-Up programs to include broadband;
- The establishment of an accessible website to host links to accessibility websites of manufacturers and service providers; and
- Incorporate the needs of individuals with disabilities in its broadband adoption programs.

International Comparison (Berkman Study)

TIA commends the Commission for seeking to incorporate data from international markets into the Plan. However, TIA believes that the Broadband Study conducted by the Berkman Center for Internet and Society fails to acknowledge the competitive, multi-platform U.S. broadband marketplace.⁸ The study appears to omit and/or understate key industry and regulatory events and their collective impact on U.S. broadband infrastructure and service providers.⁹ Instead of getting pulled into a renewed debate over “open access” policies, the Plan should focus on the very real challenges facing the U.S. broadband market including the goal of improving broadband availability in rural markets and the need to drive broadband adoption across all demographics.¹⁰

Research and Development

As discussed in our previous filings, the National Broadband Plan and the Commission should support other efforts to craft economic policies that favor the deployment of ICT. In particular, TIA members believe that additional government-funded research needs to be directed towards network-focused research and development to solve some of the problems at the core of next generation networks. Further, the government should expand its efforts to receive input from industry as these agencies determine the research priorities for these funds so that the limited funding that is available focuses on the basic research that will help drive U.S. efforts and improve U.S. competitiveness. TIA believes that increased collaboration with and participation by industry will help ensure that these funds are focused on the existing knowledge gaps so that the dollars invested in basic research will help further ongoing private research efforts.

⁸ The Berkman Center for Internet & Society at Harvard University, *Next Generation Connectivity: A review of broadband Internet Transitions and policy from around the world* (Oct. 2009 Draft), available at http://www.fcc.gov/stage/pdf/Berkman_Center_Broadband_Study_13Oct09.pdf (“Broadband Study”).

⁹ “Although the report is subtitled ‘A review of broadband Internet *transitions and policy* from around the world’ (emphasis added), [the Broadband Study] does not correctly review the most pronounced and obvious *transition* in the very nation for whom [the Broadband Study] would now radically remake *policy*.” Bret Swanson, *Preparing to Pounce: D.C. angles for another industry*, The Technology Liberation Front (Oct. 19, 2009), available at <http://techliberation.com/2009/10/19/preparing-to-pounce-d-c-angles-for-another-industry/> (last visited Nov. 11, 2009) (“Swanson”) (emphasis in original).

¹⁰ Comments of the Telecommunications Industry Association, *Comment Sought on Impact of Broadband Study Conducted by the Berkman Center for Internet and Society* (NBP Public Notice # 13), *Public Notice*, GN Docket No. 09-51, at 2 (filed Nov. 16, 2009).

Public Safety

The National Broadband Plan should promote the development of a broadband interoperable public safety network capable of protecting all communities. To best promote interoperability, public safety agencies should (1) be encouraged to use standardized commercial wireless technologies, (2) consider the benefits of including federal government users on the network, and (3) pursue operational rules that support the use of widely-available commercial technologies to the extent that they meet those needs. While TIA believes that building an interoperable broadband public safety network via a public/private partnership may be a valid approach, TIA believes that the Commission's recent efforts to evaluate other options for making the D Block available for use and determining the most effective and timely way to establish a public safety network is much needed.¹¹

Energy and Environment

TIA recommends that the Plan include the following policies to both maximize the green impact of ICT and encourage innovation in the development of a Smart Grid. Because of the diversity of applications and the evolving nature of the Smart Grid, there is no single technology best suited for the Smart Grid. The FCC should promote the use of Internet Protocol (IP) as an end-to-end network layer for Smart Grid communications. IP is proven to be interoperable, reliable, scalable and secure. Smart Grid architecture should include a clear dividing line between customer premises and the reach of the utility networks, which will allow for innovation on both sides of the smart meter, maintain privacy and ownership of customer usage data, and increase network security by providing a firewall between consumer and utility data. Because wireless broadband will play a critical role in the development and execution of a Smart Grid, more study is needed to determine sufficient spectrum is allocated for these purposes.

Video Device Innovation

In the Plan, the Commission should encourage the digitization of Multichannel Video Programming Distributor (MVPD) networks, the migration of those networks to IP, and the utilization of bandwidth conservation technologies as part of the overarching effort to stimulate investment and innovation in broadband networks and video devices. These efforts will encourage video device innovation. In addition, as the Broadband Task Force has recognized, Internet-based video services are converging with traditional MVPD video services, which is driving the proliferation of innovative devices, content, and applications offered by MVPDs. Likewise, there are a growing number of services and devices that deliver Internet video services directly to televisions without the need for an MVPD subscription.

The Commission can play a constructive role in encouraging continued innovation through voluntary, industry-led solutions. Such solutions are ultimately driven by marketplace competition and consumer demand and lead to increased investment and

¹¹ See TIA Broadband Comments at 37-39.

innovation. Technology mandates, on the other hand, tend to undermine investment incentives and chill innovation by forcing providers to deploy least-common-denominator solutions. Commission policies should also continue to encourage a diverse broadband ecosystem marked by distinct broadband platforms with different capabilities and functionalities. These policies have driven significant investment in broadband networks and are central to accomplishing the important goals of bringing broadband to every corner of America.

Conclusion

In conclusion, the Commission should commit to initiating and/or completing specific proceedings and convening key stakeholders to help move forward with many of the important initiatives outlined herein. In Appendix A, TIA resubmits its TIA Roadmap that summarizes key initiatives the Commission should include in the Plan. TIA Members are committed to working with the Commission to achieve these goals and deploy high-quality broadband services and enable widespread consumer adoption of such broadband services.

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TIA ROADMAP

- I. TIA Vision for a Roadmap
 - a. Economic and societal benefits of broadband
 - b. Set forth roadmap: goals, action items, timeline

- II. Plotting the Roadmap
 - a. *Enhancing efforts to stimulate investment, innovation, and promotion of next-generation broadband deployment*
 1. Deliberate regulatory approach
 2. Facilitate broadband adoption
 3. Reasonable network management principles
 4. Data collection: broadband mapping, definitions, and capabilities
 5. Stable regulatory environment: Federal preemption
 - b. *Advocating for forward-looking spectrum management, the allocation of additional spectrum for advanced wireless services on a technology-neutral basis, and the smooth digital television transition*
 1. Additional spectrum resources
 2. Globally harmonized spectrum allocation
 3. Market-based regulatory approach
 - c. *Providing communications to all Americans, including access to consumers in low income and rural areas and those with disabilities*
 1. USF reform to include broadband distribution
 2. Extend and make permanent the Rural Health Care Pilot Program
 3. Continue Recovery Act funding efforts through additional grants
 4. Voluntary industry standards to assist those with disabilities
 5. Interagency, accessibility symposium with public/private participation
 - d. *Facilitating open and fair market access for U.S. companies by promoting full, fair and open trade and competition in international markets*
 1. Learn from international broadband strategies
 2. Liberalization of ICT on a technology-neutral basis
 - e. *Increasing the amount of federal funding towards efforts to deploy broadband in rural areas, communications network-specific basic research, tax credits and expensing provisions, among other initiatives that foster investment and innovation*
 1. Direct research towards next generation network issues
 2. Additional funding for long-term, pro-competitive, basic research
 - f. *Promoting the development of an interoperable public safety network capable of protecting all communities in the event of further domestic disasters*
 1. Need for interoperable broadband and LMRS system
 2. Interoperability of public safety systems and devices
 3. Prompt determination of shared network viability

- III. Timeline
 - a. Ensure transparency through clear agenda and benchmarks

b. Target specific action items over next three years