

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
International Comparison and Consumer	)	
Survey Requirements in the Broadband	)	GN Docket No. 09-47
Data Improvement Act	)	
	)	
A National Broadband Plan for Our Future	)	GN Docket No. 09-51
	)	
Inquiry Concerning the Development of Advanced	)	
Telecommunications Capability to All Americans in a	)	
Reasonable and Timely Fashion and Possible Steps to	)	GN Docket No. 09-137
Accelerate Such Deployment Pursuant to section 706	)	
of the Telecommunications Act.	)	

**COMMENTS OF THE NEW AMERICA FOUNDATION –  
NBP PUBLIC NOTICE #30**

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## Introduction

The New America Foundation's Open Technology Initiative and Wireless Future Program (NAF) submit these comments to the Federal Communications Commission (FCC or Commission) in the final Reply Comment period of the National Broadband Plan (NBP) proceeding. The comments are in addition to the brief filing submitted by Free Press and coalition of public interest groups that reflects the common views and goals of the public interest community. As the filing noted, the purpose was to elevate specific benchmarks, policy issues, and conclusions endorsed by the public interest community and to bring them to the attention of the Commission in the final weeks of its preparation of the National Broadband Plan. Herein, NAF provides a more detailed explanation of policy proposals to meet the benchmarks provided in the broader coalition reply comments.

NAF commends the hard work and diligence of Commission in developing a National Broadband Plan. Indeed, New America, individually and in conjunction with other public interest and Native American groups has submitted over a half-dozen filings related to the NBP proceeding. Our key message to the Commission as it nears the finish line on writing the Plan, and aligned with the entire public interest community, is to be bold and ambitious. The FCC will do little to meet the Congressional mandate of developing a National Broadband Plan "to ensure that all people of the United States have access to broadband capability," through a few limited policies to reduce costs, provide subsidies, or limit regulations on existing incumbent broadband providers, many of which are uninterested in deploying to *all* Americans and who will continue to enormously benefit from the prolonging the status quo.

Nations that have outpaced the U.S. have established ambitious goals and encouraged the deployment and adoption of best-breed technology. When Japan initiated its *e-Japan strategy* in 2001, with very little existing broadband infrastructure it set the goal of establishing a fixed network infrastructure with 30 – 100 Mbps of standardized ultra high-speed connectivity at affordable rates to at least 10 million households. By 2005, DSL and fiber-optic residential Internet connections from 20 to 100 Mbps down or upstream reached 14 million subscribers.<sup>1</sup> Although, the Japanese experience different from the U.S., it underscores the importance of establishing ambitious goals and benchmarks.

This Commission must also avoid the mistakes of its predecessors. In October 2000, a report by the Danish National IT and Telecom Agency, *The Status of Broadband Access Services for Consumers and SMEs*, estimated that the United States was "12-24 months ahead any European Country" in terms of broadband penetration and access.<sup>2</sup> Today, the United States ranks 15<sup>th</sup> in terms of broadband subscribership rates and 24<sup>th</sup> in terms of speed.<sup>3</sup> The U.S. did

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<sup>1</sup> See *Comments of New America Foundation, NBP Public Notice #1*, GN Docket No. 09-51, August 31, 2009, <http://fjallfoss.fcc.gov/ecfs/document/view?id=7020037115>.

<sup>2</sup> See *The Status of Broadband Access Services for Consumers and SMEs*, October 2000, at 4, <http://en.itst.dk/the-governments-it-and-telecommunications-policy/publications/the-status-of-broadband-access-services-for-consumers-and-smes/The%20status%20of%20broadband%20access%20services%20for%20consumers%20and%20SMEs.pdf>.

<sup>3</sup> See *OECD Broadband Statistics 1c. Total broadband subscribers by country, by country, millions*, December 2008, <http://www.oecd.org/dataoecd/22/15/39574806.xls> and *OECD Broadband Statistics 1d. OECD Broadband Subscribers per 100, by technology*, December 2008, <http://www.oecd.org/dataoecd/21/35/39574709.xls> and *OECD*

not fall to the middle of the pack in terms of broadband penetration, speeds, and cost simply by chance, rather it was the result of its failed policies. In this way, the Commission cannot move forward without assessing the current challenges, and the reasons why old policies and projections have fallen short. The focal point of the Plan should be on outcomes for consumers – not the ill-fated trap of refereeing disputes between industry players or picking industry winners and losers. These “trickle down” theories of the past are exactly what led the U.S. to fall behind other developed nations.

In doing this, the Commission must seek to maximize the number of policy recommendations it is willing to explore and pursue on its own, and be unafraid to establish how and where Congress and other respective agencies must step-up to overcome the Nation’s broadband challenges. Similarly, the Commission should not limit the Plan and policy proposals simply to what has been done before or what can be mapped out in exact detail. The NBP is not legislation, nor an FCC rulemaking, but rather a roadmap for future policy discussions and interventions the Commission and Nation will need to pursue in order to achieve universal broadband access. The job of this Plan is to set goals and next steps, and to initiate proceedings that move towards meeting those short, medium and long term goals.

In developing a national broadband plan the Federal Communication Commission (FCC) has an unprecedented opportunity to put in place policies that can both bring essential high-speed connectivity to those with limited or no access, and serve as the foundation for long-term broadband and technological innovation that can move the U.S. ahead in the 21st century. For this to be a forward-looking national broadband plan it is critical that the Plan focus on the underlying infrastructures necessary to spur ubiquitous high-speed broadband; create innovative new mechanisms to drive adoption; encourage robust competition; and empower consumers and policymakers with fundamental information on the actual state of broadband in the U.S. What follows are policy recommendations; compiled from previous NAF filings in this proceeding we feel the Commission should address to overcome the Nation’s broadband challenges

**Benchmark #1 – The FCC should set a goal to achieve a rate of broadband adoption of world class networks equal to the current rate of telephone adoption (~95%) by 2020.**

The availability of broadband by itself is not enough. Throughout our history, technologies that have become essential infrastructures to social and economic equality and opportunity have required nearly universal adoption. The positive benefits broadband for the economy, education, healthcare, energy, and democracy will not be fully realized if a substantial minority of the populations remains offline. In addressing the substantial challenge of achieving near universal adoption, the Plan will need to pursue policies to make broadband more accessible, affordable and useful. To address these issues NAF has proposed the following:

**1. Public Investment in Open Fiber-Optic Infrastructure**

The Department of Commerce and Agriculture Department investments in broadband infrastructure through the Recovery and Reinvestment Act of 2009 should be examined as

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*Broadband Statistics 5a. Average advertised broadband download speed, by country, kbits/s, September 2008, <http://www.oecd.org/dataoecd/10/53/39575086.xls>.*

models for future investments. Targeted grants and loans for high-speed and high-capacity middle-mile fiber-optic infrastructure, in particular, will benefit all end-user networks and ensure those networks are scalable over time. As the Commission recognized in its proceeding on rural broadband, lack of access to affordable and high-capacity fiber backhaul links, e.g. the middle-mile, as well as related “special access” lines serve as formidable obstacles to bringing high-speed broadband to rural areas across the country. But such challenges are not limited to rural communities. Deregulation of “special access” lines and consolidation of major interconnection points and facilities also limit the ability of non-incumbent broadband providers, both wired and wireless, to compete and scale up their broadband networks. An integral part of any national broadband plan is public investment in these underlying high-speed fiber infrastructures that facilitate connectivity for all last-mile broadband networks and to the Internet backbone.

## **2. Prioritize Open Fiber Networks Connecting Community Anchor Institutions**

NAF believes a key goal of the national broadband plan should be to deploy high capacity fiber into every community with points-of-presence (POPs) at community anchor institutions including schools, libraries, hospitals, municipal/county buildings, public safety operations and other community support organizations. The benefits of this approach are two fold: these deployments help bring essential fiber infrastructure to communities to spur deployment of end-user networks and help drive adoption. In order to maximize the benefits of these publicly funded fiber POPs, community anchor networks must be required to provide open, wholesale access to any for-profit or non-profit provider – allowing the infrastructure to spur high-speed connectivity into the rest of the community.<sup>4</sup> The e-Japan Strategy incorporated a similar “Local Information Exchange Infrastructure Preparation Program,” providing funding for local governments to develop public broadband networks in 1998.<sup>5</sup> The National Telecommunications and Information Administration’s (NTIA) second round of funding for the Broadband Technology Opportunities Program is pursuing a similar effort through prioritizing Comprehensive Community Infrastructure that connect anchor institutions. Additional funding will be needed to spur these they of networks in underserved and unserved communities across the country.

## **3. Leverage Public Investment in Surface Transportation and Smart Grid to Extend Middle-Mile Fiber Access**

The U.S. can leverage the continuous construction and repair of infrastructure (e.g. highways, roads, bridges, tunnels, and railways) to extend the necessary to fiber infrastructure to every community across the nation. As part of this effort, NAF proposes a plan to fund and mandate the installation fiber-optic conduits and dark fiber bundles along all federally-subsidized and direct federal highway projects. We can further integrate the build-out of neutral fiber-optic infrastructure into public investment in the smart grid – taking advantage of the efficiency of

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<sup>4</sup> See *Comments of New America Foundation, Public Knowledge and Media Access Project*, GN Docket No. 09-51, June 8, 2009, <http://fjallfoss.fcc.gov/ecfs/document/view?id=6520220266>.

<sup>5</sup> See *Comments of New America Foundation, NBP Public Notice #13*, GN Docket No. 09-51, November 16, 2009, <http://fjallfoss.fcc.gov/ecfs/document/view?id=7020348644>.

using a single infrastructure to facilitate connectivity for a multiplicity of services and applications.<sup>6</sup>

#### **4. Map and Open Excess Capacity on Public Sector Fiber Networks**

Broadband deployment, competition and affordability would also benefit enormously from a mapping of the public sector fiber networks used by federal, state and local public agencies nationwide. Dark fiber and/or excess capacity on the public sector's own fiber line infrastructure, opened for wholesale access to any provider – commercial or noncommercial – including non-vertically-integrated cell phone carriers, WISPs, Rural LECs and muni- or community WiFi networks, could help to substantially increase middle-mile options in areas across the country.<sup>7</sup>

#### **5. The Government as a Provider of Last Resort in Unserved Rural Areas**

In many cases, particularly in high-cost and sparsely populated rural areas, even with affordable access to high-speed middle-mile fiber and the Internet backbone, and ample access to underutilized spectrum, there may be an insufficient rate of return to induce commercial providers to deploy high-speed broadband. In the past, the U.S. has focused on providing a fair-rate return to a monopoly provider or subsidizing build-out and operational costs through programs such as the Universal Service Fund. An alternative, for those areas where private sector broadband deployment will not occur, the government could serve as a provider of last-resort in a model similar to the successful electrification of the rural Tennessee River Basin by the Tennessee Valley Authority.<sup>8</sup>

#### **6. A Tribal Broadband Plan within the National Broadband Plan**

No regions are in greater need of bold intervention to improve access and adoption of broadband than on Tribal Lands where critical infrastructures of any sort have not historically been deployed, nor developed through typical market forces. Critical infrastructure rarely has come to Tribal Lands without significant federal involvement, investment, and regulatory oversight. Substantial barriers to telecommunications deployment are prevalent throughout Tribal lands including rural, rugged terrain that increases the cost of installing infrastructure, limited financial resources that deter investment by commercial providers, and a shortage of technically trained Tribal members to plan and implement improvements.<sup>9</sup> NAF, together with National Congress of American Indians, Native Public Media, and Southern California Tribal Chairmen's Association, have developed a number of proposals to bring essential broadband to Tribal lands, including:<sup>10</sup>

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<sup>6</sup> See *Comments of New America Foundation, Public Knowledge and Media Access Project*, *supra* note 2. See also "Building a 21st Century Broadband Superhighway," Issue Brief, *New America Foundation*, January 2009, [http://www.newamerica.net/publications/policy/building\\_21st\\_century\\_broadband\\_superhighway](http://www.newamerica.net/publications/policy/building_21st_century_broadband_superhighway).

<sup>7</sup> See *Comments of New America Foundation, Public Knowledge and Media Access Project*, *supra* note 4.

<sup>8</sup> *Id.*

<sup>9</sup> See *Ex Parte Comments of National Congress of American Indians, Native Public Media, New America Foundation and Southern California Tribal Chairmen's Association, NBP Public Notice #5*, GN Docket No. 09-51, December 24, 2009, <http://fjallfoss.fcc.gov/ecfs/document/view?id=7020354770>.

<sup>10</sup> *Id.*

- *Create a Universal Service Enhanced Tribal Lands Broadband Program and Increase the Intergovernmental Coordination with Tribal Entities on Universal Service Support Mechanisms;*
- *Amend Federal Broadband Programs to Spur Deployment and Access in Tribal Communities;*
- *Adoption of a Tribal Priority for Spectrum;*
- *Revising the Tribal Lands Bidding Credit; and,*
- *Greater federal funding and education, and the creation of new federal program mechanisms to meet the myriad of planning and start up needs for deployment and digital adoption programs on Tribal Lands*

**Recommendations for Tribal federal grant programs:**

- *Increase funding for Indian Telecommunications Initiatives Tribal Workshops and Round-table Programs;*
- *Small targeted grants for Internet access and adoption;*
- *Federal funding targeted toward Tribal Entities of at least \$250 million to support deployment planning and infrastructure build-out;*
- *Ongoing Funds to Upgrade Federal Tribal Telecommunication Facilities;*
- *Establish a Digital Excellence Fund; and,*
- *Increase Tribal Access to FCC University Training Program*

**Benchmark #2 – The FCC should set a goal of substantially improving the level of competition between providers of broadband Internet access to move the country out of a stagnant duopoly by the end of 2012.**

The nation’s broadband market is a rigid duopoly. Wireless has not developed into a viable and substitutable third-pipe, as wired incumbents have increasingly leveraged their market power and resources to limit competition and new entrants. Access to spectrum, the underlying infrastructure for wireless broadband, remains an enormous barrier to entry for new providers. As mobile broadband connectivity and wireless communication continues its rapid increase, demand for spectrum will outpace availability under current spectrum management policies. Even so, in urban, suburban and rural areas across the country, large swaths of valuable spectrum are vacant or unused for the majority of the time. This underutilized spectrum represents enormous, untapped, public capacity for high-speed and pervasive broadband connectivity. New

thinking and policies are needed to shift the nation from an environment of spectrum scarcity to one of spectrum abundance.

### ***Improving Access to Spectrum***

#### **1. Build on the TV White Space Database to Open Access for Shared Spectrum Access**

One of the most promising mechanisms for making substantial new allocations of spectrum available for wireless broadband deployments and other innovation is to leverage the TV Bands Database that will be certified by the FCC for unlicensed access to vacant TV channels. Limiting the functionality of the TV Bands Database to solely the TV band frequencies is a gross underutilization of a public resource.<sup>11</sup> If a potentially useful frequency band is not being used at particular locations (e.g., in New York City but not in West Virginia), or is being used only at certain times or at certain altitudes or angles of reception, then that currently wasted spectrum capacity could at a minimum be listed in the Database for opportunistic access, subject to whatever power limits or other conditions would be necessary to avoid harmful interference with sensitive incumbent operations. Adding other bands to the TV White Space Database could ultimately increase available spectrum capacity by hundreds of megahertz or more, particularly in rural areas where measured spectrum usage below 3 GHz is in the low single digits today. Both federal and non-federal bands should be added to the Database, with access to each band subject to conditions that are tailored to avoid harmful interference to existing, licensed use. And to the extent that either a federal agency or private sector incumbents truly need compensation or incentive to facilitate shared access, a permission Database mechanism provides one means by which to collect “user fees.”<sup>12</sup>

#### **2. Open Inquiries into More Efficient Spectrum Use Technologies**

In the mid-1980s, the FCC authorized low-power, unlicensed use of spread spectrum technologies on a very limited number of bands, rejecting the engineering staff’s recommendation that the technology could be used across most of the spectrum. Since the Commission’s Spectrum Policy Task Force recommended a renewed look at spread spectrum and other reforms, however, the FCC has closed or abandoned a number of inquiries into more efficient spectrum use technologies. We urge the Commission to include in its national broadband plan a renewed inquiry into the technological feasibility of opening most spectrum to a far greater degree for unmediated, low-power broadband and innovation.<sup>13</sup>

#### **3. Broadening the Spectrum Relocation Fund into a ‘Spectrum Efficiency Fund’**

Spectrum underutilization, and the bands with the most potential for expanded sharing, is most evident in many bands reserved for use by the federal government.<sup>14</sup> Unfortunately, just like private sector licensees (particularly those that received their licenses for free), federal

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<sup>11</sup> See Victor W. Pickard and Sascha D. Meinrath, *Revitalizing the Public Airwaves: Opportunistic Unlicensed Reuse of Government Spectrum*, International Journal of Communication 3 (2009), 1052-1084.

<sup>12</sup> See *Comments of New America Foundation, Public Knowledge and Media Access Project*, supra note 4.

<sup>13</sup> *Id.*

<sup>14</sup> For an in-depth discussion of the utilization of federal spectrum and policy recommendations for reallocation of this underutilized spectrum, see Pickard and Meinrath, “Revitalizing the Public Airwaves...” supra note 11.

agencies have little incentive to undertake the costs – or the risks – associated with upgrading systems to promote spectrum efficiency. The FCC, in coordination with NTIA, should investigate and recommend ways in which federal and non-federal spectrum incumbents can take *affirmative steps* to enable more intensive access and band-sharing by other users. The most effective incentive – and win-win scenario – for the military and other federal agencies would be a streamlined source of funding to modernize systems to facilitate spectrum efficiency, band sharing, and even frequency migration where feasible. A potential source exists in the Spectrum Relocation Fund created by Congress under the Commercial Spectrum Enhancement Act (CSEA) of 2004.<sup>15</sup> If the purposes of the Spectrum Relocation Fund were broadened – turning it into a sort of revolving fund for modernizing federal systems not only to migrate off some bands entirely, but to facilitate the shared or more efficient use of other federal bands, agencies would have the incentive of an off-budget upgrade of their capabilities.<sup>16</sup>

#### **4. Hybrid Licensed/Unlicensed Networks Are the Best Way to Meet Mobile Data Demand**

Meeting the exploding demand for mobile data access must increasingly include a focus on enabling shared, dynamic access to unused and underutilized bands. What is more likely to result from a policy premised solely on clearing bands and auctioning exclusive licenses is a continuation of current trends: a sort of controlled scarcity that releases “just enough” spectrum, and does so at costs that deter competitive entry and innovation, encouraging further industry consolidation and market power. As high-capacity wireline connections and a consumer’s ability to purchase hybrid mobile devices becomes more prevalent, it is neither cost-effective nor pro-consumer to encourage a model in which most mobile data would be transported over expensive licensed airwaves, and through relatively distant carrier-provisioned infrastructure. Instead this data could and should flow short distances over unlicensed airwaves and consumer-provisioned backhaul. Moving forward, policy choices need to reflect technological realities and facilitate – and not impede – a market evolution toward these more spectrum-efficient and cost-effective hybrid networks.<sup>17</sup>

### ***Promoting Robust Competition***

#### **1. Open Access on Fixed-line Services**

Open access mandates were paramount in Japan’s and other nation’s transitions to becoming global leaders in broadband Internet speeds and affordability. In 2001, Japan was substantially behind other nations in terms of Internet and telecommunication services. To reverse the decline, Japan’s IT Strategy Headquarters established a series of interconnection rules and unbundling regulations.<sup>18</sup> The mandate of interconnection rules, unbundling regulations

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<sup>15</sup> Commercial Spectrum Enhancement Act, Pub. L. No. 108-494, 118 Stat. 3986, Title II (2004) (codified in various sections of Title 47 of the United States Code) (“CSEA”).

<sup>16</sup> See *Reply Comments of the Public Interest Spectrum Coalition*, GN Docket 09-157, 09-51, November 5, 2009.

<sup>17</sup> *Id.*

<sup>18</sup> See *Comments of New America Foundation*, NBP Public Notice #13, *supra* note 5.

and related policies transformed Japan into an international broadband leader. As the Commission's Berkman study concluded, "Contrary to perceptions in the United States, there is extensive evidence to support the position, adopted almost universally by other advanced economies, that open access policies, where undertaken with serious regulatory engagement, contributed to broadband penetration, capacity, and affordability in the first generation of broadband."<sup>19</sup> With the success of these policies in nations such as Japan, the FCC should begin to reassess its current policy framework and consider policies that address bottlenecks and bring robust competition back to the U.S. broadband market.

## **2. Open Access Requirements for Mobile Broadband Operators**

Similarly, Japanese regulators also requires mobile network operators (MNOs) to open up wireless networks for wholesale access and interconnection to new entrants and Mobile Virtual Network Operators (MVNOs) in 2007. Japan required incumbent mobile operators to provide unbundled service, interconnect MVNOs' chosen equipment, promptly respond to inquiries, and provide services on equal and fair conditions when MVNOs submit applications.<sup>20</sup>

## **3. Open Access to Public and Private Infrastructures such as Conduits and Tunnels**

Another important policy Japan developed was a requirement that utility companies, railway companies, and telecommunication carriers to provide open access to both public and private utility poles, ducts, tunnels, conduit, and other facilities for the deployment of broadband infrastructure. It also focused on simplification of the application process for companies to access facilities and public rights-of-way.<sup>21</sup> Given, the considerable costs of deploying new infrastructure and the complexity of state and local right-of-way policies, similar policies should be explored in the U.S. to ensure existing and new conduit and related infrastructure in the public right-of-way promotes competition and new entrants.

### **Benchmark #3 – The FCC should set a goal of establishing real broadband consumer protections within 12-18 months.**

On perhaps no other set of issues is there more of a consensus than on the need to increase transparency in the broadband market. A consumer friendly Internet is critical to one of the primary goals Congress established for the National Broadband Plan – "maximum utilization," increasing adoption, and promoting competition. The existing rules to ensure consumers' access to relevant information about their broadband services they are purchasing are grossly insufficient. Voluntary guidelines are insufficient as a substitute for codified regulations, as service providers routinely fail to disclose meaningful information to consumers. Substantial changes to the Commission's existing rules are necessary to remedy these problems and empower consumers with the information they need to make an informed choice. In December

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<sup>19</sup> *Next Generation Connectivity: A review of broadband Internet transitions and policy from around the world.* The Berkman Center for Internet and Society, October, 2009, [http://www.fcc.gov/stage/pdf/Berkman\\_Center\\_Broadband\\_Study\\_13Oct09.pdf](http://www.fcc.gov/stage/pdf/Berkman_Center_Broadband_Study_13Oct09.pdf).

<sup>20</sup> See *Comments of New America Foundation, NBP Public Notice #13, supra note 5.*

<sup>21</sup> *Id.*

2009, NAF filed extensive comments with the Commission, proposing a number of recommendations including:<sup>22</sup>

**1. Clear disclosure rules to ensure consumer have access to fundamental information about broadband service offerings.**

The rules should require the full and accurate disclosure to consumers before purchase, at the point of sale, and in advertising the:

- Actual service costs, including disclosure of mandatory line-item charges, non-promotional rates, and one-time and recurring fees;
- Limits on usage, as well as standardized and meaningful representations of overage fees;
- Actual, expected speeds of Internet access services in times of peak and non-peak usage, not just theoretical maximums;
- Meaningful information about restrictions and provider rights asserted in the terms of service;
- Meaningful information about actions conducted by providers that monitor, manage or interfere with a subscriber's use of services or Internet traffic; and,
- Obstacles to ending or changing service, and their purpose for being imposed, including in early termination fees and device locking mechanisms.<sup>23</sup>

**2. Standardized information disclosures across all fixed and mobile broadband services.**

NAF created a sample Broadband Truth-in-Labeling disclosure. Internet Service Providers (ISPs) should be required to provide a standardized label to notice their customers what broadband services they are subscribing to including Internet speed, service guarantees, prices, service limits, and other related elements. The label will help educate customers about the conditions of broadband services and making the services more transparent, spurring broadband competition, innovation and consumer welfare.<sup>24</sup>

**3. Reform the FCC complaint process and encourage consumers to utilize broadband measurement tools**

Most consumers are completely unaware of the existing FCC complaint process. If the process is to provide any benefit of consumer protection, at minimum the Commission must require providers to inform customer of the process. Moreover, the Commission should disclose not just the aggregate number of complaints, but the number of complaints per provider to create a market discipline mechanism for providers with a poor customer service track record. Lastly, the Commission can leverage consumers for enforcement of disclosure rules and improve data

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<sup>22</sup> See *Comments of New America Foundation, NPB Public Notice #24*, GN Docket No. 09-51, December 14, 2009, <http://fjallfoss.fcc.gov/ecfs/document/view?id=7020352952>.

<sup>23</sup> *Id.*

<sup>24</sup> See *Comments of New America Foundation, Broadband Truth in Labeling*, GN Docket No. 09-51, September 24, 2009, <http://fjallfoss.fcc.gov/ecfs/document/view?id=7020039312>. See also *Comments of New America Foundation, NPB Public Notice #24*, *supra* note 22.

on broadband performance through encouraging the use of measurement tools to test a consumer's broadband connection.<sup>25</sup>

#### **Benchmark #4 – The FCC should set a goal of new broadband data collection standards in 2010.**

The lack of broadband transparency goes beyond just the challenges faced by consumers; policymakers, researchers, and innovators have access to too little information about the workings of the Internet. Access to raw data on Internet traffic and performance has substantially diminished as scientists have struggled to conduct network research under ever-increasing constraints. The FCC's broadband data collection has been notoriously deficient in recent years. Though important steps have been taken to rectify problems, much more is needed to empower policymakers and the Commission with accurate and unbiased data about the state of broadband deployment, access, prices, use and capabilities.

##### **1. An FCC led effort to measure and collect fundamental data on broadband service capabilities and Internet performance and traffic statistics.**

As the Commission examines complex issues of network congestion and network management, the commission is in the unfortunate position of depending entirely on analyses of traffic and usage data from service providers. Consequently, decision makers are often forced to operate in an information vacuum— being placed in the position of only having access to the information that the companies, which would be affected by policy and regulatory changes, are willing to share. Data that is publicly accessible, and independently verifiable, would support unbiased analysis of actual Internet capabilities and traffic, to inform salient debates on technical, economic, policy, privacy, and social issues relating to the Internet. The data derived from a systemic collection of end-user data and Internet performance and traffic statistics would provide expert agencies with access to vital independent research and analysis.<sup>26</sup>

##### **2. Mapping of Public Spectrum Capability**

NAF recommends the Commission perform an *Inventory of the Airwaves* that maps how our public spectrum resource is being utilized or underutilized in various bands, by both commercial and government users. Actual spectrum measurement data should be included in this White House-led initiative. The Commission could draw upon funding from the American Recovery and Reinvestment Act to complete this inventory.<sup>27</sup> *This should also include a spectrum inventory of use and availability on Tribal Lands* including in detail, frequency allocations on Tribal Lands, identify licensees, and determine whether such licensees have adequately utilized the licenses they have received to bring telecommunications infrastructure to key Tribal institutions, or whether they have historically engaged in “red lining” or utilized the

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<sup>25</sup> See *Comments of New America Foundation, NPB Public Notice #24, supra note 22.*

<sup>26</sup> *Id.*

<sup>27</sup> See *Comments of New America Foundation, Public Knowledge and Media Access Project, supra note 4.*

spectrum in ways that are contrary to robust delivery of services to Tribal Lands. This inventory should include all frequencies between 225 megahertz and 10 GHz.<sup>28</sup>

### **3. The FCC should employ its regulatory mechanisms to obtain information on the deployment of broadband on Tribal Lands**

As an essential first step to improving broadband access on Tribal lands is an effort to clearly understand the current availability of the infrastructure. The FCC should create consultative mechanisms--such as an Office of Tribal Affairs--to obtain precise and accurate information directly from Tribal Governments and their offices concerning the deployment of broadband on their land. The Commission should also establish a Tribal broadband Census Notice of Inquiry to collect information from all interested parties. Form 477 data can have similar value to Tribal Governments in determining the broadband needs of their citizens, where to apply resources, and what intervention is needed. Respecting the government-to-government relationship Tribal Entities hold with the Federal Government and respecting the need for Tribal Entities to accurately evaluate the service availability on Tribal Land, the Commission should share Form 477 with Tribal Governments for verification.<sup>29</sup>

### **Benchmark #5 – The FCC should set a goal of establishing rules protecting open markets for speech and commerce on broadband networks as soon as feasible.**

It is difficult to separate a Plan for universal availability and adoption of broadband networks without protecting the open and neutral nature that led the Internet to become such an essential communication service. This is not simply about rules guaranteeing Network Neutrality, but pursuing pro-consumer policies to foster openness among all end-user devices to drive end-user innovation and adoption.

#### **1. Network Neutrality Rules**

The FCC should complete its rulemaking on Network Neutrality in the spring of 2010 to provide the necessary rules to guarantee open markets on the Internet, protect free speech, promote economic and social opportunity, and facilitate rampant innovation. They should include establishing an appropriate framework for reasonable network management, clear disclosure requirements for such practices and a complaint process that empowers consumers.<sup>30</sup>

#### **2. Wireless Carterfone and Network Neutrality**

The FCC should proceed broadly to identify ways to ensure all devices are open, standardized, and portable across all end-user broadband networks to the extent technically feasible including for mobile devices. In comments to the Commission's Open Internet proceeding, NAF filed a report, entitled "Any Device and Any Application on Wireless Networks: A Technical Strategy for Evolution," by engineers at Columbia Telecommunications

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<sup>28</sup> See *Ex Parte Comments of National Congress of American Indians, Native Public Media, New America Foundation and Southern California Tribal Chairmen's Association, NBP Public Notice #5, supra note 7.*

<sup>29</sup> *Id.*

<sup>30</sup> See *Comments of Public Interest Commenters, GN Docket No. 09-191, January 14, 2010.*

Corporation (CTC). This report provides a technical overview and recommendations concerning the feasibility and implementation of the Commission's proposed codification of the open Internet principles as applied to commercial wireless networks.<sup>31</sup>

## **Conclusion**

NAF sincerely appreciates the opportunity to submit these final reply comments in the Commission's proceeding on developing a National Broadband Plan. The above policy proposals can provide a springboard for expanding high-speed broadband to all communities; benefiting a wide variety of providers, business models, and broadband solutions, while also promoting adoption, competition, increased speeds and lower prices, and ensuring the U.S. continues to be a leading innovator in the communication technologies of the 21st century. We urge the Commission to look beyond the policies of the past and move forward with a bold National Broadband Plan.

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<sup>31</sup> See *Comments of New America Foundation, Columbia Telecommunications Corporation, Consumers Union, Media Access Project and Public Knowledge*, GN Docket No. 09-191, January 14, 2010.