

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matters of)	GN Docket No. 09-137
)	
Inquiry Concerning the Deployment of)	
Advanced Telecommunications Capability to)	
All Americans in a Reasonable and Timely)	
Fashion, and Possible Steps to Accelerate Such)	
Deployment Pursuant to Section 706 of the)	
Telecommunications Act of 1996, as Amended)	
by the Broadband Data Improvement Act)	
)	
A National Broadband Plan for Our Future)	GN Docket No. 09-51

**COMMENTS OF THE
WIRELESS INTERNET SERVICE PROVIDERS ASSOCIATION**

The Wireless Internet Service Providers Association (“WISPA”) offers these Comments in response to the Commission’s Notice of Inquiry under Section 706 of the Telecommunications Act of 1996, as amended (“*NOI*”).¹ WISPA can report firsthand that broadband is *not* being deployed in a reasonable and timely fashion to all segments of the country. Approximately 15 percent of Americans do not have affordable access to broadband. The Commission has the opportunity in this proceeding to consider changes to its rules so that these unserved areas – and underserved areas as well – can be identified, service can be more quickly deployed and consumers can benefit.

Introduction

Founded in 2004, WISPA represents the interests of more than 300 Wireless Internet Service Providers (WISPs), vendors, system integrators and others interested in promoting the

¹ See *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act; A National Broadband Plan for Our Future*, GN Docket No. 09-137; GN Docket No. 09-51 (rel. Aug. 7, 2009).

growth and delivery of wireless broadband service to Americans. Collectively, WISPs provide broadband fixed wireless services to more than 2,000,000 consumers and businesses. Many subscribers live in rural areas with few options for wired broadband technologies such as DSL and cable modem. Enabled by the Commission's allocation of unlicensed spectrum in the early 1990s, many WISPs have been able to take steps to extend their networks into more rural and remote areas where demand for broadband is great but where it is not currently available.

WISPA has filed extensive comments² and *ex parte* presentations³ promoting interference-free use of the television white spaces, and has sought reconsideration of the white space rules seeking to eliminate costly and burdensome spectrum sensing rules and to amend other rules to make WISP deployment more flexible and cost-effective. WISPA representatives have participated actively in proceedings at NTIA, RUS and the FCC concerning the broadband stimulus provisions of the American Recovery and Reinvestment Act of 2009, advocating grant eligibility and selection criteria to best promote broadband service delivery to rural and unserved Americans. WISPA has participated in this proceeding to offer suggestions to enable increased access to broadband, especially in rural areas.⁴ WISPA also recently submitted Reply Comments

² See WISPA Comments filed Feb. 20, 2007 in *Unlicensed Operation in the TV Broadcast Bands; Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band*, First Report and Order and Further Notice of Proposed Rulemaking, ET Docket Nos. 04-186, 02-380, 21 FCC Rcd 12266 (rel. Oct. 18, 2006); see also Petition for Reconsideration of the Wireless Internet Service Providers Association in ET Docket Nos. 04-186, 02-380 filed March 16, 2009.

³ See, e.g., Notices of Ex Parte Presentations from Stephen E. Coran, Counsel to WISPA, to Marlene H. Dortch, FCC Secretary, ET Docket Nos. 04-186 and 02-380, dated August 1, 2008; Letter from Jack Unger, WISPA Secretary and FCC Committee Chair, to Marlene H. Dortch, FCC Secretary, ET Docket Nos. 04-186 and 02-380, dated October 22, 2008; Notices of Ex Parte Presentations and Letters from Stephen E. Coran, Counsel to WISPA, to Marlene H. Dortch, FCC Secretary, ET Docket Nos. 04-186 and 02-380, dated October 28, 2008.

⁴ See Comments of WISPA filed June 8, 2009 in *A National Broadband Plan for the Future*, GN Docket No. 09-51 ("National Broadband Comments").

in response to the Commission’s Public Notice regarding access to aggregate Form 477 data under the Broadband Data Improvement Act.⁵

In the *NOI*, the Commission solicits comment on questions relating to the definition and availability of broadband services. From its unique vantage point, WISPA offers its observations and recommendations on these questions.

Defining Broadband

The *NOI* asks whether the FCC should “define ‘advanced telecommunications capability’ or ‘broadband’ by using the ‘same definitions in both the section 706 inquiry and the National Broadband Plan proceedings.’”⁶ As WISPA has advocated in other submissions,⁷ harmonizing these definitions – both within the Commission’s various proceedings and across other agencies – is necessary to promote constructive and efficient regulation. Data gathered pursuant to the Section 706 process will provide the most benefit if defined consistently with the National Broadband Plan approach by promoting clarity and facilitating valid comparisons of service speeds. Conversely, the lack of consistent definitions likely would lead to ineffective regulation and continued unequal access to broadband; accordingly, WISPA supports adoption of the same definition for both the Section 706 process and the National Broadband Plan. WISPA agrees that broadband should be defined by reference to the new Form 477 speed tiers.⁸

Technology Differences

The *NOI* asks whether the definition of “broadband” should “account for differences in technology, service to residential and business customers, or service to urban, suburban, and

⁵ See Reply Comments of WISPA filed August 4, 2009 in response to Public Notice, “Comment Sought on Providing Eligible Entities Access to Aggregate Form 477 Data as Required by The Broadband Data Improvement Act,” DA 09-1550, rel. July 17, 2009 (“*Public Notice*”); Erratum, rel. July 23, 2009.

⁶ *NOI* at ¶34, 35.

⁷ *Id.* at ¶37.

⁸ See National Broadband Comments at 1.

rural areas.”⁹ WISPA believes that the technological differences and limitations among broadband technologies are critical to the validity of the definition of broadband and that the Commission should adopt a flexible approach. First, regardless of the delivery method (*i.e.*, copper, fiber, wireless), the limitations of the available technology (including maximum bandwidth) apply to – and constrain – all broadband service providers. Fixed wireless bandwidth is limited by a lack of available spectrum and is therefore subject to more bandwidth limitations than other broadband delivery technologies. By contrast, fiber-optic cable technology has 100 times as much bandwidth delivery capacity as fixed wireless technology, but many unserved Americans live in remote or rural areas where a fixed, fiber-based broadband technology infrastructure has not been deployed.

Another critical bottleneck is the middle-mile connectivity needed to interconnect last-mile networks to a main Internet access location. Connectivity is extremely expensive for providers in rural areas and limits their ability to extend service. To ensure that broadband is made available in a reasonable and timely manner, the Commission should require facilities-based retail broadband providers to make access available to middle-mile networks on a non-discriminatory basis.¹⁰

In addition, the Commission’s broadband definitions should account for differences between fixed and mobile services. As the Commission recognizes, mobile broadband serves a different market than fixed broadband, and legislators and policy makers must understand and account for the technological differences that affect providers’ ability to deliver broadband, particularly to unserved and underserved Americans. Accordingly, the Commission’s definition

⁹ *Id.* at ¶35.

¹⁰ *See* National Broadband Comments at 18-19.

of “broadband” must be flexibly applied to account for the differences among wired, wireless, fixed and mobile distribution systems and the markets they primarily serve.

Cross-Agency Differences

The *NOI* also requests comment “on the definitions of broadband used by other government agencies and whether we should adopt such definitions for the purposes of our section 706 inquiry.”¹¹ The *NOI* notes that that “joint NTIA and RUS NOFA for broadband grants, released on July 1, 2009, defines broadband as “providing two-way data transmission with advertised speeds of at least 768 kilobits per second (kbps) downstream and at least 200 kbps upstream to end users, or providing sufficient capacity in a middle mile project to support the provision of broadband service to end users.” The agencies should establish a consistent definition of broadband based on minimum speeds of 768 kbps downstream and 200 kbps upstream. The FCC is the appropriate government agency to establish this definition and to ensure that any mapping and data collection will be predicated on these minimum speeds.

Static or Dynamic Definitions of “Broadband”

The *NOI* asks whether the Commission’s definition of broadband “should be static or dynamic (from report to report), with speed tiers that account for changes over time in technology, available applications, or consumer usage and demand.”¹² Because technology is dynamic and evolving, the Commission’s definition should be as well, and the Commission should add new speed tiers as technology evolves. Technology and bandwidth determine what speeds can be offered, so the Commission should not delete speed tiers even in light of technological improvements that enable higher-speed services. Once created, speed tiers should be defined consistently from report to report. Removing tiers would effectively eliminate or

¹¹ *NOI* at ¶36.

¹² *Id.* at ¶37.

“render invisible” those providers who for whatever reason cannot upgrade existing infrastructure to add new speeds. One example is fixed wireless service, where the introduction of new technology may be severely constrained by a limited and fixed amount of spectrum.

Differentiating Among Transmission Technology Speeds

The Commission asks whether “broadband” should be defined to account for different types of transmission technologies. As discussed above, defining advanced telecommunications capability without regard to any transmission media or technology ignores the fact that the broad parameters of broadband service delivery – such as throughput, bandwidth and transmission times – are technology-dependent. Accordingly, the relevant statutory language should not be narrowly construed to prevent a full assessment of the availability of broadband service within the context of specific technologies. This full assessment is good policy because it would provide a more complete set of management tools for regulators and legislators.

Definition and Availability of “Middle-Mile” Bandwidth

The Commission should define the term “middle mile”¹³ consistent with the Rural Broadband Report’s definition – “the facilities necessary to connect the ‘last mile’ ISP with an Internet backbone service provider.”¹⁴ Any discussion of end-user broadband availability that does not adequately address the cost and availability of middle mile facilities is like discussing the speed of a race car without fuel. As discussed above, affordable and available middle-mile and special-access services are necessary for affordable broadband availability in rural America. Often, the only practical alternative for a WISP is to build a multi-hop microwave backbone from the nearest urban source of affordable high-capacity Internet access, a solution that requires significant capital and operating expense. Depending on terrain, trees, obstructions, distance and

¹³ NOI at ¶39.

¹⁴ *Bringing Broadband to Rural America: Report on a Rural Broadband Strategy* (rel. May 22, 2009) at ¶114.

throughput needs, constructing these facilities can initially cost several hundred thousand dollars with additional operating expenditures of thousands of dollars per month. These large costs are typically beyond the means of the average WISP. As a result, many rural populations go completely unserved because these large middle mile costs are completely unsupportable by the customer revenue that would be generated. Moreover, incumbent carriers have incentives to limit competitive access to middle-mile (or intercity) fiber. For these reasons, the more rural the area, the less likely it is that affordable broadband access is available.

Availability of Broadband for All Americans

WISPA submits that advanced telecommunications capability is not “available” for all Americans because in many locations, affordable broadband has not been deployed. Some WISPs report that in their areas, 60 percent of the households have no broadband option other than satellite. A January 2009 Pew Research Center Study found that 15 percent of dial-up users were completely unserved – *i.e.*, had no access to broadband Internet. Millions of consumers cannot use broadband for online activities such as checking the weather; managing Social Security and Medicare payments; renewing driver’s licenses and automobile registrations; managing checking accounts; paying taxes; doing schoolwork; operating a home-based business; or telecommuting by working part-time at home. Clearly, all Americans should have an equal opportunity to engage in these basic activities, yet millions are denied this opportunity due to the lack of available or affordable broadband.

Do Broadband Mapping Efforts Indicate Availability?

The Commission asks whether “availability” for Section 706 purposes should “be derived (in whole or in part) based on the data underlying broadband maps that would identify where

broadband infrastructure is deployed across the country?”¹⁵ WISPA believes that such maps should not be the sole determining factor of “availability.” Current state broadband maps are incomplete and should only supplement – not supplant – other sources of broadband availability data such as Form 477 data, subscribership data, survey data, census data, and the like. In this regard, with respect to actions the Commission should take “to improve its regular broadband data-collection efforts,” WISPA believes that the Commission must continue to improve and refine the Form 477 data collection process.

Should Anchor Institutions affect consideration of “availability”?

The *NOI* seeks comment on “whether and how the existence of community anchor institutions and publicly available Internet access points (*e.g.*, Wi-Fi hotspots, public libraries, and Internet cafes) should affect our consideration of availability.”¹⁶ Such institutions and access points are not an adequate substitute for an always-on broadband Internet connection at home; therefore the definition of “availability” should be keyed primarily to broadband access at homes. In rural areas with low population densities, it is unreasonable to expect residents to simply run into a nearby town to an Internet cafe or to the library every time they want to answer email, check the weather, print a map, manage checking accounts or email a proposal to a client. Furthermore, Wi-Fi hotspots are often unavailable in rural areas, and therefore cannot compensate for the lack of an always-on, broadband Internet connection at home.

Is Broadband Deployment Reasonable and Timely?

Until *every* American has affordable, always-on, broadband Internet access *from home*, broadband deployment is neither reasonable nor timely and the goals of Section 706 are unmet. Just as every household needs access to electricity and to a telephone, every household needs to

¹⁵ *NOI* at ¶44.

¹⁶ *Id.* at ¶47.

have access to broadband Internet. Unlike their rural counterparts, urban consumers typically have choices among broadband providers and greater access to broadband. Consumers in rural areas often have no choice among technologies and tiers of advanced services comparable to those available to consumers in urban areas. Rural consumers are drastically shortchanged in their available broadband choices – because often their “choice” is no choice at all.

For broadband availability to be deemed reasonable and timely it must be affordable. WISPA has previously advocated that the Commission should identify the need for Congress to make additional funding available for subsidies, rebates, vouchers and other similar mechanisms designed to make broadband affordable to residents in rural, unserved and underserved areas of the country.¹⁷ For these reasons, in furtherance of Congressional efforts to boost broadband deployment to the public, the Commission should promote clarity in measuring and assessing whether broadband can meet this goal and to stimulate investment in those areas where such deployments are uneconomic and often nonexistent.

Actions to Accelerate Broadband Deployment

In addition to the above, WISPA recommends that the Commission take the following actions to spur broadband deployment:

1. The Commission should quickly act on the pending petitions for reconsideration of the TV white space rules, and should also expedite its efforts to solicit bids for database administration.
2. The Commission should improve wireless broadband providers’ access to tower sites. Federal, State and local governments should be encouraged to expedite and streamline requests to access government-owned towers, and the Commission should ask Congress to afford broadband providers the same rights to utility poles and non-discriminatory pricing afforded to cable television systems and providers of telecommunications services. The Commission also should update its database to include a list of towers on federal, state and local lands that would be available for WISPs and other wireless providers to access.

¹⁷ See National Broadband Comments at 22-23.

3. As previously advocated,¹⁸ WISPA supports promoting expeditious and cost-effective service via a “spectrum homesteading” policy. Unlicensed spectrum would be made available on a non-exclusive basis, and those providers that meet an accelerated build-out and service schedule would then obtain an exclusive license for the area.
4. The Commission should use “licensed lite” spectrum assignment as a substitute for Part 15 permissible use wherever possible. This approach facilitates coordination to reduce harmful interference and encourages responsible system design, thereby enhancing the investment potential and the likelihood of success in broadband deployment.

Conclusion

WISPA applauds the Commission’s efforts to define and refine its survey of broadband availability and its commitment to increasing broadband deployment to the areas most in need of broadband. WISPA urges the Commission to adopt the recommendations set forth in these Comments and thereby account for the important role that WISPs, particularly in rural, unserved and underserved areas, will play in providing improved and affordable broadband availability.

Respectfully submitted,

**THE WIRELESS INTERNET
SERVICE PROVIDERS ASSOCIATION**

September 4, 2009

By: */s/ Richard Harnish, President*
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¹⁸ *Id.* at 1, 14-15.