

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
International Comparison and Consumer	)	GN Docket No. 09-47
Survey Requirements in the Broadband	)	
Data Improvement Act	)	

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**COMMENTS OF AT&T INC.**

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## I. INTRODUCTION AND SUMMARY

AT&T, Inc. and its affiliated companies (collectively, AT&T) respectfully submit the following comments in response to the Commission's public notice seeking comment on how it should implement the provisions of the Broadband Data Improvement Act (BDIA) that require it to: (a) include an international comparison in its annual section 706 broadband reports, and (b) conduct periodic consumer surveys of broadband service capabilities in the U.S.<sup>1</sup> As discussed below, the Commission cannot simply rely on raw broadband subscribership or speed data to make meaningful "apples-to-apples" comparisons between different communities. Instead, it must account for a variety of different technical, demographic, economic, regulatory and other factors that may influence broadband deployment and adoption. To satisfy its consumer survey obligation, the Commission should partner with the Census Bureau, which has both the requisite resources and expertise to conduct the "statistically significant" surveys called for by the BDIA.<sup>2</sup>

## II. DISCUSSION

### A. **In Making International Broadband Comparisons Required by the BDIA, the Commission Must Account for a Wide Variety of Technical, Demographic, Economic, Regulatory and Other Factors.**

As part of its examination into whether broadband service is being deployed to all Americans in a reasonable and timely fashion pursuant to section 706 of the 1996 Act,<sup>3</sup> the Commission is now required by the BDIA to compare the broadband service capabilities in different communities around the world to similar communities in the

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<sup>1</sup> See *Comment Sought on International Comparison and Consumer Survey Requirements in the Broadband Data Improvement Act*, GN Docket No. 09-47, Public Notice, DA 09-741 (March 31, 2009); Broadband Data Improvement Act of 2008, Pub. L. No. 110-385, 122 Stat. 4097 (Oct. 10, 2008) (BDIA).

<sup>2</sup> BDIA § 103(c)(1).

<sup>3</sup> Section 706(a) of the Telecommunications Act of 1996, Pub. L. 104-104, 110 Stat. 56 (1996), reproduced in the notes under 47 U.S.C. § 157.

United States.<sup>4</sup> In conducting this comparison, Congress did not want the Commission to simply recite the broadband “national rankings” data compiled by entities such as the Organization for Economic Cooperation and Development (OECD), which have been heavily criticized for containing numerous methodological flaws, presenting incomplete data in a misleading fashion, and failing to examine the root causes of the differences in broadband penetration rates among the countries being studied.<sup>5</sup>

Instead, Congress recognized that a wide variety of technical, demographic, economic, regulatory and other factors affect the broadband service capabilities that are available to consumers in different communities and it wanted to the Commission to delve into those factors so that U.S. broadband policy could be informed by sound, empirical analysis. Specifically, Congress instructed the Commission to examine “relevant similarities and differences in each community” in its analysis of international broadband service capabilities, which include -- without limitation -- the following criteria:<sup>6</sup>

- population size
- population density
- topography
- demographics

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<sup>4</sup> BDIA § 103(b).

<sup>5</sup> See Luncheon Address of Commissioner Robert M. McDowell, FCC, Broadband Policy Summit III (June 7, 2007) (“the OECD methodology is so flawed that, by one analysis, even if all of the OECD countries, including the U.S., enjoyed 100 percent broadband penetration of all homes and businesses, our rank would fall to 20<sup>th</sup>.”); *OECD’s Shoddy Broadband Stats Exposed*, IT Wire, (May 15, 2007) (Australian research firm Market Clarity found that the OECD “mis-reported broadband subscriber numbers for 28 out of its 30 member nations in its June 2006 analysis” and warned that the OECD’s broadband rankings are “not sufficiently rigorous or accurate to inform the basis of national policy making”), available at <http://www.itwire.com/content/view/12167/127/>. See also *The Broadband Performance Index: A Policy-Relevant Method of Comparing Broadband Adoption Among Countries*, Phoenix Center Policy Paper Number 29 (July 2007) (*Phoenix Center Policy Paper 29*).

<sup>6</sup> See BDIA § 103(b).

- market structures
- number of competitors
- number of facilities-based providers
- types of technologies deployed by broadband providers
- types of applications and services enabled by broadband technologies deployed
- regulatory models
- types of applications and services used by customers
- business v. residential use of services
- other media available to consumers

AT&T believes that each of these factors may play a role in the broadband service capabilities available in a particular community and should be closely examined by the Commission in its comparative analysis. To assist the Commission in analyzing these factors with the goal of making “apples-to-apples” comparisons between different communities, we offer the following recommendations for the Commission’s consideration.

*First*, when considering demographics, the Commission should pay particular attention to income, education and age. Various studies have shown that populations with higher incomes, greater education levels and lower average age tend, as a general matter, to have greater broadband penetration than populations with lower incomes, lesser education levels and higher average age.<sup>7</sup> Further, because some forms of

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<sup>7</sup> See *Home Broadband Adoption*, Pew Internet & American Life Project, at 3 (July 2008); *Networked Nation: Broadband in America 2007*, National Telecommunications and Information Administration, at online Appendices (Jan. 2008); *The Broadband Efficiency Index: What really Drives Broadband Adoption Across the OECD?*, Phoenix Center Policy Paper Number 33 (May 2008).

broadband service (e.g., fixed services like DSL or cable modem) are typically shared among members of a household, the Commission should also examine average household size in the communities it studies. Indeed, failing to examine broadband penetration at the household level – and focusing only on per capita penetration – can significantly understate broadband penetration, particularly in countries or communities that have both large populations and large household sizes.<sup>8</sup>

*Second*, when looking at the types of technologies deployed by broadband providers in the community-to-community comparison required by the BDIA, the Commission should recognize that broadband providers may make network technology choices based on regional and national considerations, rather than solely community-level considerations. For example, to the extent a hypothetical broadband provider were to offer service in a large country where a small portion of the population is located in a few densely populated cities (*i.e.*, where wireline technologies may be more economically viable) but the bulk of the population resides in less densely populated rural areas (*i.e.*, where wireless technologies may be more economically viable), the provider may choose to deploy wireless technologies nationwide in order to achieve economies of scale and simplify the management and maintenance of its network, rather than deploying wireless technologies in some parts of the country and wireline technologies in other parts of the country. Accordingly, when comparing network technologies deployed in different communities as required by the BDIA, the Commission should also look at regional and national factors that may influence network technology decisions at the community level.

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<sup>8</sup> See *Phoenix Center Policy Paper 29* at 7-9.

*Third*, as the Commission reviews regulatory models in its comparative analysis, it should closely examine whether and how any subsidies are provided to broadband providers. Such subsidies may come in many forms. They may be explicit (*e.g.*, direct monetary payments from the government) and/or implicit (*e.g.*, geographic rate averaging), and they may be intended to subsidize network build-out costs and/or monthly service costs.<sup>9</sup> In all events, the Commission should analyze how any such subsidies affect the deployment of broadband facilities as well as the speed, quality and price of the broadband services available to consumers in the various communities the Commission selects for its comparison.

*Fourth*, when comparing “data transmission speeds and price for broadband service capability” as required by the BDIA,<sup>10</sup> the Commission should exercise particular care in comparing both speeds and prices. Methodologies for measuring broadband speeds can vary from country to country or provider to provider. Speeds may be measured over different portions of different providers’ networks, may or may not include customer premises inside wiring in the measurements, may be conducted at different times of day with different levels of network congestion, and may be based on different statistical sampling methods using different measurement software and equipment, among other things. A comparison of two hypothetical DSL providers in two different countries illustrates this point. Speeds may be measured on the first DSL

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<sup>9</sup> *See, e.g., The Broadband Gap: Why Do They Have More Fiber?*, NY Times (March 12, 2009) (“Sweden has built one of the fastest and most widely deployed broadband networks in Europe because its government granted tax breaks for infrastructure investments, directly subsidized rural deployment, and, perhaps most significantly, required state-owned municipal utilities to create local backbone networks, reducing the cost for the local telephone company to provide service. Japan let telecommunications companies write down about one-third of their investment in broadband the first year, rather than the usual policy, which requires them to spread the deductions over 22 years. The Japanese government also subsidized low-cost loans for broadband construction and paid for part of the wiring of rural areas.”).

<sup>10</sup> *See* BDIA § 103(b)(1).

provider's network between the network interface device on the outside of the customer premise and the digital subscriber line access multiplexer (DSLAM) in the provider's central office during the late afternoon / early evening (typically a peak usage period) using a particular type of testing equipment and sampling methodology, whereas speeds may be measured on the second DSL provider's network between the customer's modem and a peering point with another network in the early morning (typically a low usage period) using a different type of testing equipment and sampling methodology. Looking only at the end results (i.e., the speeds produced by the measurements), without analyzing how the results were produced, would not yield an "apples-to-apples" comparison.

Further, as AT&T and other parties have explained to the Commission at length, numerous factors affect the broadband speeds experienced by a consumer, many of which are beyond the control of the broadband provider and may mask the true capabilities of the service, such as the quality of inside wiring at the customer's premise, the computer and networking equipment used by the consumer, the software and applications currently being run by the consumer, general Internet congestion and the responsiveness of the particular servers and networks the customer seeks to access, as well as many technology-specific factors, including how many other subscribers are using the same shared facilities (*e.g.*, cable modem), the consumer's distance from the provider's facilities (*e.g.*, DSL), atmospheric conditions (*e.g.*, satellite) and the capabilities of subscriber-purchased devices (*e.g.*, wireless devices).<sup>11</sup> In order to draw any meaningful conclusions about whether and, perhaps more importantly, *why* broadband service is

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<sup>11</sup> See, *e.g.*, AT&T Comments, WC Docket No. 07-38, at 11-12 (June 15, 2007).

“faster” in one community versus another, the Commission must ensure that its analysis accounts for all of these variables.

The same holds true for broadband prices. As AT&T and other providers have explained, service providers often offer their services in triple-play (voice, video, Internet) or quadruple-play (triple-play plus wireless) packages, and consumers often receive pricing discounts for purchasing such packages.<sup>12</sup> While this is clearly a pro-consumer marketplace development that policymakers should encourage, it makes comparing broadband service prices from different providers exceedingly difficult because those prices may be dependent on the type and quantity of other *non-broadband* services purchased by the customer.

Moreover, even when providers offer broadband Internet access services on a “stand-alone” basis (i.e., not bundled with other non-broadband services), the broadband service offered to the customer is typically not an easily comparable, single-capability product that merely provides access to the Internet and nothing more. Quite the contrary, providers often charge a single price for Internet access capability offered together with a plethora of different features and functionalities that vary from provider to provider, including but not limited to multiple email addresses, web-based email access with email storage capacity, free or discounted email migration services, firewall software, anti-virus software, anti-spam software, pop-up blocking software, parental controls, online data storage capacity, a companion dial-up Internet access account, free or discounted modems and/or wireless routers, online or live technical support, free or discounted access to WiFi hotspots, access to proprietary content, and many other features. In addition, even when providing “stand-alone” broadband Internet access services, many

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<sup>12</sup> See, e.g., AT&T Comments, WC Docket No. 07-38, at 6-9 (Aug. 1, 2008).

providers offer customers a variety of pricing incentives, including but not limited to introductory promotional rates, rebates, gift cards, term discounts and other inducements. Accordingly, when making comparisons between broadband prices in different communities, the Commission should account for these variables.

**B. The Commission Should Partner with the U.S. Census Bureau to Conduct the Consumer Broadband Surveys Required by the BDIA**

The BDIA requires the Commission to “conduct and make public periodic surveys of consumers in urban, suburban, and rural areas in the large business, small business, and residential consumer markets” to determine the types of broadband services they use, the prices they pay for those services, the data transmission speeds of those services and other information related to consumers’ use of such services.<sup>13</sup> The BDIA further requires the Commission to ensure that its survey enables an evaluation of consumers’ use of broadband service on a “statistically significant basis.”<sup>14</sup>

Conducting surveys on a statistically significantly basis would likely require obtaining data from tens of thousands of households and businesses,<sup>15</sup> and it is unlikely that the Commission would have the resources or expertise to complete this task by itself. Instead of going it alone, AT&T recommends that the Commission partner with the nation’s expert agency on conducting consumer surveys: the U.S. Census Bureau. The Census Bureau already has substantial experience in conducting consumer surveys regarding broadband services based on the work it performed to support NTIA’s periodic “Nation Online” and “Networked Nation” reports. As NTIA explained in its 2004 Nation

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<sup>13</sup> BDIA § 103(c).

<sup>14</sup> BDIA § 103(c).

<sup>15</sup> See *A Nation Online: Entering the Broadband Age*, National Telecommunications and Information Administration at i (Sept. 2004) (*Nation Online 2004*).

Online report, “[b]ased on the U.S. Census Bureau’s Current Population Survey of 57,000 households containing 134,000 persons, this report provides broad-based and statistically reliable information on the ways that information technologies in general, and broadband more specifically, are transforming the way we live, work, and learn.”<sup>16</sup> Thus, there is no reason for the Commission to “reinvent the wheel” here by trying to conduct the consumer broadband surveys in-house. Rather, to satisfy the survey mandate of the BDIA, it should follow in NTIA’s footsteps and partner with the Census Bureau.

### III. CONCLUSION

The Commission should implement international comparisons and consumer survey requirements of the BDIA in a manner consistent with the recommendations offered above by AT&T.

Respectfully Submitted,

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<sup>16</sup> *Nation Online* 2004 at i. See also Current Population Survey website at <http://www.census.gov/cps/>.