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

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In the Matter of A National Broadband Plan for Our Future

GN Docket No. 09-51

REPLY COMMENTS OF THE

NATIONAL ASSOCIATION OF STATE UTILITY CONSUMER ADVOCATES AND THE NEW JERSEY DIVISION OF RATE COUNSEL

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I. INTRODUCTION

Hundreds of parties submitted thousands of pages of comments in response to the Notice of Inquiry ("NOI") issued by the Federal Communications Commission ("FCC" or "Commission") regarding its preparation of a National Broadband Plan, which the FCC must submit to Congress by February 10, 2010.¹ In these reply comments, the National Association of State Utility Consumer Advocates ("NASUCA") and the New Jersey Division of Rate Counsel ("Rate Counsel") (collectively "Joint Advocates") respond to certain points and recommendations that other parties raise. Joint Advocates do not, however, attempt to address each of the dozens of positions and perspectives that initial comments encompass, but rather, in these reply comments, focus on certain key policies that could have significant repercussions for the nation's existing and future broadband consumers. Joint Advocates' review of the comments filed in this proceeding does not alter the recommendations contained in the initial comments

¹ A National Broadband Plan for Our Future, GN Docket No. 09-51, Notice of Inquiry, 2009 FCC LEXIS 1684 (rel. April 8, 2009).

filed by NASUCA and Rate Counsel.² Joint Advocates are using these reply comments principally to address and rebut those comments that would undercut efforts to develop and adopt a National Broadband Plan that will best serve the public interest.

Among the issues that initial comments raise, and that Joint Advocates address in these reply comments are:

- The appropriate level of government involvement in the broadband market to address market distortions and imperfections;
- The performance of the broadband market to date;
- The need for open networks and limits on "traffic management" by broadband providers;
- The role of the federal Universal Service Fund ("USF") in achieving national broadband goals;
- The need for accountability when public monies are being used either directly (such as through the stimulus plan) or indirectly (such as through universal service support payments to carriers);
- The merits of public ownership of broadband infrastructure where public monies have been used;
- The role of municipalities in achieving national broadband goals;
- The "rippling" digital divide, which requires the nation to consider how to assess its tolerance for disparate levels of broadband access as the nation's broadband network evolves;

² NASUCA and Rate Counsel each submitted separate initial comments on June 8, 2009.

- The importance of public access to data and mapping in order to minimize the consequences of information asymmetry; and
- The need for suitable benchmarks for measuring progress in broadband deployment and subscription and the importance of accurate data to guide policy and investment.

II. MARKETS, BROADBAND DEPLOYMENT AND THE APPROPRIATE ROLE FOR GOVERNMENT

A. SOME COMMENTERS OVERSTATE THE CASE FOR THE FREE MARKET AND UNDERSTATE THE IMPORTANT ROLE THAT GOVERNMENT MUST PLAY TO ENSURE THAT THE NATION'S BROADBAND NETWORK IS DEPLOYED IN AN OPEN, AFFORDABLE AND UBIQUITOUS MANNER.

Some commenters would have the Commission continue, or even expand, past

deregulatory policies as the primary means of promoting broadband deployment, essentially arguing that continuing a "hands-off" approach will ensure the least costly way to provide adequate and ubiquitous broadband access for consumers.³ While regulatory flexibility to encourage private sector decision-making, innovation and experimentation is appropriate, government intervention in the broadband market is nonetheless essential and should be focused on ensuring deployment to areas that are unserved or underserved and overcoming barriers to consumers' broadband adoption. However, some of the comments advocating a free market approach to national broadband policy do so from a purely ideological rather than a practical perspective,⁴ failing to acknowledge past failures or difficulties with such an approach. Joint

³ See, e.g., American Consumer Institute ("ACI"), at 11; Comcast Corporation ("Comcast"), at 22-23, 33.

⁴ See, e.g., Randolph J. May, President, The Free State Foundation, at 1 ("May"), at 1 ") (comparing the development of a national broadband plan to the Soviet five-year plan); ACI (at 40) (discussing planned economies vs. enterprise economies).

Advocates disagree, for example, with recommendations that any federal support must favor

private sector companies over government providers.⁵

Exemplifying this preference for ideology over facts, Mr. May discusses statistics on America's broadband "success,"⁶ but then states:

Although some in the U.S. continue to "talk broadband down," seemingly for the purpose of advancing a pro-regulatory policy agenda that tilts heavily in the direction of more government regulatory control, if not ownership, of broadband networks[,] the reality is that the U.S. has made remarkable progress in making available reasonably-priced, high-speed broadband on a nearly ubiquitous basis. The broadband glass is much more than half-full than half-empty. The remarkable progress has been achieved under a generally deregulatory broadband environment that has encouraged massive private sector investment.⁷

This is an ideological analysis, not based in reality. Comcast similarly argues for limited regulatory intervention on the basis of the relatively rapid broadband growth rates of the past several years.⁸

However, these commenters present no evidence to demonstrate that the many still unserved and underserved areas and populations will reap the benefits from a light regulatory touch. Indeed, broadband adoption growth rates are not linear – the most difficult to reach (from both a supply and demand perspective) are those who remain "unconnected." Joint Advocates concur with the assertion of the AdHoc Telecommunications Users Committee ("AdHoc") that "[r]elying on the market to offer high speed Internet service at reasonable rates, terms and conditions should be the preferred course. When the market, however, fails, government

⁵ May, at 2.

⁶ Id. at 3-5.

⁷ Id. at 5-6 (footnote omitted).

⁸ Comcast, at 23-24.

intervention is justified."⁹ This is the appropriate course the Commission should follow in establishing the National Broadband Policy.

Contrary to the assertions of some commenters,¹⁰ there are compelling reasons for judicious government intervention in the broadband market. These reasons include, among other things, the fact that broadband, like other telecommunications and transportation systems, provides a public good that yields social benefits¹¹ above and beyond the "utility" that an individual consumer derives from broadband access.¹² Maximizing consumer utility and maximizing consumer surplus¹³ are certainly desirable, but will not by themselves lead to affordable broadband for all consumers. A National Broadband Plan must recognize not only the strength of the private market but also its weaknesses, and should identify and set forth a roadmap to address those aspects of the broadband market that are not working efficiently, in part because of the externalities that the market cannot address.

Moreover, no rational observer would argue that government intervention should always be eschewed. As a society we provide public goods through government intervention every day. The rationale for government intervention (through taxes, subsidies or other measures) can vary, including:

⁹ AdHoc, at ii.

¹⁰ See, e.g., ACI, at 11 ("The Commission must recognize that a hands-on regulatory remedy may not maximize consumer welfare."); see also id., at 11-13, 28.

¹¹ See, e.g., Communications Workers of America ("CWA"), at 22-35; Benton Foundation, Center for Creative Voice in the Media, and Professor Heather E. Hudson ("Benton Foundation"), at 22-23.

¹² Consumers, through their purchasing decisions, seek to maximize their utility, and in so doing show their "preferences." *See, generally*, Andreu Mas-Colell, Michael D. Whinston and Jerry R. Green, *Microeconomic Theory* (New York: Oxford University Press, 1995) ("Mas-Colell, et al.").

¹³ Consumer surplus is the difference between the marginal benefit that consumers derive from a product and the amount that they actually pay. *See, e.g.*, W. Kip Viscusi, John M. Vernon, Joseph E. Harrington, Jr., *Economics of Regulation and Antitrust*, at 78 (Third Edition, MIT Press, 2001) ("Viscusi, et. al."), at 78; Ronald K. Fisher, *State and Local Public Finance*, at 37 (Second Edition, 1996); Brian R. Binger and Elizabeth Hoffman, *Microeconomics with Calculus*, (HarperCollins Publishers, 1988), 202-213; Hal R. Varian, *Microeconomic Analysis* (Third Edition, W.W. Norton & Company, 1992), at 160-170.

- Network externalities;¹⁴
- The provision of public goods (to achieve related social goals such as employment, clean air, health care, distance learning, etc.); and
- Market imperfections (duopoly, information asymmetry, exorbitant special access rates.¹⁵

Even Comcast, despite its calls for a "hands off" approach, concedes that government intervention may be appropriate in the broadband market "based on specifically identified failures of government policy or of the marketplace."¹⁶

B. THE SPECIAL-INTEREST PLEADING OF THE LARGE CARRIERS MUST BE REJECTED.

Among the strongest apologists for allowing the "free market" to control the nation's

broadband future are the two groups of providers that dominate that market: incumbent local

exchange carriers ("ILECs") and cable providers. Their position is exemplified in the comments

of AT&T Inc. ("AT&T").

In its comments, AT&T says that the market has been wildly successful in expanding broadband access, lowering broadband prices and increasing broadband capabilities.¹⁷ AT&T

¹⁴ A telecom-related definition is as follows: "Network externalities arise whenever an individual benefits from an increase in the number of individuals that are part of a network. A telephone is not much use if there is not one at the other end of the line. The value of a telephone is increased as more people have telephones." Joseph E. Stiglitz and Carl E. Walsh, *Principles of Microeconomics* (Third Edition, W.W. Norton & Company, 2002), at 250. Though at first glance this principle may not seem to hold true with Internet access (certainly one can access information from the FCC's website whether or not one's neighbor is "online"), the value of one's own Internet access is vastly increased if one can reach more people with one's e-mail, on-line advertising for a business, or can collaborate with other people by sharing information with one another on the Internet.

¹⁵ See, e.g. Viscusi, et al., at 314-315 ("When a market failure occurs – whether due to natural monopoly, externalities, or some other source – there is a potential rationale for government intervention . . . In the case of externalities, imposition of a tax (subsidy) on an activity that generates a negative (positive) externality can result in a socially preferred allocation. When there is a market failure, in theory regulation may be able to raise social welfare.").

¹⁶ Comcast, at 22.

¹⁷ AT&T, at 78-79.

touts its own achievements as evidence of this success.¹⁸ AT&T then proposes that the National Broadband Plan establish a goal of 100% broadband deployment by 2014.¹⁹

AT&T fails to acknowledge the significant gap between its supposed success and a supposedly ubiquitous broadband network. Specifically, AT&T does not acknowledge its responsibility for a significant portion of that gap. Indeed, AT&T conveniently overlooks the fact that it promised to provide 100% broadband ubiquity in its territory by the end of 2007! This commitment was no mere aspirational goal; it was one of the commitments it formally agreed to as a condition of the Commission's approval of the BellSouth/AT&T merger in 2005.²⁰ And in fact, an AT&T official attested in early 2008 that AT&T was "in substantial compliance" with that condition of the BellSouth/AT&T merger order, among others.²¹ In this respect, Joint Advocates cannot help but agree with the vituperative, but accurate, reaction of New Networks Institute ("NNI") to AT&T's claims about its broadband successes (and proposed goal of 100% broadband by 2014): "Liar, liar... Pants on fire!"²²

Likewise, AT&T's assertions of its tremendous investments in new broadband technology lack credibility. The record actually shows a pattern of AT&T (and other RBOC) disinvestment over the last several years.²³

¹⁸ See, e.g., id., at 79-80.

¹⁹ *Id.*, at i.

²⁰ *Review of AT&T, Inc. and BellSouth Corp. Application for Consent to Transfer of Control*, WC Docket No. 06-74, Memorandum Opinion and Order, FCC 06-189 (rel. March 26, 2009), Appendix F at 147.

²¹ Id., letter from Jacquelyne Flemming (February 6, 2008).

²² New Networks Institute News Analysis, at 1 (June 15, 2009) at 1, accessible at http://www.newnetworks.com/attbroadband.htm. NNI's view is, of course, informed by the recitation of decades of regional Bell operating company ("RBOC") failures to meet commitments, on the federal and state levels. *Id.* at 2-3. See also, Wired.com, at [4] ("Force every telecom executive to use a 1220 baud modem until every one in the country is upgraded to Korean standards."). See also NNI and Teletruth Comments.

²³ *See, e.g.*, AdHoc at13.

From the other side of the duopoly, Time Warner Cable, Inc. ("Time Warner") argues that private investment has fueled the growth in broadband availability and that the overwhelming majority of households have access to broadband services based upon the number of homes passed by cable and digital subscriber line ("DSL") service.²⁴ Time Warner's statistics only reinforce Joint Advocates' concerns about the duopoly that exists for consumers and the resultant lack of competition and affordable alternatives.

C. THE CURRENT DUOPOLY MARKET STRUCTURE IN BROADBAND SERVICE RAISES MARKET FAILURE CONCERNS.

A number of commenters that favor the "hands-off" regulatory approach in national broadband policy seek to discount or ignore the duopoly for broadband service that has developed in recent years – primarily as a result of just such an approach by the federal government. For example, in its attempt to rebut concerns of "[a] handful of parties" that have drawn attention to the current duopoly structure of the broadband industry,²⁵ ACI quotes from Scherer's landmark industrial organization textbook:

Economists have developed literally dozens of oligopoly pricing theories – some simple, some marvels of mathematical complexity. This proliferation of theories is mirrored by an equally rich array of behavioral patterns actually observed under oligopoly. Casual observation suggests that virtually anything can happen....²⁶

NASUCA and Rate Counsel are among the many parties – much more than a handful – who have consistently raised significant, well-founded concerns about the evolving cable-telecommunications duopoly, particularly in the broadband market.²⁷ The problems that arise

²⁴ Time Warner, at 7-11; see also, Comcast, at 40-41.

²⁵ ACI, at 14.

²⁶ ACI, at 15, *citing* F. M. Scherer, *Industrial Market Structure and Economic Performance*, (Chicago: Rand McNally., 1970) ("Scherer"), at. 131.

²⁷ See, e.g., 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

from a oligopolistic market – of which a duopoly is the most extreme example – are discussed in

the very textbook cited by ACI. That authority explains those problems as follows:

Any realistic theory of oligopoly must take as a point of departure the fact that when market concentration is high, the pricing decisions of sellers are interdependent, and the firms involved can scarcely avoid recognizing their mutual interdependence. If they are at all perceptive, the managers of oligopolistic firms will recognize too that profits will be higher when cooperative policies are pursued than when each firm looks only after its own narrow self-

Telecommunications Act of 1996, GN Docket No. 07-45, Comments of the New Jersey Division of Rate Counsel, at 18-21 (May 16, 2007), citing and attaching Susan M. Baldwin, Sarah M. Bosley and Timothy E. Howington, "The Cable-Telco Duopoly's Deployment of New Jersey's Information Infrastructure: Establishing Accountability," White Paper prepared for the Public Advocate of New Jersey Division of Rate Counsel (Jan. 19, 2007) ("Cable-Telco Duopoly White Paper"); NASUCA Letter to the National Telecommunications and Information Administration ("NTIA") and Rural Utilities Service ("RUS"), p. 13 (March 18, 2009) ("NASUCA NTIA Letter"), available at http://www.nasuca.org/.

Joint Advocates are not alone in raising concerns about the ILEC-cable duopoly that defines the broadband market in America. Policymakers, analysts and consumer advocates have been raising concerns about the broadband duopoly for some time now. A Congressional Research Service ("CRS") report released in 2006 concluded: "With only limited alternatives to the cable and telephone broadband duopoly for the foreseeable future, and with the cable and telephone companies both pursuing largely the same business plan, the broadband providers might have both the incentive and the ability to exploit their control over access to end users to restrict competition (and the innovation it might bring) and harm consumers." Charles B. Goldfarb, *Access to Broadband Networks*, CRS Report for Congress, at 17 (Order Code RL33496, June 29, 2006). Similarly, Commissioner Adelstein, in his statement regarding the FCC's approval of the merger between AT&T and BellSouth, also noted the cable-telco duopoly, referring to "a market in which telephone and cable operators control nearly 98 percent of the market." *AT&T Inc. and BellSouth Corporation Application for Transfer of Control*, WC Docket No. 06-74, Memorandum Opinion and Order, (Dec. 29, 2006), Statement of Commissioner Jonathan S. Adelstein, Concurring.

Mark Cooper, Director of Research for the Consumer Federation of America, described the cable-telco duopoly in detail in his March 30, 2006 testimony before the United States Senate Committee on Commerce, Science and Transportation during hearings regarding "Competition and Convergence.". Dr. Cooper's testimony is available at http://commerce.senate.gov/pdf/cooper-033006.pdf. Dr. Cooper noted that "there are only two local, last mile communications networks that can provide a fully functional broadband network to the residential consumer – the incumbent local telephone companies and the incumbent cable operators. Two is not a sufficient number to ensure vigorous competition, and both sets of incumbents have a miserable record of anticompetitive, anti-consumer behavior." *Id.*, at 4.

Likewise, Representative Edward Markey, Chairman of the House Subcommittee on Telecommunications and the Internet, decried the nation's broadband, or digital, duopoly at a January 2007 conference, stating, in part, "[t]he second piece of bad news is that broadband service to residential consumers in the United States is dominated by a 'digital duopoly' of two technologies – cable modem and telephone company DSL service . . . the cable industry's cable modem and the telephone companies' DSL technologies are going to be a digital duopoly into residential homes for the foreseeable future. This has implications for affordability, for innovation, and for the need for sensible rules for network neutrality to safeguard the Internet." U.S. Representative Edward Markey, Statement at the Voice On the Net (VON) Conference, Boston, Massachusetts (Jan. 18, 2007), available at http://markey.house.gov/index.php?option=com_content&task=view&id=2116&Itemid=46).

The ILEC-cable duopoly's dominance of the nation's broadband market was more recently discussed at length in a report released by the Century Foundation. *See* John Windhausen, "Building A Stronger America: A Plan to Extend Super-Fast Broadband Connections to All Americans," A Century Foundation Report, at 6-7 (Jan. 27, 2009), available at http://www.tcf.org/Publications/mediapolitics/windhausen, "Building A Stronger America: A Plan to Extend Super-Fast Broadband Connections to All Americans," A Century Foundation Report, at 6-7 (Jan. 27, 2009), available at http://www.tcf.org/Publications/mediapolitics/windhausen.pdf.

interest. As a result, we should expect oligopolistic industries to exhibit a tendency toward the maximization of collective profits, approximating the pricing behavior associated with pure monopoly.²⁸

Of course, ACI's larger point is that "market structure alone is an unreliable indicator of the efficacy of competition" and that the Commission should instead examine "market conduct" and indicators such as "prices, progress, innovation, investment, service diversity, functionality and adaptations to each of these over time."²⁹ Joint Advocates do not disagree that market structure alone should not determine policy. However, it is revealing that despite ACI's recommendation that the Commission examine market conduct and other performance indicators, ACI provides no data regarding such indicators but instead states that it will "review carefully what is provided by advocates with access to the relevant data."³⁰ The only U.S. broadband market information that Joint Advocates have access to is FCC data. And that data shows that there is indeed a duopoly in the provision of broadband internet service. The Commission's National Broadband Plan should be crafted with a full recognition of the highly concentrated, duopolistic nature of the national broadband market. That is not to say, however, that more information should not be collected – either now or in the future – to obtain a more accurate picture of the market. Thus Joint Advocates commend the recent directives from Congress and actions by the Commission to collect more granular information to inform broadband policy-making.³¹

²⁸ Scherer, at 131-57; *see also* Mas-Colell et al., at 387-427.

²⁹ ACI, at 14.

³⁰ ACI, at 15.

³¹ A year ago, the FCC released its Report and Order and Further Notice of Proposed Rulemaking ("FNPRM") in the broadband data gathering docket, WC Docket No. 07-38, which provides a strong foundation for gathering broadband data. *Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscribership Data, and Development of Data on Interconnected Voice over Internet Protocol (VoIP) Subscribership*, WC Docket No. 07-38, Report and Order And Further Notice Of Proposed Rulemaking, (rel. June 12, 2008) ("Form 477 Order"). In its Form 477 *Order*, the Commission significantly modified its broadband reporting requirements and in its FNPRM sought

D. PRIVATE INVESTMENT HAS LED TO INCREASED BROADBAND DEPLOYMENT, BUT IS UNLIKELY TO BE SUFFICIENT ON ITS OWN TO YIELD AN AFFORDABLE NATIONAL BROADBAND NETWORK FOR ALL CONSUMERS.

Joint Advocates do not discount the private sector's successes in extending some form of broadband service to a majority of Americans.³² Technological advances as well as greater consumer demand have made possible the economical deployment of broadband technology in many parts of the country. The opportunity to provide a valued service and receive compensation in return³³ has resulted in the telecommunications and cable industry passing 121 million households and businesses with some form of broadband technology.³⁴ However, a number of commenters exaggerate those successes, on the one hand, and minimize or even ignore altogether any data that contradicts their rosy view of the private sector's ability to deploy high-quality broadband services to all Americans.

So, for example, several commenters argue that private industry has not only done an

adequate job of deploying broadband, but that the Internet, and Americans' access to it,

represents a "triumph of capitalism and the free-market system."³⁵ The same unapologetic self-

confidence leads the Americans for Tax Reform ("ATR") to state: "We are on the right track; the

³⁴ FCC, *High-Speed Services for Internet Access: Status as of December 31, 2007, January 2009, at Table 1.*

comment on several related data gathering issues. The FNPRM is still pending. Shortly after the Form 477 Order's release, Congress passed the Broadband Data Improvement Act ("BDIA"), directing the Commission to, among other things, reassess and improve its broadband data collection efforts. *See* Pub. L. No. 110-385, 122 Stat. 4096 § 103(c) (2008).

 $^{^{32}}$ See, e.g., Comcast, at 2 (referring to the cable industry's investment of \$145 billion in broadband networks since the mid-1990s).

³³ Although telecommunications and cable companies do not typically report a return on investment separately for their broadband services, Verizon Communications, Inc. ("Verizon") noted in a recent investor report that "[r]evenue growth from broadband and video services drove consumer [average revenue per unit] ARPU [in its Wireline division] to \$69.97 in the first quarter 2009, a 13.7 percent increase compared with the first quarter 2008." Verizon Communications, Investor Quarterly - 1Q 2009, at 6 (April 27, 2009). Comcast similarly reported that its High-Speed Internet service earned a net operating profit of \$6.7 billion in FY 2008, and \$1.8 billion in the first quarter of 2009. Comcast Corporation, *Trending Schedules*, "Pro Forma Revenue and Pro Forma Expenses," at 2, available at http://www.cmcsk.com/phoenix.zhtml?c=118591&p=irol-newsArticle&ID=1282445&highlight=.

³⁵ Institute for Policy Innovation ("IPI"), at 3.

free market is working."³⁶ The Commission should discount the "Mission Accomplished" mantra of these free market advocates; clearly, the Commission would not be reviewing comments in this NOI – issued in response to Congress' directive – if deregulatory policies and the private sector had attained adequate broadband access for the citizens of the United States.

Commenters who urge exclusive trust in, and reliance on, the "free market," to meet America's broadband goals simplify and overstate current broadband deployment and ignore both the many areas of the country completely lacking broadband and the consumers who cannot afford it. For example, while Verizon has shown considerable persistence in deploying its fiberbased FiOS service to many urban and suburban areas that *already* had DSL service, it has chosen largely to ignore broadband deployment to its more rural territories. A recent filing states that Verizon deployed broadband to only 60% of the households in rural areas of 14 states.³⁷ Joint Advocates urge the Commission to cut through the self-congratulatory rhetoric found in some comments and arrive at the conclusion that (1) a specific broadband policy is necessary to guide the industry in the face of market failures, (2) government action can spur broadband deployment and affordability, and (3) Commission leadership will not thwart private industry in its efforts to provide services and to earn a reasonable return for its efforts.

While Joint Advocates agree that harnessing the power of the market is desirable,³⁸ it is necessary to face the fact that more than a decade of deregulatory broadband policies has proven inadequate to the task of making broadband technology available to all Americans at reasonable

³⁶ Americans for Tax Relief ("ATR"), at 2.

³⁷ See In the Matter of Verizon Communications Inc. and Frontier Communications Corporation Application for Consent to Assign and Transfer Control of Authority to Provide Global Facilities-Based and Global Resale International Telecommunications Services and to Assign and Transfer Control of Domestic Common Carrier Transmission Lines, Pursuant to Section 214 of the Communications Act of 1934, as Amended, WC Docket No. 09-95, Application (May 28, 2009) at 2: "Today, Verizon's subsidiaries offer broadband to only about 60 percent of the homes and businesses in the communities that Frontier is acquiring."

³⁸ See e.g., ATR, at 3; Competitive Enterprise Institute ("CEI"), at 1; May, at 2.

rates and speeds. Those favoring a *laissez-faire* approach to broadband policy argue in part that government action of any kind would prove disruptive to the plans and investments of private actors in the industry.³⁹ Clearly, any private entity interested in deploying broadband to unserved territory has had more than enough time to do so. It makes no sense to worry about crowding out private investment or discouraging investors⁴⁰ when there is no private investment to crowd out, and there are no investors to discourage. A broadband policy that encourages build-out in unserved areas will benefit these areas and the nation as a whole. Mr. May's concern that a broadband policy contain flexibility that "preserves considerable private sector discretion"⁴¹ is reasonable, but private sector discretion should not be allowed to override the benefits of making broadband available, affordable, and accessible to all Americans.

E. SOME COMMENTS ATTEMPT TO DOWNPLAY THE IMPORTANCE OF RELIABLE AND AFFORDABLE BROADBAND IN TODAY'S ECONOMY.

As NASUCA noted in initial comments, broadband has become basic infrastructure, a key component of a well-functioning and economically flourishing society.⁴² Some commenters such as ATR, however, present a different perspective on the possibility of extending broadband to all Americans, arguing that promoters of broadband ubiquity "seek to reduce the complexities of broadband provision to the model of sewage removal or delivery of drinking water."⁴³

³⁹ *See e.g.*, CEI, at 3-4; May, at 2.

⁴⁰ CEI, at 3-4.

⁴¹ May, at 2.

⁴² NASUCA, at 38. A recent report commissioned by the Internet Innovation Alliance is entitled – and demonstrates – "The Substantial Consumer Benefits of Broadband Connectivity for U.S. Households" (July 2009), accessible at <u>http://internetinnovation.org/library/special-reports/the-substantial-consumer-benefits-of-broadband-connectivity-for-us-househol/</u>.

⁴³ ATR, at 3. *See also* Institute for Policy Innovation ("IPI"), at 13 (arguing that broadband access is not a public good, but rather "almost entirely a collection of private networks that have agreed to exchange traffic for the benefit of their customers.").

Commenters like ATR that seek to downplay the importance of ubiquitous, reliable and affordable broadband service for the nation are simply on the wrong side of history, not to mention the wrong side of the American public and of Congress' and the Obama Administration's clear views on the issue. The fact is, the goal of broadband ubiquity has already been set – the question is not *whether* to seek ubiquity but rather *how* to attain universal broadband availability and use. To solve that question, the Commission should do everything in its power to make the provision of broadband access simple and easily replicable throughout the country. Designing the networks that provide broadband access should be considered similar to designing the systems for the provision of highways, clean water, electricity, public safety, sewage removal and other public goods. Whatever the difficulties that might be encountered in extending the reach of broadband to all areas of the country, they do not diminish the critical importance of doing so.

Some commenters disagree with the tenet that broadband is an essential service along the lines of electricity, water and voice telephone service. But surely progress demands that standards be elevated from time to time: What was once "good enough" eventually becomes substandard, and what was once a luxury becomes the new necessity.

Citizens in colonial America probably did not give much thought to the source of their drinking water or how they disposed of wastes. Now these details of daily life are taken for granted, and no-one questions that clean drinking water and wastewater treatment facilities are basic necessities that our society could not function without.

Similarly, when the telephone was first invented, it was seen by many as a toy or extravagance. The 1930s saw the push to extend voice service to all Americans. And even into the 1980s, touch-tone service was an upgrade for which telephone companies charged.

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Likewise, in the 1960s computers were used only by governments, university researchers and very large companies. Today personal computers are considered almost family members in millions of households around the country.

The benefits of many innovations are not immediately recognized. Eventually, however, these technologies are adopted by the majority and come to be considered "basic." Broadband is no different. It has evolved from a non-public service utilized by universities and government in the 1970s, to a luxury service used by "technology geeks" in the late 1980s and early 1990s, to a basic, indeed indispensable, public service utilized by millions of residential and business users.

The Commission has already recognized that broadband is of the same level of importance as such technologies and deserves due consideration.⁴⁴ Accordingly, the Commission should not allow the debate on broadband policy to be recast to focus on the rights of infrastructure owners to deny or control service. Rather the debate should – and indeed must – focus on ways to encourage or require these owners to extend service to everyone in an economically feasible manner, and failing such efforts, call upon the public sector to complete the extension of broadband service to the entire country.

F. JOINT ADVOCATES SUPPORT CAREFUL ANALYSIS OF "CONSUMER COSTS AND BENEFITS OF ALTERNATIVE COURSES OF ACTION"⁴⁵ BUT WAITING FOR PRIVATE SOLUTIONS IS NOT AN OPTION.

In the supposed name of consumers, ACI provides an economist's primer on consumer welfare, consumer surplus, etc.,⁴⁶ seemingly suggesting that those who seek government intervention inevitably seek frivolous expenditures of public monies and reckless government

⁴⁴ See Copps, Michael J., "Bringing Broadband to Rural America – Report on a Rural Broadband Strategy," GN Docket No. 09-29 (May 22, 2009), at ¶¶ 1-2.

⁴⁵ ACI, at 10.

⁴⁶ *See*, *e.g.*, id. at 7-8.

intervention. Joint Advocates support an honest and open analysis of the costs and benefits and economic repercussions of government involvement in the broadband market – with both proponents and opponents of such involvement challenged to make their cases. That said, such calculations must take into account the positive externalities associated with increased broadband subscribership, and should not be used as an excuse for delay in bringing the benefits of broadband to all citizens, particularly those who are hardest to reach and who are least able to avail themselves of broadband.

Joint Advocates agree that imperfect information thwarts effective investment and decision making.⁴⁷ It is therefore essential that data about both broadband supply (i.e., location, price and speed) and about consumer demand be readily and publicly available and verifiable, and not reside solely with industry.

Moreover, Joint Advocates, while concurring that "[c]onsumers are a diverse lot,"⁴⁸ are unaware of any specific proposals by ACI to address that diversity, such as subsidies for lowincome households, specialized equipment for the disabled, or bringing broadband to areas that lack the service. ACI reiterates basic economics in some areas but ignores other relevant economic precepts:

• Carriers have a legitimate business interest in maximizing profit, which may certainly yield benefits including the billions of dollars of investment that cable and telecommunications companies have made in broadband infrastructure.⁴⁹ However, without adequate competition, there is no assurance that rates will be reasonable or affordable.

⁴⁷ *Id.*, n. 35.

⁴⁸ Id., at 9.

⁴⁹ See, e.g., Comcast, at 31 ("In a largely deregulatory environment, hundreds of billions of dollars of private capital have been invested in competitive broadband networks; over 90 percent of Americans have access to broadband Internet service, usually from multiple competing providers; and consumer adoption has moved at a pace faster than that of practically any new communications product or service in history."); *see also id.*, at 33 ("Since 1996, the cable industry has invested more than \$145 billion to build state-of-the-art broadband networks that provide high-speed connections with download speeds of 20, 50, 60, and 100 Mbps or more.").

• The special access market is not functioning like a competitive market, and, therefore, for the sake of consumers, it is essential that the FCC address exorbitant rates for special access services.

ACI recognizes the "bandwagon" effect associated with the incentives for businesses "to innovate and add new services that will be attractive to existing and new users"⁵⁰ and the positive network externality effects associated with increased subscribership.⁵¹ Joint Advocates concur with ACI that there is a compelling need for a "demand-side focus" for the National Broadband Plan, "including steps to increase computer penetration … and computer literacy."⁵² Joint Advocates urge the Commission, in its National Broadband Plan, to include various demand-side measures, including remedies for, among other things, the diminishing ability of the most isolated members of society to avail themselves of the benefits of broadband, and thereby to connect to the mainstream economy, as disposable incomes dwindle.

G. A NATIONAL BROADBAND PLAN SHOULD GUARANTEE THE RIGHTS OF MUNICIPALITIES TO FILL THE BROADBAND VOID WHEN PRIVATE SECTOR SOLUTIONS ARE NOT FORTHCOMING.

As hinted above, many commenters explicitly or implicitly deplore the idea of public investment in broadband infrastructure.⁵³ To the contrary, Joint Advocates urge the Commission to include state and local governments – particularly municipalities – as key players in the nation's efforts to deploy broadband service throughout the country. Unfortunately, the broadband duopolists have been far too successful in opposing, even killing, the construction and operation of publicly-owned broadband networks.

⁵⁰ ACI, at 25, *citing* Jeffrey H. Rolfs, *Bandwagon Effects in High Technology Industries* (Cambridge, MA: MIT Press, 2001).

⁵¹ ACI, at 25.

⁵²,*Id.* at 24. See, more; *see generally, id.*, at 24-26.

⁵³ See Section II.D.

Bills currently under consideration in the North Carolina General Assembly, for example, would impede the efforts of municipalities to initiate the provision of broadband service to their constituents, even when no private company is willing to provide service. According to a recent news report, the bills -- House Bill 1252 and Senate Bill 1004 -- seek "to prevent municipal governments from installing high-speed broadband or wireless internet service and acting as an ISP, even if commercial ISPs have no plans to offer service to their communities."⁵⁴ Although the House bill is given a seemingly innocent-sounding name, the "Level Playing Field/Cities/Service Providers" bill, critics allege that the proposed legislation was written substantially by incumbent cable and telephone companies to protect their turf by hobbling municipal initiatives.⁵⁵ According to Save NC Broadband.com, incumbent carriers sought the legislation after the city of Wilson, North Carolina, built its own fiber network called "Greenlight."

Greenlight was created to provide the best communication infrastructure for local businesses. Even though we're a small city, we believe our citizens deserve the best service available. We asked the cable/landline companies to provide it and were turned down so we built it ourselves. It was not created to provide competition.⁵⁶

The North Carolina legislation is of a piece with similar misguided state initiatives – undertaken at the behest of, and for the benefit of, ILECs and cable providers – to curtail local governments from filling broadband voids created when the private sector fails to respond to citizens' broadband needs. The FCC is well acquainted with

⁵⁴ See www.dailykos.com (April 21, 2009).

⁵⁵ Save NC Broadband.com (http://savencbb.wordpress.com/about/).

⁵⁶ *Id.* Greenlight provides up to 100 Mbps symmetrical service to households, and up to 1 Gbps service to businesses. A running account regarding the City of Wilson's efforts to create a municipal broadband network – and the duopolists' ongoing efforts to kill it – is available on the Internet. *See, e.g.*, Philip Dampier, "WRAL Raleigh - The Wilson Debate Fast Forwarded to 2009" (April 24, 2009), available at <u>http://test.stopthecap.com/tag/municipal-broadband/</u>.

such short-sighted state efforts to placate the powerful communications lobby, having previously considered a similar law enacted in Missouri.⁵⁷ Moreover, where the communications industry is unable to block municipal broadband service through legislation, it has attempted – time and again – to block such public networks through court challenges. The record is replete with such efforts – from Bristol, Virginia to Monticello, Minnesota..⁵⁸ Thankfully such efforts have generally been unsuccessful in the courts, though one is left to wonder what the societal costs of industry's efforts to block broadband deployment have been, in terms not only of litigation expenses borne by local governments but also the delay in broadband availability engendered by such tactics.

The National Broadband Policy should incorporate all legal and policy measures necessary to ensure that state and local governments have the right to provide broadband, a basic infrastructure, for themselves and their citizens, particularly when the private sector has failed to provide broadband in the local community.

III. OPEN NETWORKS AND OPEN ENTRY ARE CRUCIAL TO A SUCCESSFUL NATIONAL BROADBAND PLAN.

A. INITIAL COMMENTS REVEAL THAT THE "OPEN NETWORKS" QUESTION IS THE KEY DRIVER FOR VERY DIFFERENT VISIONS OF THE NATION'S BROADBAND FUTURE.

The incumbent duopolists and their allied parties -e.g., AT&T, Verizon, Time Warner,

Cisco Systems, Inc. ("Cisco") - are uniformly against open networks, against public sector

⁵⁷ See Nixon v. Missouri Mun. League, 541 U.S. 125 (2004) (upholding the Commission's declaratory ruling that the state's law was not expressly preempted by 47 U.S.C. § 253; see Missouri Municipal League, 16 FCC Rcd 1157 (2001). In its 2001 order, the Commission relied on an earlier decision resolving a challenge to a comparable Texas law. See Public Utility Commission of Texas, 13 FCC Rcd 3460 (1997), aff'd, Abilene v. FCC, 164 F.3d 49 (D.C. Cir. 1999).

⁵⁸ See, e.g., Jim Hu and Marguerite Reardon, "Cities Brace for Broadband War," *CNET News* (May 2, 2005), available at <u>http://news.cnet.com/Cities-brace-for-broadband-war/2009-1034_3-5680305.html?tag=mncol;txt;</u>

broadband infrastructure, and against the imposition of any non-discrimination rules that would limit or prevent vertically integrated network operators from "managing" (*i.e.*, controlling or restricting) services, applications and content made available over their networks.⁵⁹ As noted above, Joint Advocates have a healthy respect for the generative power of market forces and acknowledge that there are unavoidable questions around the issue of what is legitimate network management, a subject they address below. However, Joint Advocates believe that it would be a fatal mistake were the Commission to fail to address the potential for dominant broadband providers to abuse their significant market power and thereby sap the Internet, which was after all built on an historically neutral and open network, of its vitality and innovation.⁶⁰

At bottom, the incumbents' view of the broadband future is premised on their notion of facilities-based competition as the preferred, if not exclusive, model for delivery of broadband service. For example, AT&T belittles "non-facilities-based competition" as "synthetic" and considers it something to be avoided.⁶¹ Similarly, the National Cable and Telecommunications Association ("NCTA") declares that the FCC should promote "continued private sector investment and facilities-based competition among broadband platforms."⁶² The imposition of open access and net neutrality requirements, the incumbents claim, would be anathema to the purportedly vibrant competition in the broadband market and further investment in such facilities.

⁵⁹ Typical of this approach is Time Warner's view that "competitive market forces and existing safeguards" are sufficient to "insure that broadband providers adhere to open network principles." Time Warner, at 26; *see also* Qwest Communications International ("Qwest"), at 16-25.

⁶⁰ Even AT&T tacitly recognizes this power by characterizing the historical Internet as an "open ecosystem." AT&T, at 100. As pointed out below, this *status quo ante* changed when this Commission issued its cable and wireline modem decisions.

⁶¹ AT&T, at 3, 77 ("the best way to promote risk-taking, investment, and innovation is to create a stable deregulatory environment that promotes *facilities-based* intermodal competition") (emphasis in original).

⁶² NCTA, at 48.

AT&T goes so far as to turn history on its head by declaring that "common-carrier regulation would deter the free-wheeling experimentation that is at the heart of the Internet's success."⁶³ It was precisely the substrate of a common-carrier system that was "dumb in the middle," with users on the edges able to develop innovative applications and content, that led to the explosive early growth of the Internet.⁶⁴ Indeed, distinctions between the public switched telephone network ("PSTN") and broadband are increasingly questionable, as reflected in the discussion below of unbundled network elements ("UNEs") and special access lines. Both of these subjects are emanations of the 1996 amendments to the Federal Communications Act as applied to the PSTN, yet both have also become central to the debate on open broadband networks. Not only is this where we are heading, it is where we have been.

The incumbents' view is starkly different from the vision of those who hearken back to the Internet at its birth, and through much of its history, where the open, "end-to-end," "generative" characteristics of the network ushered in unparalleled creativity. In this group are municipalities (represented by the National Association of Telecommunications Officers and Advisors ["NATOA"]),⁶⁵ public interest groups such as Free Press and NASUCA, and even in certain respects smaller network operators and larger competitive carriers.⁶⁶

A number of commenters joined with NASUCA in advocating various forms of separation between the underlying transport network and the network services, applications, and

⁶³ AT&T, at 113.

⁶⁴ Kevin Werbach, *Off the Hook*, draft article forthcoming in Cornell Law Review (2010), available at <u>http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1371222</u>, at 4 (citing work of Lawrence Lessig, Jonathan Zittrain, Barbara van Schewick, and Yochai Benkler), *cited in* NCTA, at 33.

⁶⁵ See, e.g., NATOA, at 36 ("openness is emerging as a competition-enhancing strategy for economic development").

⁶⁶ See, e.g., Kodiak Kenai Cable Co., LLC ("Kodiak"), at 15 ("backbone networks serving rural areas should be operated on a carrier-neutral basis, with the transport providers not offering retail service"); *see also* the groups belonging to the "no chokepoints" coalition, at <u>http://www.nochokepointsblog.org/</u> and Big Think Strategies, at 118.

content that ride on that network.⁶⁷ A variant of this is the plea of the National Telecommunications Cooperative Association ("NTCA") that "all vertically integrated Internet backbone and special access (middle-mile) transport provider rates ... be cost-based and nondiscriminatory."⁶⁸

In their argument that a hands-off, deregulatory approach would promote competition, the incumbents do not explain how that "competition" (largely between cable and telephone company duopolists) will be immune from the inherent conflicts of interest between the vertically integrated network owners and all others who want to use that network. The duopolists fail to address, for example, how non-facilities-based competitors like Netflix will be treated, when its video-on-demand service starts to significantly eat into the market share of the duopolists' video-on-demand services.

Incumbents are also silent on the question of just how many facilities-based platforms even the most concentrated of markets could support.⁶⁹ Despite the fact that there is a *de facto* duopoly (if not monopoly) for broadband transport in most parts of the country, the incumbents continue to encourage the fiction that consumers can "vote with their feet" and "quickly abandon any broadband provider that failed to satisfy their demands for openness."⁷⁰

⁶⁷ See, e.g., *id.*; Free Press, at 79 and fn. 105 (referencing British Telecom's "Undertakings" – *compare* NASUCA, at 63-65); see also Wired.com, at [2].

⁶⁸ NTCA, at 36.

⁶⁹ Compare WIK Consulting, *The Economics of Next Generation Access*, Executive Summary ¶ 9, available at <u>http://www.wik.org/content_e/ecta/ECTA%20NGA_masterfile_2008_09_15_V1.pdf</u> (concluding that fiber deployment "is not profitable in any of the six countries analyzed on the basis of current costs.").

⁷⁰ Verizon, at 85. While the ISP/broadband market may experience some competition, the offerings of the ISP are often contingent on what the underlying transport provider offers. If there are effectively only one or two network operators, the claimed consumer freedom is more illusory than real. In some markets, backhaul for instance, the incumbents have close to a monopoly.

B. SOME COMMENTS MISINTERPRET THE NEED FOR NET NEUTRALITY AS AN ATTACK ON THE RIGHTS OF BROADBAND ACCESS PROVIDERS.

NASUCA and Rate Counsel explained at length in initial comments why a policy of nondiscrimination, or net neutrality, must be incorporated in the Commission's National Broadband Plan.⁷¹ Specifically, NASUCA pointed out that "[t]he threat to open networks (*i.e.*, the common carrier or end-to-end model) comes primarily from vertically-integrated carriers seeking to market content (or services) along with their basic transport function."⁷² Predictably, the incumbents' comments reject any limitations on such integration, without ever addressing the underlying conflicts of interest or incentives to abuse their market power.⁷³

Although people mean different things by net neutrality, at its core it necessarily includes the reinstatement of the non-discrimination provisions on which the Internet was built (*i.e.*, before the FCC's 2002 "cable modem" and 2005 "DSL modem" decisions⁷⁴). This reinstatement can occur in a number of ways: by simply reversing the cable and DSL modem decisions and reinstating the Title II non-discrimination requirements that they effectively eliminated;⁷⁵ by reconstructing such Title II protections under Title I, through the "four freedoms" or other

⁷¹ NASUCA, at 53-62; Rate Counsel, at 54-62.

⁷² NASUCA, at 57.

⁷³ AT&T, at 104 (invoking the threat that any sort of net neutrality regulation "would almost certainly delay broadband upgrades"); Verizon, at 6-7 ("vertical contracting … and sophisticated pricing" should be allowed).

⁷⁴ In the Matter of Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, FCC No.02-77, 17 FCC Rcd 4798 (2002) ("cable modem" decision, holding that cable modems belonged in their entirety to the "information service" category, and therefore not subject to the telecommunications common carriage requirements of Title II of the Communications Act), *aff*"*d* sub nom. Nat'l Cable & Telecomms. Assn v. Brand X Servs., 545 U.S. 567, 125 S.Ct. 2688 (2005) ("Brand X"). Shortly after the FCC's cable modem decision was ratified by the Supreme Court's Brand X decision, the FCC extended broadband deregulation to DSL modems. In the Matters of Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, FCC No. 05-150, 20 FCC Rcd 14853 (2005) ("DSL modem" decision).

⁷⁵ The Supreme Court, in upholding the Commission's "cable modem" order did not endorse the Commission's legal, factual or policy positions in that order, but rather merely "deferred" to the Commission's decision in accordance with *Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984).

devices; or by invoking the interconnection provisions of 47 U.S.C. §§ 251-52, as Kevin Werbach urges.⁷⁶

Several of the incumbent duopolists and their allies repeat arguments against net neutrality that the Commission has rejected over the past two years. The argument that prioritizing certain data running over the Internet is essential ⁷⁷ has been rejected, for example, when used as a cover for discrimination against unwanted content.⁷⁸

AT&T also argues *ad horrendum* that the approach of Free Press and other network neutrality proponents would make impossible even the most reasonable network management techniques, including those that in no way discriminate against content.⁷⁹ This misstates the locus of debate: The NTIA's and RUS' recent Notice of Funds Availability ("NOFA"), while providing that applicants for funds must provide broadband service in a nondiscriminatory fashion using "application-neutral bandwidth allocation," also allows for "managed services such as telemedicine, public safety, communications, and distance learning, which use private network connections for enhanced quality of service, rather than traversing the public Internet."⁸⁰ It is clear, then, that it is possible (and perhaps necessary) to allow service providers to offer a guaranteed level of service to certain customers who require it, while at the same time providing

⁷⁶ Werbach, *Off the Hook, supra*. Werbach sees the four freedoms as a dubious if not untenable legal basis for achieving neutral networks, and would instead simply apply the non-discriminatory interconnection provisions of 47 U.S.C. §§ 251-52. *Id.* at 51-55.

⁷⁷ ATR, at 3. According to ATR, one of the most important reasons to reject government action and the "public utility approach" to broadband is "the absolute necessity of prioritizing, and otherwise actively managing one quantum of data versus another." *Id.*

⁷⁸ Formal Complaint of Free Press & Public Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications, File No. EB-08-IH-1518; Broadband Industry Practices; Petition of Free Press et al. for Declaratory Ruling That Degrading an Internet Application Violates the FCC's Internet Policy Statement & Does Not Meet an Exception for "Reasonable Network Management," WC Docket No. 07-52, Memorandum Opinion and Order, FCC 08-183 (Aug. 20, 2008).

⁷⁹ AT&T, at 104-115.

⁸⁰ RUS/NTIA NOFA (July 2, 2009), 74 Fed. Reg. 33111, at 29.

broadband access to the general public in a way that neither favors nor disfavors any particular service, application, provider or content – the essence of net neutrality.

Joint Advocates note that the line between reasonable network management and content discrimination becomes much brighter and easier to draw when the underlying transport provider is *separated* from the voice, data, broadband, video, audio, and other services that ride on, and depend on, that transport service.⁸¹ There is a growing understanding among key stakeholders that some sort of separation is necessary to solve the thorny issues of potential discrimination that arise when a vertically integrated network provider offers both transport and applications/services/content on the transport medium.⁸²

Incumbents and their allies also haul out the old canard that net neutrality requirements – like other forms of regulation -- would "have the effect of deterring investment and chilling innovation."⁸³ This argument disregards the fact that nondiscrimination was the *de facto* standard until the cable and DSL modem decisions, and that the investment already in place occurred largely in that environment. Title II's non-discrimination standard, under which broadband operated in the pre-*Brand X* era, clearly did not deter investment. Similarly, the functional separation imposed by Britain's Office of Communications ("Ofcom") on British

⁸¹ See NASUCA, at 59 ff (discussion of functional separation).

⁸² See, e.g., Kodiak, at 15 ("transport providers not offering retail services"); Public Knowledge, Media Access Project, The New America Foundation, and U.S. PIRG ("Public Knowledge, *et al.*"), at 22 (quoting European Commission's Viviane Reding's statement that functional separation provides "an incentive structure [that is] clearer and more operational" in providing "guarantees of non-discrimination"); NATOA, at 30 ("Commentors believe that open access means that an independent service provider without an ownership stake in the network has non-discriminatory access to the incumbent network components … In an open network, the network owner may or may not itself provide services, but does sell wholesale access …").

⁸³ May, at 2. See also opposition by the Chamber of Commerce of the United States of America ("US Chamber") to the adoption of open access rules or net neutrality, because the FCC's Internet Policy Statement "seems to be working." US Chamber, at 4; *see also* AT&T, at 103 (neutrality proposals "undermine the Commission's and the nation's most pressing objectives ... expanding deployment of broadband facilities and investment in related technologies"); Verizon, at 88 ("non-discrimination' obligation or other common-carrier-like requirements on broadband providers would ... harm consumers limiting consumer choice and chilling innovation and investment").

Telecom ("BT") discussed at length in NASUCA's initial comments) has not deterred investment.⁸⁴ Nor is there any reason to believe that an explicit policy on net neutrality will deter the investment required to extend broadband facilities to unserved – and underserved – America, other than the threats of the incumbents. As noted elsewhere in these comments, AT&T and others have not delivered on their promises to deploy broadband more quickly or widely in exchange for less regulatory oversight or obligations. Accordingly, their claims that net neutrality will deter their nonexistent investment should be ignored.

Similarly, telecommunications carriers argue that any municipal involvement in broadband (see discussion below) necessarily puts into government's hands the power of censorship,⁸⁵ while apparently blind to the danger of their own (private) censorship. Net neutrality prevents the providers of communications infrastructure – public or private – from "editing" the flow of information. Without such nondiscrimination requirements, broadband infrastructure owners who are also broadband service or content providers have every incentive to pursue affiliate relationships and to profit from making certain applications run better than others. Consumers would be at the mercy of their Internet service providers ("ISPs") (and of their ISPs' transport providers); innovation in online services would be stifled. It would be imprudent to give service providers *carte blanche* in determining what online services function most easily via their infrastructure.

In addition, AT&T offers a particularly odd argument in support of its claim that the Commission's *Internet Policy Statement* has been "more than sufficient to ensure compliance"

⁸⁴ See NASUCA, at 59 *ff.* Indeed, functional separation is a structural form of achieving non-discrimination, a sort of non-discrimination "and we really mean it."

⁸⁵ IPI, at 9.

with its principles and to foster an open Internet,⁸⁶ and that tougher rules ensuring net neutrality are not needed. In support of this argument, AT&T observes that "in the ensuing four years, the Commission has found it necessary to enforce the principles in the *Internet Policy Statement* only *twice*,"⁸⁷ once to stop a rural carrier from blocking its customers from using certain VoIP services provided by other entities, and again to prevent Comcast from unreasonably interfering with its customers' use of certain peer-to-peer applications. These enforcement actions refute, rather than support, AT&T's argument.

That the Commission – a body often criticized for infrequent or dilatory enforcement actions – was compelled to take two major enforcement actions in less than four years to stop broadband network operators from using their control of the network to "manage" (*i.e.*, block or degrade) other providers' traffic over that network, makes clear the need for clear, enforceable regulations limiting network operators' ability to unreasonably discriminate against other providers' services or content, or otherwise abuse their ownership position to the detriment of their customers or competitors. Significantly, Comcast appealed the Commission's order against it to the federal appeals court (after it worked out "solutions" to the "network management issue" with BitTorrent), and this appeal is still pending. Moreover, highlighting the importance of the continuing dispute over the Commission's cease and desist order to Comcast, Joint Advocates note that NBC Universal, Inc., NCTA and Qwest have intervened in support of Comcast's appeal

⁸⁶ AT&T, at 98, *citing Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Policy Statement, 20 F.C.C.R. 14986 (2005) ("*Internet Policy Statement*"); *see also* U.S. Chamber, at 4 (opposing the adoption of open access rules or net neutrality, because the FCC's *Internet Policy Statement* "seems to be working"); Verizon, at 88.

⁸⁷ AT&T, at 98 (emphasis in original), discussing Formal Complaint of Free Press and Public Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications, Memorandum and Order, 23 F.C.C.R. 13028 (2008) ("Comcast P2P Order"), pet. for review filed sub nom. Comcast v. FCC, No. 08-1291 (D.C. Cir., filed Sept. 4, 2008); Madison River Commc'ns, LLC, Order, 20 F.C.C.R. 4295 (2005). AT&T correctly notes that the Commission's decision in Madison River pre-dated the Internet Policy Statement by several months, but was premised on the same fundamental principles found in the Internet Policy Statement.

(Consumers Union, Consumer Federation of America, Vuze, Inc., Open Internet Coalition, Free Press and Public Knowledge have intervened in support of the Commission). Comcast's pending appeal again reinforces the need to give the *Internet Policy Statement*'s principles the force and effect of law, by adopting them – in expanded and clarified form – as regulations.

Telecommunications carriers and their allies argue that any municipal involvement in broadband (see discussion below) necessarily puts into government's hands the power of censorship,⁸⁸ while apparently overlooking the danger of private censorship. Net neutrality prevents the providers of communications infrastructure -- public **or** private -- from "editing" the flow of information. Without a nondiscrimination provision, infrastructure providers have every incentive to pursue affiliate relationships and to profit from making certain applications run better than others. Consumers would be at the mercy of their Internet service providers ("ISPs") (and of their ISP's transport providers); innovation in online services would be stifled. It would be imprudent to give service providers a carte blanche to determine what online services function most easily via their infrastructure.

While Joint Advocates agree that a National Broadband Plan should encourage market innovation and consumer choice, they caution the FCC that the pursuit of such experimentation and choice should not preclude careful monitoring of suppliers' traffic management and pricing behavior. The Commission should be skeptical of claims (like Verizon's) that the existing and growing number of competitive broadband options available for consumers allow reliance on consumer choice to guide the development of broadband and the Internet.⁸⁹

A fundamental flaw in Verizon's argument is its unfounded belief that sufficient competition exists to protect consumers. As argued above and in NASUCA's Initial Comments,

⁸⁸ See, e.g., IPI, at 9.

⁸⁹ Verizon, at 36.

Verizon's underlying premise of "consumer choice" in facilities-based carriers is illusory because of the persistent lack of competition in the facilities' market. Moreover, this purported competition is, in any event, insufficient to drive transparency, meaningful disclosure, or meaningful choice.⁹⁰ Similarly, Verizon's assertions that some consumers may benefit from a usage-based model fail to consider the clear conflicts of interest inherent in deciding whether Verizon's own products or services would be covered within the usage caps.⁹¹ Verizon's reliance on a notion of "consumer choice" that is divorced from marketplace realities is also evident in its claim that some customers may choose an advertiser-supported Internet access service in exchange for lower monthly costs, or that others might prefer more highly managed Internet access services that provide additional layers of security.⁹²

Such broad assertions that "consumer choice" will promote the development of broadband technology, benefit consumers, and encourage continued innovation and investment,⁹³ demand the questions: Under what criteria or metrics will these "benefits" be measured? How is the Commission, Congress, or a consumer to determine whether Verizon, AT&T, Time Warner, etc., have invested the dollars in the system that they previously promised? Will the "consumer choice" be primarily from a menu offered by the vertically integrated network provider, or will it truly be determined by the consumer, without filtering or preference?

⁹² Id.

⁹⁰ Id..

⁹¹ Id.

⁹³ *Id*. at 44.

The comments of Qwest⁹⁴ and AT&T⁹⁵ follow this same flawed line of reasoning by presuming a robust state of competition in the broadband services market, without considering the facilities duopoly (and in certain markets, monopoly) and its constraining effects on such competition. Their conclusion that there is no need for proscriptive "open network" regulations, again assumes a non-existent world of robust competition. As the analogous special access debate recently demonstrated, many of the supposed competitors are chafing at the *de facto* market power and limitations imposed by the ILECs.

Joint Advocates focus here on the market for facilities-based broadband transport. Joint Advocates (and most public interest commenters) justifiably do not share the incumbents' simplistic faith in this market to preserve the choice that has inherently and historically been the hallmark of the Internet.⁹⁶ Although Joint Advocates welcome diverse technological platforms, all of the platforms urged as viable intermodal competitors to the incumbents require, at some point in their operation, essential transport inputs that only the incumbents can provide.⁹⁷

The prospect that some of tomorrow's broadband network will be built with public "stimulus" money raises a related set of issues. Federal monies represent public investment, and when the public pays for broadband infrastructure, the public rightly expects that it, rather than private corporations, will benefit from that investment. This means, at a minimum, consumers have real choice in the marketplace and competing providers of service and content will have

⁹⁴ Qwest asserts that there is no need for additional Internet regulation and that additional regulation of the Internet will only inhibit broadband infrastructure investment and place the entire burden of such investment on end users. Qwest, at 23; *see id.* at 16.

⁹⁵ AT&T, at 98, 130.

⁹⁶ Rate Counsel, at 58; NASUCA, at 74. By way of comparison, Joint Advocates note that the similarlyconcentrated voice market has failed to protect customers from unreasonable price increases for basic telephony.

⁹⁷ This point is driven home by the presence in the nochokepoints.org coalition of both wireless carriers like Sprint, and cable-based telecommunications providers like Time Warner. *See* discussion in Sections III.E. and F.

real access to those consumers.⁹⁸ It is appropriate that networks built or augmented using public funding be subject to open access rules, and even required to offer access or capacity to all market participants on cost-based, non-discriminatory terms.⁹⁹

C. DISCRIMINATION AND TRAFFIC MANAGEMENT

As discussed above, the question of what is legitimate traffic management and what are unfairly discriminatory practices remains a central issue in formulating an appropriate National Broadband Plan. The misnamed American Consumer Institute, representing the incumbents' interests rather than any consumer, defends providers' ability to discriminate (i.e., "differentiate") among products, services, and rates at length.¹⁰⁰ Not surprisingly, so does Verizon.¹⁰¹

Joint Advocates urge the Commission to closely monitor discrimination and management issues, particularly where the delivery of Internet traffic favors a carrier's own or affiliated traffic over that of other carriers or unaffiliated service providers. This type of discrimination would be evidence of abuse of market power.

Time Warner, for example, has been conducting trials of metered billing for Internet access, which raises questions about whether Time Warner's terms and conditions for broadband Internet access – including metering, bandwidth caps, and other terms of service – should apply to Time Warner's own commercial traffic (*e.g.*, video on demand) relative to others' traffic.¹⁰² Those questions are eminently reasonable and well-founded, as Gigi B. Sohn, President and co-

⁹⁸ Rate Counsel, at 45; NASUCA, at 37.

⁹⁹ Rate Counsel, at 45; NASUCA, at 74.

¹⁰⁰ ACI, at 40-51.

¹⁰¹ Verizon at 2, *passim* ("network management, vertical contracting ... and sophisticated pricing can all play important roles ...").

¹⁰² TR Daily, June 1, 2009. See also, Public Knowledge, et al. at 7-9.

founder of Public Knowledge noted in describing the new Time Warner Terms of Service

("TOS"):

The new TOS carves out for Time Warner the right to use any amount of bandwidth the company chooses for its services, but puts its customers at risk if they use the Internet for services that may compete with Time Warner, such as video or telephone-like services. The new TOS also allows for "the prioritization of TWC commercial subscriber traffic." Congress, the Federal Communications Commission and the Federal Trade Commission should each be concerned with how Time Warner is offering its cable modem services, and should conduct inquiries to determine the extent to which they hamper the free flow of information online and to which they are anticompetitive. In addition, even though Time Warner has said it would not pursue bandwidth caps on consumers, the TOS clearly leaves open that possibility, opening questions whether the company is adhering to deceptive trade practices. We hope the FTC will make inquiries along this line as well.¹⁰³

Regardless of whether network management and differential pricing are applied, the key

issue is whether **undue or unreasonable** discrimination is occurring, and whether the incumbent network owners are discriminating in favor of their own commercial traffic vis a vis competitors that must use those networks. Joint Advocates thus disagree with Time Warner, which insists that competitive market forces and existing safeguards are adequate to ensure open network principles.¹⁰⁴ Similarly, Cisco's assertion that "highly managed networks" are essential to certain applications must also be taken with not just a grain, but rather a shakerful of salt. Such skepticism is justified when Cisco's own marketing materials explain how networks can be "managed" (and its devices deployed) not for consumer benefit but for the network operator's "top-line revenue growth."¹⁰⁵

Other commenters echo Joint Advocates' recommendation that the National Broadband Plan must ensure that networks are, and remain, open. For example, the Benton Foundation

¹⁰³ Public Knowledge Press Release, June 1, 2009, available at: http://www.publicknowledge.org/node/2252.

¹⁰⁴ Time Warner, at 25-26.

¹⁰⁵ Compare Cisco, at 17; Cisco whitepaper quoted at NASUCA, p. 58, fn. 148.

recommends that the four freedoms established in the Commission's *Internet Policy Statement* – to access content, to run applications, to connect devices, and to enjoy "competition among network providers, application and service providers, and content providers" – must be incorporated in its National Broadband Plan.¹⁰⁶ The question remains, however: Is this enough to ensure open networks? The answer appears to be no.

For example, authorities such as Kevin Werbach believe that such precatory rules are insufficient legal bases even for the actions the Commission took with its recent *Comcast P2P Order*.¹⁰⁷ Instead, bright-line, easily understood, and easily enforced rules are needed, with clearly defined consequences that will deter discriminatory behavior. Experience has taught Joint Advocates that the same carriers that now say that general principles and *post-hoc* enforcement are adequate¹⁰⁸ will be the first to argue, when served with a complaint for misconduct, that the rules were not sufficiently clear *a priori*.¹⁰⁹ As discussed elsewhere in these comments, there is an abundance of evidence that, left to their own devices, broadband carriers such as AT&T, Verizon and the cable companies will place unreasonable limitations on the ability of other service providers and users to develop and utilize unique applications and services, thereby stifling broadband innovation.

Furthermore, Joint Advocates agree with AdHoc that "[i]f the market has failed to make broadband Internet service available in communities, the Commission should be skeptical of provider claims that they will deploy the service if the Commission assures them that it will not impose 'open access' requirements. Duopolists' string of broken promises suggests that

¹⁰⁶ Benton Foundation, at 39. Note that the FCC has here identified separable and discrete markets.

¹⁰⁷ Off the Hook, supra, at 17-21.

¹⁰⁸ AT&T, at 98.

¹⁰⁹ See, e.g., Pacific Bell Wireless v. CPUC, 140 C.A.4th 718, 750 (2006) (arguing that the due process rights of this wireless carrier, now an AT&T affiliate, were violated by enforcement of vague and ambiguous law).

regulatory compromises and inducements fail to produce the promised investments.¹¹⁰

D. MUNICIPALITIES CAN SPONSOR OR PROVIDE IMPORTANT PIECES OF A NATIONAL BROADBAND SYSTEM.

Joint Advocates note the relative paucity of comments filed by municipalities in this proceeding. Many large cities – New York and San Francisco, for example – did not file at all (even if they filed in the NTIA/RUS Broadband Technology Opportunity Program proceeding), or they filed primarily or exclusively under the umbrella of NATOA (*i.e.*, Los Angeles, Portland, Seattle).

Some commenters suggest that the reason for this might be that the municipalities are concerned after the Supreme Court's decision in *Nixon v. Missouri*, which essentially approved of state preemption of municipal broadband.¹¹¹ Some commenters see a need for federal intervention in support of municipal networks, be it FCC preemption of state laws that prohibit municipal broadband,¹¹² or federal legislation specifically authorizing municipal deployment.¹¹³

Municipalities can contribute in at least three ways to a robust broadband network: by building or sponsoring wireless broadband systems (although many of these efforts apparently have fallen by the wayside); by building or sponsoring wireline (even fiber) networks; by providing subsidized broadband service to low-income and groups through the use of municipally-owned or -controlled facilities; and by actively facilitating and requiring that dark

¹¹⁰ AdHoc, at ii.

¹¹¹ Broadband Institute of California ("BBIC"), at 9, citing Nixon v. Mo. Mun. League, 541 U.S. 125 (2004).

¹¹² Public Knowledge, et al., at 46-47, citing Note (Dunne), Let My People Go (Online): The Power of the FCC to Preempt State Laws that Prohibit Municipal Broadband, 107 Colum. L. Rev. 1126 (2007).

¹¹³ BBIC, at 9. Federal legislation could authorize federal broadband much the same way the 1984 Cable Act authorized municipalities to require public, educational and governmental ("PEG") access channels on cable television – in fact, municipal broadband avoids many of the tricky constitutional issues with requiring PEG access (or leased access, or must carry).

fiber and empty conduit be used for the provision of this service.¹¹⁴ As Public Knowledge, *et al.* indicates, however, some incumbents have attempted to use "acceptable use policies" to limit municipalities' use of dark fiber and empty conduit to build out their own systems.¹¹⁵

The Commission could assist municipalities' efforts at opening up new last-mile and middle-mile broadband delivery paths by instituting a survey or inventory of dark fiber and empty conduit in major metropolitan areas, much like the survey San Francisco has already prepared,¹¹⁶ and similar to the frequency survey the Commission has considered.

Naturally, there has been strong industry resistance to municipal broadband networks. The incumbents argue that municipal entry into the broadband market creates an unlevel playing field, but the public (not necessarily state) entity operating such networks would presumably be subject to unfair business practice laws like any other market actor.¹¹⁷ Public-private competition exists in other industries, like mail delivery; there is no reason it could not exist in the broadband context either. Moreover, if the industry (as widely reported) is less than willing to compete for broadband stimulus monies under the American Recovery and Reinvestment Act ("ARRA") because of open network requirements, then municipalities intent on open and neutral networks effectively have no choice but to build their own networks.

¹¹⁴ See San Francisco feasibility study Fiber Optics for Government and Public Broadband, at http://www.sfgov.org/site/uploadedfiles/dtis/tech_connect/SFFiberFeasibility.pdf. As San Francisco points out, "Opportunities for cost-effective installation of fiber arise each day as City crews work in the right-of-way." *Id.* at 9. Such "fiber-in-the-sewer" proposals have met with substantial resistance from incumbent telecommunications

and broadband providers.

¹¹⁵ Public Knowledge, *et al.*, at 46. Compare San Francisco feasibility study, *supra*, at 30 (empty cable conduit "limited to public, educational, and governmental applications").

¹¹⁶ The feasibility study, *supra*, catalogs empty conduit and dark fiber, noting whether such transport paths are "conditioned" or not. *Id.* at 30-46.

¹¹⁷ See, e.g., Public Knowledge, et al., at 47 (noting that Nixon did not extend to municipally-owned, independently chartered corporations); Dingwall, Municipal Broadband: Challenges and Perspectives, 59 Fedl Comm. L.J. 67 (2006); compare FTC, Municipal Provision of Wireless Internet, Staff Report, September 2006, available at http://www.ftc.gov/os/2006/10/V060021municipalprovwirelessinternet.pdf, at 42, noting various proposed legislation that "would allow municipalities to offer broadband Internet services but also require that they deal with other firms in a non-discriminatory manner."

Industry-friendly advocacy groups like IPI¹¹⁸ also argue that municipally-owned infrastructure would "invite the ominous threat of government content control,"¹¹⁹ and state further that:

This is why, with rare exception, government entities in the United States do not own or operate radio stations, television stations or newspapers of general circulation... Once government controls the distribution of broadband, the channel for communications, control of content is nearly an unavoidable next step. It is a dangerous direction to travel.¹²⁰

Government ownership of the infrastructure no more implies control of content than public ownership of the highway system dictates the make and model and contents of automobiles that travel upon it -- other than for public safety. In any event, other countries have pioneered communication entities that are "neither state nor private," where constitutional prohibitions against government censorship remain very much alive.¹²¹ Whatever legal form municipalities might choose to hold and operate publicly-funded broadband networks, such networks could easily be constructed and operated so as to insulate the entity from local politics. If a stateaffiliated entity operated broadband, it would remain subject to the First Amendment.

E. CONTRARY TO THE ASSERTIONS OF SOME, AN EFFECTIVE UNBUNDLING OF NETWORK ELEMENTS IS AN ESSENTIAL PART OF A NATIONAL BROADBAND PLAN.

The ILECs and their allies seek to use this proceeding to extend their successful efforts to

eviscerate unbundled network access, an approach that a larger body of commenters concede has

¹¹⁸ See <u>www.ipi.org</u>.

¹¹⁹ IPI, at 9.

¹²⁰ Id.

¹²¹ See, e.g., Witteman, Constitutionalizing Communications: The German Constitutional Court's Jurisprudence of Communications Freedom (forthcoming 2010, HASTINGS INT'L & COMP. L.R.); West German Television Law: an Argument for Media as Instrument of Self-Government, 7 HICLR 145, 176-77 (1983) (describing public broadcasting entities that are neither state nor private). Municipal cable cooperatives, insulated from local political bodies, would be a variation on this theme.

failed to deliver a vibrant and competitive market for broadband access across the United States.¹²² Advocates of deregulation like IPI assert that:

Policymakers should recognize unbundling efforts as failed and as a mistake, and should resist the call of activists to return to an unbundling scheme for broadband networks. To impose unbundling requirements now on broadband networks that were built under the assumption that they would be free of such requirements would not only enormously devalue the existing broadband infrastructure, but would almost certainly result in another wasted decade of legal challenges.¹²³

The Commission should dismiss this type of fear-mongering. As NASUCA's initial comments pointed out, a much *more complete* form of unbundling – the Ofcom/BT functional separation model – has led *not* to the devaluation of existing broadband infrastructure, but to increases in revenue for the incumbent and increased market competition among CLECs and ISPs.¹²⁴

The Commission can also look to its own experience in the past decade. Unbundling requirements were never developed sufficiently to provide an opportunity for competitors to successfully enter the marketplace for broadband services. Instead, we have experienced what NATOA calls the "virtual nullification of the pro-competitive provisions of the 1996 Telecommunications Act ... such as line sharing and access to unbundled network elements..."¹²⁵ As unbundling requirements were eliminated, nascent competition disappeared, and Internet access and other telecommunications at the retail level were consolidated under regional powerhouses.

¹²² The groups assembled under the coalition umbrella of nochokepoints.org, an organization that points to the failures of the 1996 Act's unbundling policy, which have left the ILECs with a stranglehold on the supposedly competitive public telephone network, include a wide array of telecommunications stakeholders, from wireless carrier Sprint to the cable carrier Time Warner -- both "intermodal" competitors in the ILECs' parlance -- to various public interest groups. See http://www.nochokepointsblog.org/.

¹²³ IPI, at 8. See also Verizon, Attachment 1, Declaration of Michael L. Katz, at ¶¶ 13- 18, asserting that various forms of vertical contracting, integration and exclusivity arrangements "can promote investment in both network infrastructure and complementary equipment and applications" (at ¶ 15), and opposing mandatory facility sharing.

¹²⁴ NASUCA, at 59 ff.

¹²⁵ NATOA, at 18.

If the Commission chooses to reinstate unbundling requirements for last-mile broadband infrastructure, competition will not appear overnight; it will only emerge when incumbents provide access to the network and network elements at something approaching cost-based rates. As the Ofcom/BT model shows, that unbundling will not harm infrastructure owners: BT in fact saw an additional stream of revenue derived from the lease of network elements.¹²⁶

XO Communications, LLC ("XO") can serve as one example of a competitive carrier that finds itself limited by the incumbents' control of key network elements.¹²⁷ XO indicates that its products have the capability of providing the high-speed dedicated transmission links that are needed to serve mobile wireless cell sites, but that the Commission's orders have precluded carriers from obtaining access to the UNEs necessary to provide this essential input to mobile wireless services.¹²⁸ According to XO, this restriction not only forces wireless and other carriers to use overpriced special access services to reach base stations, but also eliminates a potentially effective constraint on an ILEC's exercise of Phase II pricing flexibility to increase prices.¹²⁹ Joint Advocates agree that development of the National Broadband Plan must include a timely opportunity to revisit this restriction on access to UNEs.

XO provides another specific example of how the Commission could make good on the original promise of unbundling. XO reports it has sought to upgrade its local network in recent years by deploying rooftop microwave antennas at ILEC central offices. The microwave

¹²⁶ See NASUCA at 59 *ff*; see in particular the presentation of BT Global Services general counsel Richard Nohe, *A Look at Openreach after Three Years*, available at <u>http://www4.gsb.columbia.edu/citi/networkseparation</u>, at slides 11-13 (documenting growth in both CLEC numbers and incumbent revenue).

¹²⁷ According to its website, XO offers the "resale of local voice services, which enable competitive local exchange carriers ("CLECs"), IXCs and ILECs to expand their service footprint with a branded local service offering," as well as "VoIP products for carriers," <u>http://www.xo.com/carrier/voice/Pages/overview.aspx</u>. XO also offers an array of other telecommunications transport services, including "point-to-point private lines: and XO hub services. <u>http://www.xo.com/carrier/transport/Pages/overview.aspx</u>.

¹²⁸ XO, at 28, *citing USTA v. FCC*, 3590 F.3d 554, 575-77 (DC Cir 2004..

¹²⁹ XO, at 28-30.

facilities are intended to provide a high-speed wireless link between XO's local network and the incumbent's UNEs that XO obtains in the ILEC office. XO's ultimate goal is to use these microwave links to replace leased circuits that it currently uses to interconnect the central office with its local network.¹³⁰ However, AT&T has consistently delayed or blocked XO's efforts to expand its collocation facilities in AT&T central offices to include microwave transmission equipment.¹³¹

To encourage pro-competitive efforts to expand the reach and performance of high-speed services, the FCC's comprehensive plan should confirm that the collocation of microwave transmission facilities is both reasonable and required. An unambiguous ruling requiring access to those facilities would undermine AT&T's efforts to thwart XO's network upgrades, and assist state commissions in resolving such collocation disputes through their oversight of interconnection agreements.¹³² Joint Advocates support XO's recommendations because, if adopted, they would represent one more step toward open networks and true facilities-based competition, ultimately enhancing consumer choice in the broadband market.

Finally, looking toward other countries' experience, we note that Japan has been promoting broadband competition by opening up both its wireline¹³³ and wireless¹³⁴ networks. Japan reports that "optical fiber network unbundling … has accelerated the spread of DSL services and led to the rapid start up of FTTH services."¹³⁵ Joint Advocates recommend further study of the Japan model, noting that its potential impact is evidenced by its ambitious goal of

¹³⁰ Id., at 31.

¹³¹ Id., at 32.

¹³² Id., at 32-33.

¹³³ Government of Japan, at [2], [3-4].

¹³⁴ *Id.* at [4-5] (by "reallocation" of frequencies to those willing to observe open market rules). ¹³⁵ *Id.* at [3].

100% broadband penetration – and 90% ultra-high-speed broadband penetration -- by the end of 2010.¹³⁶

F. SPECIAL ACCESS: ANOTHER KEY ELEMENT OF AN OPEN NETWORK ECOLOGY

Like unbundled network elements, special access lines (which themselves present a species of the unbundling problem) are key to building an open, end-to-end broadband network. There is a growing consensus among most stakeholders – from competitive carriers, information service providers, and consumer groups – that the ILECs exercise (and often abuse) significant market power over the special access (sometimes called "middle mile" or "backhaul") lines at the heart of the interconnected broadband network.¹³⁷ Indeed, the "intermodal competition" touted by AT&T and other incumbents in their comments¹³⁸ is itself dependent on the availability of special access, backhaul, and middle mile lines made available, under the FCC's current rules, at extortionate rates.

Several commenters echo NASUCA's and Rate Counsel's concerns about the chilling effect of exorbitant special access rates on the achievement of national broadband goals. XO argues that regulatory intervention is necessary to repair the market for special access service.¹³⁹ Covad Communications Company ("Covad") agrees that:

¹³⁶ *Id.* at [5]; *see also* Wired.com at [2].

¹³⁷ Again, this consensus is reflected at the website <u>http://www.nochokepointsblog.org/</u>, cited *supra*. Also found on that website are reports by the Government Accountability Office, entitled *The FCC Needs to Improve its Ability to Monitor the Extent of Competition in Dedicated Access Services,* and by the independent group Economics & Technology, Inc., entitled *Special Access Overpricing and the U.S. Economy,* which document the market failures in this area. *See <u>http://nochokepoints.org/sites/default/files/resources/GAO_Report.pdf</u> and <u>http://nochokepoints.org/sites/default/files/resources/ETI Study-Ad Ho 2007 Comment Appendix 1.pdf</u>, respectively.*

¹³⁸ AT&T, at 99, citing the "expanding choice[s]" in broadband brought to consumers by its mobile and cable competitors.

¹³⁹ XO, at 24-25.

[S]pecial access pricing remains far above costs and, to the extent competitors attempt to offer retail services while purchasing special access facilities, the result is that CLECs (and their customers) continue to subsidize the ILECs by paying monopoly rates for special access. This reform is not only critical to promoting competition in broadband, but will be a big component of economic stimulus. By rolling back the excessive rates currently charged for special access to a more reasonable level, the Commission will spur investment and create jobs in infrastructure development.¹⁴⁰

XO asserts that the FCC's National Broadband Plan must address the longstanding inability of competitive broadband providers to obtain efficient access to the special access offerings of the BOCs and other ILECs at reasonable prices.¹⁴¹ As XO and others observe, despite overwhelming evidence of market failure, the FCC has yet to take meaningful action to curb the ILECs' dominance in the provision of special access services. ILECs continue to command unjust and unreasonable rates for special access that far exceed their costs. These excessive prices stifle competitive broadband alternatives to ILEC services. Joint Advocates concur with XO that the FCC should finally remedy this problem with prompt, appropriate regulatory action.¹⁴²

G. THE ROLE OF SPECTRUM MANAGEMENT IN BROADBAND POLICY

M2Z Networks, Inc. ("M2Z") correctly points out that "[b]roadband adoption in the United States is abysmal relative to its global competitors with over 100 million Americans left without broadband connections."¹⁴³ Joint Advocates support M2Z's call to reform the duopoly broadband market by introducing competition, but reject M2Z's request to act on the AWS-3

¹⁴⁰ Covad, at 7-8.

¹⁴¹ XO, at 22.

¹⁴² XO, at 22.

¹⁴³ M2Z, at ii.

matter now pending before the Commission by the end of 2009, before completing the National Broadband Plan.¹⁴⁴ Until the National Broadband Plan is formulated, Joint Advocates urge that substantive spectrum issues, including how wireless spectrum such as AWS-3 will fit into such plan, should be deferred.

IV. CONTRARY TO SOME COMMENTERS' RECOMMENDATIONS, THE FCC SHOULD MAKE IT CLEAR THAT STATES HAVE AUTHORITY OVER BROADBAND TO STATES IN AREAS SUCH AS CONSUMER PROTECTION AND DATA COLLECTION.

Over the past several years, it seems every federal regulatory initiative was seized upon by industry to curtail state laws and regulations founded upon their inherent police and other powers. Sadly, this proceeding is no different – despite President Obama's clear call to proceed with caution when it comes to preempting state authority, and despite Congress' clear desire to have states play an integral role in formulating and implementing broadband policy for the United States.¹⁴⁵ For example, the Telecommunications Industry Association ("TIA") asserts that "[t]he [federal] government also can play a key role in enhancing broadband deployment by exercising exclusive regulatory authority over the inherently interstate broadband market and taking specific preemptive action where appropriate."¹⁴⁶

¹⁴⁴ Id. at ii.

¹⁴⁵ See Presidential Memorandum of May 20, 2009, entitled "Preemption," 74 Fed. Reg. 24693-94 (May 22, 2009); *see also, e.g.,* BDIA, § 102(4) (Congressional finding that the "The Federal Government should also *recognize and encourage complementary State efforts* to improve the quality and usefulness of broadband data") (emphasis added); *and* § 106 (establishing various measures encouraging state initiatives to improve broadband); *see also* American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, § 6001(c) (providing for the Assistant Secretary of Commerce to consult with states in identifying areas that are unserved or underserved for broadband and in allocating funds to encourage broadband deployment in such areas); *and* § 6001(e) (providing for, among others, states to apply for grants to increase broadband deployment).

¹⁴⁶ TIA, at iv.

Joint Advocates reject these assertions – and similar assertions by representatives of the communications industry. State laws founded upon states' inherent police and other powers, which are central to executing their sovereign rights and responsibilities -- including service quality and consumer protection regulation -- remain appropriate even for broadband networks and services. The FCC should eliminate any ambiguity about states' authority to impose and to enforce consumer protection measures regarding broadband service.

Joint Advocates concur with the Benton Foundation that, at a minimum, consumers "deserve truth-in-billing," and that carriers' bills should: (1) be accompanied by a brief, clear, non-misleading, plain language description of the service or services rendered; (2) identify the service provider associated with each charge; (3) clearly and conspicuously identify any change in service provider; (4) identify those charges for which failure to pay will not result in disconnection of service; and (5) provide a toll-free number for consumers to inquire or dispute any charges.¹⁴⁷ Joint Advocates also concur that because of the importance of a broadband connection, providers that seek to "discontinue, reduce, or impair" services or network facilities should first request authority to do so and should notify affected customers and others of their plans.¹⁴⁸ Moreover, Joint Advocates recommend that consumer protection measures such as the ones set forth by the Benton Foundation be established and enforced by states, because states are on the "frontlines" of consumer complaints and concerns, and therefore better positioned to address these concerns.

The industry's case for preemption is weak. For example, in attempting to make its case for preemption, Verizon argues that one of the biggest barriers that carriers face in deploying wireless broadband services to unserved and underserved areas is the laborious and costly delays

¹⁴⁷ Benton Foundation, at 40-41.

¹⁴⁸ Id.

associated with tower siting.¹⁴⁹ Verizon believes that carriers and tower companies are experiencing long and unreasonable time periods for new sites and even for minor changes to towers already on the ground, to gain state or local zoning approval, and that policymakers should impose reasonable time constraints on the state and local zoning process.¹⁵⁰ Joint Advocates take strong exception to Verizon's proposal to impose federal time constraints on the zoning process. Regulatory intervention by state and local governments is important to promote net neutrality and consumer choice, and can encourage competition in order to help prevent duopoly. By falling prey to timelines, state and local zoning boards would be pressured to act quickly and forgo normal procedure. Joint Advocates encourage a technology-neutral approach.

Furthermore, tower siting is an issue of public health and safety that is properly a power for the state and should not be federalized. Section 332(c)(7)(A) of the Communications Act of 1934, entitled "Preservation of Local Authority," largely preserves local government authority "over decisions regarding the placement, construction, and modification of personal wireless facilities..."¹⁵¹ Joint Advocates agree with NATOA that Verizon and CTIA rely on one-sided anecdotes, rarely identifying local governments and using "fear of retribution" as a screen to prevent full investigation of their allegations.¹⁵² Furthermore, it is difficult to impose fixed deadlines as some wireless facility-siting applications can be dealt with quickly, while others require a more extensive review and input from the affected community.¹⁵³ Verizon and other supporters of tower-siting deadlines ignore local zoning procedures, such as the need to notify

¹⁴⁹ Verizon, at 63; *see also* US Chamber, at 6 (recommending that zoning and siting regulations be streamlined, including adopting the proposal of CTIA – The Wireless Association ("CTIA") for a "shot-clock" on tower siting).

¹⁵⁰ Verizon, at 63.

¹⁵¹ See Petition for Declaratory Ruling to Clarify Provisions of Section 332 (c)(7)(B) to Ensure Timely Siting Review and to Preempt under Section 253 State and Local Ordinances that Classify All Wireless Siting Proposals as Requiring a Variance, WT Docket No. 08-165 ("08-165), NATOA Ex Parte (November 21, 2008).

¹⁵² *Id.*, at 5.

 $^{^{153}}$ *Id*.

area residents, scheduling and notice requirements for municipal meetings, and people's ability to appeal.¹⁵⁴ Joint Advocates stress the importance of leaving zoning power to the State and local municipalities and let them decide the proper review procedure for cell tower siting decisions, within the constraints of 47 U.S.C. § 332(c)(7).

V. VOIP AND THE NATIONAL BROADBAND PLAN

Regulation of Voice over Internet Protocol ("VoIP") service – a service that mimics and is often marketed by providers as "telephone" service, is yet another area where industry makes another misguided attempt to eliminate state regulatory oversight over such service. Verizon is typical of these industry commenters, urging the FCC to "clarify" that the classification of VoIP services as information services will not interfere with the existing rights of competitive carriers to interconnect.¹⁵⁵ Contrary to Verizon's assertions, however, although the FCC has asserted exclusive jurisdiction over "nomadic" VoIP, state regulators continue to have jurisdiction over fixed VoIP.¹⁵⁶ VoIP is simply one of the many services available through broadband, and is properly classified as a telecommunications service.

Joint Advocates' assert that a National Broadband Plan should encompass all parts of broadband and should be technology-neutral. Joint Advocates reiterate their agreement with the

¹⁵⁴ See 08-165, Letter from Sen. Obama forwarding letter from the Mayor of City of Champaign, Illinois (October 22, 2008).

¹⁵⁵ Verizon, at 124.

¹⁵⁶ See Vonage Holdings Corp. Petition for Declaratory Ruling Concerning an Order of the Minn. Pub. Utils. Comm'n, 19 FCC Rcd 22404 (2004). As a result of an FCC decision issued in 2008, information about VoIP customers should be improving, which would assist the Federal-State Board on Universal Service in ensuring that all services, regardless of technology used, would contribute a fair share to any USF. Through the Form 477 Order, the Commission requires providers of interconnected VoIP service to furnish subscribership data (both end-user and resale), and to determine the percentage of subscribers that are residential customers. Service providers will report interconnected VoIP subscribers aggregated at the state level, but will also provide a list of ZIP codes where at least one interconnected VoIP customer is located. Form 477 Order, ¶¶ 29-30. Service providers are directed to report the number of customers for whom the service provider (or an affiliate) provides the underlying broadband connection as well as the VoIP service itself. Id., ¶ 31.

FCC's observation that "[w]ith technology developing at such a rapid pace, it is important that we do not lose sight of the potential for monumental shifts in technological platforms that would render definitions obsolete or indeed harmful to developments that might otherwise take place in the market"¹⁵⁷ Furthermore, in sharp contrast to the technologies of the past that had a readily identifiable "bright line," there is within the broadband-served community a significant variety of capabilities, with a wide and evolving array of broadband speeds available throughout the country.¹⁵⁸ Referring simply to the digital "haves" and "have-nots" simplifies a complex situation where consumers have access to an evolving array of broadband options, ranging from digital subscriber lines to Verizon's FiOS. Therefore, Joint Advocates encourage the FCC to craft a National Broadband Plan that is technology neutral and encompasses all areas of broadband.

VI. UNIVERSAL SERVICE

A. A NATIONAL BROADBAND PLAN SHOULD BE INCLUSIVE.

Support for a National Broadband Plan that will include as many U.S. consumers as possible is widespread.¹⁵⁹ As the Bi-partisan Congressional Rural Caucus has stated, "[b]roadband service is no longer a luxury, but is a necessity and a national broadband plan should reflect this transformation as fundamentally important as electricity and water."¹⁶⁰ Among others, the United States Internet Industry Association and Netliteracy (collectively "USIIA") state that "[t]hough there remain[s] a need for better data regarding the nation's broadband infrastructure and targeted programs to build out and enhance that infrastructure, the

¹⁵⁷ NOI, ¶ 22.

¹⁵⁸ Rate Counsel, at 7; NASUCA, at 16 and 20.

¹⁵⁹ See, e.g., USIIA, at 1, 4.

¹⁶⁰ Letter of Bi-partisan Congressional Rural Caucus at 2 (June 26, 2009)("Congressional Rural Caucus Letter").

larger and more critical issue is how to spur the adoption of broadband among the one-third of Americans who currently do not or will not utilize it."¹⁶¹ USIIA proposes a community-based approach to achieving ubiquitous adoption of broadband that would rely on a national Digital Inclusion initiative to drive broadband adoption; community center education programs; a "Student Net Literacy Corps," and the distribution of computers to low-income Americans who do not have them.¹⁶² Joint Advocates support these views.

Likewise, Zero Divide, a public foundation, argues that promoting broadband in unserved and underserved communities is particularly important in light of the market failure to ensure affordable broadband in low-income areas. A lack of broadband access creates a digital divide, whether one lives in a rural or inner city area, Zero Divide notes: Underserved communities appear both in rural and urban settings and include low income, minority, immigrant, elderly and disabled individuals as well as people who speak little or no English.¹⁶³ Zero Divide, which provides estimated costs for broadband access in Appendix 1 to its comments, insists that the cost of broadband subscription services and the necessary hardware and software are a major barrier for low-income and other underserved communities. It notes that 1Mbps broadband service costs a household from \$325 to \$870 per year plus an additional \$500 for a computer and software.¹⁶⁴

Zero Divide stresses the importance of broadband mapping and urges that data be collected on both availability and broadband adoption. Lastly, Zero Divide says the National

¹⁶¹ USIIA, at 1.

¹⁶² Id., at 4.

¹⁶³ Id. at 5.

¹⁶⁴ The Center for Accessible Technology notes that people with disabilities need additional technology, software and higher bandwidth, which add to affordability concerns. Center for Accessible Technology, at 7-9.

Broadband Plan must ensure that individuals with disabilities can fully access broadband and benefit from it.¹⁶⁵ Joint Advocates support Zero Divide on these points as well.

Low-income households continue to have the lowest rates of broadband adoption as documented in the *Pew Internet and American Life Project*.¹⁶⁶ As summarized by CWA, statistics from the 2008 Pew Internet and American Life survey also show low broadband adoption levels among the elderly and rural consumers.¹⁶⁷ The National Broadband Plan should contain measures to address this market failure.

B. WHERE FEASIBLE, PUBLIC SUPPORT SHOULD BE DISTRIBUTED DIRECTLY TO CONSUMERS RATHER THAN GO TO SUPPLIERS.

Continuing growth in the costs of the federal universal service program and the corresponding increases in universal service fund ("USF") charges on consumers' bills have raised concerns among diverse entities.¹⁶⁸ As discussed above, however, broadband has become an essential service worthy of USF support. Joint Advocates concur with Consumer Federation of America and Consumers Union ("CFA/CU") that "[a]n affordable connection to broadband is no longer a discretionary expense, but an essential service to participate economically and engage civically. Universal broadband serves 'the public interest, convenience and necessity."¹⁶⁹ In extending the USF to cover broadband, however, there must be clear accountability, and a requirement that broadband services support broadband deployment. The Congressional Rural Caucus supports reform of the USF, "to be technology neutral and

¹⁶⁵ Zero Divide, at 3.

¹⁶⁶ Id at 8.

¹⁶⁷ CWA, at 11. The Pew Internet and American Life Project recently released a report for 2009, which shows that although adoption is increasing, barriers persist, particularly for elderly and low-income consumers. *See* http://www.pewinternet.org/Reports/2009/10-Home-Broadband-Adoption-2009.aspx.

¹⁶⁸ See, e.g., CWA, at 16-17; Benton Foundation., at 45.

¹⁶⁹ CFA/CU, at 9.

recognize that broadband should be a supported service and special efforts should be made to provide predictable, targeted support to achieve the final goal of universal service."¹⁷⁰

In addition, the FCC should consider adopting a program to support low-income consumers' access to broadband, modeled on the existing Lifeline program for traditional voice service. One compelling advantage of the Lifeline program is that support is directed to consumers (the intended beneficiaries of the support). To the extent feasible, Joint Advocates urge the Commission to explore options for providing broadband benefits directly to consumers. Also, where feasible, Joint Advocates support the use of federal monies to address barriers to broadband adoption, such as for ancillary equipment and training, for deployment to affordable housing units, to job centers, and so forth.

As the National Consumer League explains, without access to affordable broadband consumers are "increasingly cut off from essential government services, workplace and educational opportunities, and social connections."¹⁷¹ The Joint Advocates concur that access to affordable broadband is a necessity. As recognized by NTCA, since only "telecommunications services" are eligible for universal service support under Section 254(c), the Commission would need to reassess and revise past determinations that broadband services are not telecommunications services.¹⁷² Joint Advocates believe that the Commission can and should

¹⁷⁰ Congressional Rural Caucus Letter, at 2.

¹⁷¹ National Consumer League, at 3. See also, Sesame Street Workshop at 1-6 re importance of access to broadband and technology to support education.

¹⁷² NTCA, at 15-16; *see also* NASUCA, at 44-45. NASUCA has asked the FCC to reconsider and reverse past decisions which excluded broadband from the scope of telecommunications services. *See, e.g., In the Matter of High Cost Universal Service Support*, CC Docket No. 05-337 et al. ("05-337, et al."), NASUCA Comments on Joint Board Recommended Decision (April 17, 2008) at 16-21.

designate broadband services as within the scope of Section 254(c) and so eligible for support through USF. A Lifeline for broadband program should be developed.¹⁷³

Joint Advocates disagree with those commenters who seek to downplay the impact of the high costs of broadband service on subscription levels. For example, Verizon argues that affordability is not a major obstacle for consumers, noting that over 90 percent of households have access to broadband and approximately 80 percent of households with computers already subscribe.¹⁷⁴ Based on this, Verizon claims that availability and price are not among the predominant reasons cited by those who have not subscribed.¹⁷⁵ But almost immediately thereafter, Verizon concedes that broadband prices are an obstacle for some consumers, and recommends that policymakers should consider targeted subsidies – such as refundable tax credits for the price of broadband services and devices – for those most in need.¹⁷⁶

AT&T similarly argues that broadband affordability is not a major issue impacting subscription rates. AT&T suggests that believes that affordability should not be judged primarily from the perspective of the rates charged for a specific broadband service or product, because such data do not address the consumer side of the equation.¹⁷⁷

Joint Advocates disagree with AT&T's suggestion that broadband "rates" do not matter – and indeed, disagree with AT&T's recommendation that the Commission should not base any affordability analysis on raw pricing data collected from broadband providers, primarily because

¹⁷³ The Lifeline Broadband Pilot proposed by the Commission in Fall 2008 may be a starting point, but refinements and additional consumer protections are needed. *See* 05-337 et al., Comments of NASUCA, Maine Office of Public Advocate, Maryland Office of Peoples' Counsel, The Utility Reform Network, and the Utility Consumer Action Network (November 26, 2008), at 32-37.

¹⁷⁴ Verizon, at 31.

¹⁷⁵ Id.

¹⁷⁶ *Id.*, at 33.

¹⁷⁷ AT&T, at 30.

this would be a "monumental burden" on the 1,400 broadband providers in America.¹⁷⁸ Frankly, Joint Advocates are unmoved by this purported burden. For one thing, the burden imposed on the vast majority of these providers will be relatively light, since they provide geographically limited or relatively few categories of services. The burden will, admittedly, be heavier on the major national/regional broadband providers (e.g., Verizon, AT&T, Time Warner, Comcast), but then again, such "monumentally" large companies should be able to absorb the costs of providing the Commission -- and the public -- with information that is critical to their business operations, routinely updated and certainly readily accessible within their corporate structure (*i.e.*, how much they charge for their service). The burden will more likely be on the Commission to sift through the data and provide it in a relatively digestible format -- such as average rates for different broadband services on a national or, better yet, regional or otherwise more granular scale -- to the public, to states, and to Congress. If the Commission is willing to bear that burden (and Congress certainly suggests it should be), then providers cannot complain. However, Joint Advocates do agree with AT&T on one point, that a "model" should not be used to determine how much, in theory, it costs to provide broadband service and that data should be developed based on providers' actual rates for the service.

Although Verizon recognizes that affordability is a factor in household access to broadband service, it differs from Joint Advocates' view that access hinges on affordability.¹⁷⁹ Joint Advocates believe that ensuring affordable rates should be a cornerstone of a National Broadband Plan. To address affordability, Joint Advocates strongly support the expansion of Lifeline and Link-Up programs to include broadband services, and doing so through direct

¹⁷⁸ *Id.* at 29-30.

¹⁷⁹ See Rate Counsel, at 13; NASUCA, at 30.

assistance to consumers, rather than to providers.¹⁸⁰ AT&T and Qwest agree that consumers with low income levels should be supported through programs such as Lifeline and Link-Up.¹⁸¹ Even then, Joint Advocates suggest that affordability will remain a problem, especially during this recession when even those who are already connected may have to "disconnect" to save money.

Qwest, like Verizon, believes the broadband market to be robust and growing.¹⁸² Joint Advocates disagree with Verizon and Qwest's contention, and, in fact, as discussed here and in Joint Advocates' initial comments, much of the affordability problem in the U.S. stems from the lack of real competition for broadband. Where an area is served by just one provider, there is no incentive to keep down the price of broadband access. Rising prices are a major factor for the many people who have opted not to subscribe to broadband service. Verizon argues that of the 90 percent of U.S. households with access to broadband, most are served by at least two wire line broadband platforms.¹⁸³ But FCC data shows that cable modem service and DSL are the main technologies used to provide broadband, accounting for over 83 percent of residential "advanced services" connections.¹⁸⁴ As discussed above, because many areas have just one cable provider and one provider of DSL service, the market for broadband is in essence a duopoly, providing consumers with little real choice and giving service providers little reason to compete on price.

Other commenters address the need for a National Broadband Plan to address affordability through the cost of middle-mile broadband facilities. For example, the Computer & Communications Industry Association ("CCIA") urges the Commission to take the initiative on

¹⁸⁰ Rate Counsel, at 14 ; NASUCA, at 65. See also CWA, at 16, 18 (supporting Lifeline support for broadband service and for computers); CTIA, at 40; Benton Foundation, at 56-57.

¹⁸¹ AT&T, at 48; Qwest, at 16.

¹⁸² Qwest, at 26.

¹⁸³ Verizon, at 12.

¹⁸⁴ Rate Counsel, 29; NASUCA, at 23.

several fronts to press for universal access to broadband service. CCIA asks the Commission to focus on both the last- and middle-mile infrastructure to eliminate bottlenecks in both unserved and underserved areas.¹⁸⁵ According to CCIA, broadband must be supported in both rural and inner city areas to ensure that no citizen is left behind.¹⁸⁶ Joint Advocates agree.

AT&T and Verizon both express the view that the National Broadband Plan should endorse tax policies that will promote broadband deployment and adoption.¹⁸⁷ Joint Advocates believe these corporations may be more interested in tax breaks for their own benefit than in promoting broadband investment. Joint Advocates believe that the best methods of increasing affordability are to create open networks to enable more competition and to encourage state and local government involvement, with the benefit of consumer affordability as a major goal.

VII. SOME COMMENTERS ARGUE FOR A DEFINITION OF BROADBAND THAT IS INCOMPATIBLE WITH CONGRESS'S INSTRUCTIONS, THE COMMISSION'S NOI, AND CONSUMERS' USAGE.

A. RESPONSE TO COMMENTS

Some commenters suggest that the Commission define "broadband" by essentially refusing to define broadband. AT&T's comments are fairly representative of this perspective. In its comments, AT&T first criticizes the Commission's focus on throughput speeds in its broadband data collection efforts, suggesting that "the plethora of broadband services available today – not to mention the services that will be developed in the future" means that there is "no one-size-fits-all 'metric' by which policymakers could hope to assess or measure the relevant attributes of every one of these wildly diverse broadband products."¹⁸⁸ AT&T then suggests that,

¹⁸⁵ CCIA. at 7-8.

¹⁸⁶ Id. at 9-11.

¹⁸⁷ AT&T. at 94.

¹⁸⁸ AT&T, at 15-16.

"[i]n this dynamic [broadband] environment, it no longer makes sense to use 'speed' as the only, *or even primary*, means of defining whether a service qualifies as broadband," and instead claims that "factors *such as* cost, reliability, coverage, mobility, energy consumption, or security can be much more important than the throughput of a particular broadband network or service."¹⁸⁹ The real aim of AT&T, it appears, is to throw so many elements into defining "broadband" that policymakers will spend years trying to come up with a definition that incorporates all the elements suggested by AT&T, which AT&T conveniently declines to define with any particularity. Such attempts to postpone indefinitely the development of a straightforward definition of "broadband" must be rejected.¹⁹⁰

The Commission should instead follow the course it has historically taken – focusing on transmission speeds in order to define whether a consumer is receiving (or a provider is offering) service that is capable of providing the features and functionalities Congress has previously identified with "broadband" or "advanced services," namely services that enable users to "to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology."¹⁹¹ Moreover, Joint Advocates find it ironic that AT&T – and others who seek now to downplay the relevance of transmission speeds in defining "broadband" – historically have not objected to the Commission's use of transmission speed in defining "advanced services," at least so long as the speeds the Commission used (*i.e.*, as low as 200 kbps) were inadequate to provide many of the capabilities Congress originally had in mind.

¹⁸⁹ Id. at 16-17 (emphasis added).

¹⁹⁰ Moreover, Joint Advocates note that the Commission recently announced that it has tapped The Berkman Center for Internet and Society at Harvard University to conduct an independent expert review of existing literature and studies about broadband deployment and usage throughout the world. *See* FCC News Release (July 14, 2009), available at <u>http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-291986A1.pdf</u>. The Berkman Center would be a commendable candidate for reviewing AT&T's proposals for additional criteria that could be incorporated in later refinements of the definition of "broadband."

¹⁹¹ See Pub. L. No. 104-104 § 706(d), *codified at* 47 U.S.C. § 157 note; *see also* Pub. L. No. 110-385, §§ 103(a) – (c).

Joint Advocates are not, however, suggesting that the Commission adopt now an immutable definition of broadband based exclusively on transmission speed. In this respect, Joint Advocates generally agree with CEI's suggestion that:

[t]he Commission should define broadband access in a way that focuses on the underlying function — rather than the particular delivery method — of broadband service. DSL, Cable, Fiber, Wireless, and Satellite-based broadband providers all offer more or less the same service, albeit with some differences at the margin (i.e. satellite broadband generally has higher latency than terrestrial broadband).¹⁹²

However, CEI's view that a "rigid" definition of broadband is undesirable, as it may exclude certain technologies, is unfounded.¹⁹³ To the contrary, while the Commission should consider the strengths and weaknesses of each technology, it should also provide a clear definition of what minimum speed is considered "broadband," and then periodically review this definition as it becomes familiar with the data being provided pursuant to the National Broadband Plan.

In the end, it makes little sense for the Commission to avoid defining the subject of the

NOI. A definition that is too flexible would undoubtedly lead to strategic interpretation and

unintended consequences. A specific definition of broadband that dovetails with the goals of the

Commission should be one of the outcomes of this NOI.¹⁹⁴

Joint Advocates note that in its initial comments, NASUCA advocated a minimum symmetric speed of 768 kbps,¹⁹⁵ equal to the lower limit of the FCC's new broadband speed tiers. Rate Counsel recommended a more ambitious definition of broadband – a minimum speed of 3

¹⁹² CEI, at 2.

¹⁹³ CEI, at 3-4.

¹⁹⁴ As stated in the initial comments, Joint Advocates note that the Commission has already made progress toward a definition of broadband in the recent Broadband data-gathering proceeding, where it devised a set of categories to describe Internet access, ranging from "first generation data service" (up to 768 kbps) through seven tiers of "broadband" service (768 kbps and up). *See Form 477 Order*, 23 FCC Rcd 9691, 9700-01, ¶20 & n. 66 (June 12, 2008).

¹⁹⁵ NASUCA, at 15-18.

mbps downstream and 1 mbps upstream.¹⁹⁶ Despite these differences, Joint Advocates agree that the definition of broadband should move well beyond the current standards for "high speed lines" (over 200 kbps in at least one direction) and "advanced services lines" (over 200 kbps in both directions) currently in use for Form 477 reporting. Joint Advocates also agree that the definition of broadband should be revisited periodically to ensure that reporting and oversight keep pace with technological progress.

CWA observes that the capacity of our broadband networks trails our global competitors. CWA observes further that, according to 2007 FCC data (which admittedly is outdated), onethird (34 percent) of reported broadband connections delivered speeds that exceeded 200 kbps in only one direction; 28 percent delivered speeds at less than 2.5 mbps in one direction; one-third (33 percent) delivered speeds greater than 2.5 mbps but less than 10 mbps, and only four percent delivered speeds greater than 10 mbps.¹⁹⁷

CEI counsels the Commission, on the one hand, to adopt a definition based on "uses that are popular among consumers today, rather than one that encompasses speculative, advanced offerings that may eventually take off among consumers."¹⁹⁸ Later, however, CEI asserts that "[u]ltimately, the Internet is too slow and needs to evolve into, or be superseded, by something better... The idea of future multimedia-saturated generations getting by on the existing 'pipes' inventory is infeasible."¹⁹⁹

Joint Advocates believe that instead of looking at where we are, and creating definitions that necessarily are backward-looking, the Commission should instead look *forward*, and seek to

¹⁹⁶ Rate Counsel, at 8.

¹⁹⁷ CWA at 10; *see also id.*, at 14-15.

¹⁹⁸ CEI, at 2.

¹⁹⁹ CEI, at 5.

anticipate and encourage innovation. If the Commission can learn anything from the mainstreaming of broadband service during the past decade, it is that consumers *do* demand more speed as time passes, and that application developers *do* create programs and services that depend on higher speeds. To tie the definition of broadband to the quality of service in use by the "average consumer" today would be to handicap the entire nation by saying, "This is good enough. End of story." That proposition is unacceptable. Instead, the Commission should set its sights higher, encourage service providers to roll out faster service to more of America, and revisit the definitions and requirements periodically until we can be sure that the United States is well-served with broadband at competitive pricing.

Furthermore, Joint Advocates reiterate recommendations made in other proceedings that the FCC condition any approvals that it grants for spin-offs, mergers, acquisitions or similar transactions among regulated entities on enhancement of broadband deployment and subscription. The Commission must utilize such reviews to obtain enforceable, measurable commitments by applicants for broadband deployment at reasonable speeds and affordable prices.

B. THE FCC IS NOT BOUND BY THE DEFINITION OF "BROADBAND" ADOPTED IN THE NTIA/RUS NOFA.

Although not addressed in the NOI or Joint Advocates' initial comments, some comment should be given to aspects of the NOFA recently release by the NTIA and RUS, particularly as the NOFA relates to various parties' comments in this proceeding.

In the NOFA, the NTIA and RUS define several terms that are likewise under consideration by the FCC in its NOI to develop a National Broadband Plan, namely "broadband," "unserved" and "underserved" areas. Joint Advocates generally believe the definitions of "unserved" and "underserved" areas adopted in the NOFA are appropriate for use

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by the FCC as it prepares its Plan for submission to Congress. However, there are aspects of the definition of "broadband" in the NOFA that Joint Advocates urge the Commission to reject.

The NTIA and RUS define "broadband" in the NOFA as:

The provision of two-way data transmission with advertised speeds of at least 768 kilobits per second (kbps) downstream and 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.²⁰⁰

The rationale offered for the definition of "broadband" adopted in the NOFA for use in funding deployment projects under the ARRA Act is that:

This broadband speed threshold ... leverages the FCC's expertise, utilizes an established standard, facilitates the use of many currently common broadband applications (*e.g.*, web browsing, VOIP, and one-way video), allows for consideration of cost-effective solutions for difficult-to-serve areas, and is the most technology-neutral option (because it encompasses all major wired and wireless technologies).²⁰¹

Joint Advocates do not question the utility of leveraging the Commission's expertise,

utilizing established standards, facilitating the use of current broadband applications, considering

cost-effective solutions or technology neutral decisions. These are all relevant and worthy

considerations. However, Joint Advocates believe that the NTIA and RUS definition of

"broadband" does not truly implement these considerations and should not be utilized by the

FCC in preparing a National Broadband Plan that will guide the nation's broadband policies for

years to come.

First, the definition of "broadband" in the NOFA does not actually leverage the Commission's expertise or utilize an established standard. Rather, the NTIA and RUS pick and choose among disparate standards the Commission has established to arrive at a "hybrid" service definition that is simply not appropriate for defining "broadband" service on a going-forward

²⁰⁰ 74 Fed. Reg. 33108; *see also id.* at 33129.

²⁰¹ 74 Fed. Reg. 33129-30.

basis. As NASUCA noted in its initial comments in this proceeding, the Commission has finally abandoned the notion that services with data transmission speeds between 200 kbps and 768 kbps can be considered "broadband" in any way.²⁰² As the Commission noted in its Form 477 Order distinguishing "first generation data services" (*i.e.*, those services with transmission speeds below 768 kbps) from the variety of services that can be characterized as "broadband," "the range of information transfer capacities included in the current lowest tier of 200 kbps to 2.5 mbps captures a wide variety of services, ranging from services capable of transmitting real time video to simple always-on connections not suitable for more than basic email or web browsing activities," and further that "as technologies and services evolve, upload speeds are an increasingly significant aspect of broadband services."203 Similarly, the Commission noted that "first generation data services" should continue to be tracked because "this benchmark includes services that remain valuable to consumers because of their 'always-on' nature and their capacity for more basic Internet services" such as "basic e-mail ..., access to general information (e.g. government websites and news) and the transmission of standard digital media such as pictures and documents."204

In their separate statements in response to the *Form 477 Order*, the Commissioners were more direct in rejecting services with transmission speeds as low as 200 kbps as being "broadband" in any sense of the word. Commissioner Copps wrote bluntly that "today's item recognizes that it is *flat-out wrong (and in fact it has been wrong for many years) to call 200kpbs*

²⁰² NASUCA, at 15-16; *see Form 477 Order*, 23 FCC Rcd. 9691, 9700-01, ¶20 & n. 66.

²⁰³ *Form* 477 *Order*, 23 FCC Rcd. 9700, ¶19 (emphasis added). The Commission further noted comments observing that "1.0-2.0 mbps is a minimum requirement for transmitting real time VHS-quality video using MPEG-2 encoding, and that at least 384 kbps is needed for low quality video conferencing using MPEG-4 encoding." Id., n. 63.

²⁰⁴ *Id.*, n. 65 (emphasis added).

service "broadband."²⁰⁵ Similarly, former Commissioner Adelstein noted the importance of upload speeds in collecting data regarding "broadband" services, writing:

We also make improvements on the important issue of upload speeds. As consumers and businesses become increasingly empowered as creators of content, services, and applications, it is important that the Commission gather information about what services are available and adopted. The Commission's new broadband reporting categories would have been improved were they to contain a component of upload speed, but I am pleased that the Commission will at least collect new data on this issue at a more granular level.²⁰⁶

Second, contrary to the agencies' suggestion otherwise, the definition of "broadband" adopted in the NOFA is not consistent with Congress' (and the Commission's) notions of current broadband applications. As NASUCA pointed out in its comments, the terms "broadband" and "advanced telecommunications services" that are used interchangeably in various statutes have defined the capabilities that were intended to be included within the scope of such services. Those capabilities include the users' ability to "*originate* and receive high-quality voice, data, graphics, and video telecommunications using any technology."²⁰⁷ By all accounts, services with upload transmission speeds less than 768 kbps are not capable of allowing their users to originate such high-quality services, particularly video and graphics. Thus, defining "broadband" service as including services with upload transmission capabilities as low as 200 kbps (or even as high as 768 kbps) will not, as the NTIA and RUS believe, facilitate the deployment of all "current" broadband applications.

Third, the NTIA/RUS reliance on "advertised speed" in defining "broadband" is inappropriate and ill-conceived. It is well understood that the broadband speed consumers actually obtain from the provider is often quite different from "advertised" broadband speed. For

²⁰⁵ *Id.*, at 9765 (emphasis added).

²⁰⁶ *Id*. at 9768.

²⁰⁷ See NASUCA, at 12-14 (emphasis in original).

example, in a study conducted in the United Kingdom, fixed broadband providers that typically advertised speeds "up to 8 mbps" were unlikely to actually deliver even half those speeds.²⁰⁸ The disparity between mobile broadband providers' advertised speeds and actual speeds delivered were even greater according to another survey in England.²⁰⁹ Joint Advocates urge that the standard utilized by the Commission for defining "broadband" be based on average actual speeds delivered to consumers by a provider – not the advertised speeds that providers have every reason to inflate. In fact, if the Commission bases its definition of "broadband" on advertised speeds, as the NTIA and RUS have done, providers will simply have yet another incentive to inflate their advertised broadband speeds.

Finally, while the definition of "broadband" adopted by the NTIA and RUS may have been driven by considerations of cost-effectiveness for purposes of implementing the short-term economic stimulus package contained in the ARRA, frankly those considerations are not germane to consideration of what should constitute "broadband" service in the National Broadband Plan that will guide future policy nationally. For purposes of the Plan, "broadband" should be defined in such a way that it is dynamic (*i.e.*, capable of being upgraded to accommodate changing technologies, applications and uses) and forward looking. Defining "broadband" below the minimum level the Commission has established is simply not the sort of forward-looking, dynamic standard that should be employed for making national broadband policy in the future.

²⁰⁸ See, Chris Williams, "Ofcom Urged to Clamp Down on Broadband Speed Deceit," *The UK Register* (Dec. 19, 2007), available at <u>http://www.theregister.co.uk/2007/12/19/ofcom panel speed code/</u>; see also "Broadband Speeds: Are You Getting What You Pay For?," Genie Ventures (Feb. 11, 2009), available at http://www.cambridgenetwork.co.uk/news/article/default.aspx?objid=56350.

²⁰⁹ See "Study Reveals UK Users Gets [sic] 24% of Advertised Speeds" (June 12, 2009), available at http://www.symbian-freak.com/news/009/06/uk_mobile_broadband_speed_is_below_1mbps.htm

For all the foregoing reasons, the definition of "broadband" adopted by the NTIA and RUS in the NOFA is not, and should not, be considered as either binding, or even persuasive, authority for defining "broadband" for purposes of the National Broadband Plan the Commission is developing. The FCC should use its own definition consistent with the comments in this proceeding.

VIII. DATA, MAPPING AND PUBLIC/PRIVATE PARTNERSHIPS

The Massachusetts Broadband Institute and Massachusetts Department of Telecommunications and Cable ("MBI/MDTC") is in line with the recommendations of Joint Advocates that intergovernmental coordination and collaboration between and among federal and states are necessary.²¹⁰ In addition, data collection and broadband mapping must be done and its resultant data made public.²¹¹ Joint Advocates also concur with CWA that a National Broadband Plan should include measures to protect consumers by requiring public reporting of deployment, actual speed, price and quality of service.²¹²

The marketplace is not working, and so information is key to smart public policy, and to consumers' ability to make sound purchasing decisions (including understanding not only pricing plans, but also terms and conditions of broadband offerings). However, it is important that data, mapping, and other infrastructure information reside not only with any public-private partnerships that are formed, but also with government agencies to inform sound policy decisions. As NASUCA has stated before, in comments filed two years ago, addressing partnerships such as Connected Nation: "Partnerships are to be commended, but should

²¹⁰ MBI/MDTC, at 2.

²¹¹ *Id*.

²¹² CWA, at 20.

supplement and not supplant state and federal data gathering efforts."²¹³ There must also be attention paid to conflicts of interest between the public and private members of such partnerships.

CWA recommends that each state have a plan to expand broadband deployment and adoption, that would be developed under the leadership of an executive agency or non-profit entity with input from a state broadband task force composed of all major stakeholders, including workers in the industry and their unions. State broadband task forces provide multiple functions, serving to disseminate successful local models, identify policy solutions, mobilize support and build public-private partnerships. According to CWA, to date, about 12 states have established broadband task forces; these states are leading the way in state-based initiatives and are well-positioned to identify projects for ARRA funding.²¹⁴ The Commission should incorporate these state efforts into the National Broadband Plan.

IX. CONCLUSION

Joint Advocates urge the Commission to release a Draft National Broadband Plan sufficiently far in advance of the February 2010 deadline to permit parties an opportunity to comment again. The complexity and breadth of issues that the National Broadband Plan encompasses, and the vitally important role of broadband in today's economy and society justify further deliberation, based on a specific draft plan.

Joint Advocates urge the Commission to consider the impact of its broadband plan on consumers' ability to obtain affordable broadband at reasonable speeds. Joint Advocates further

²¹³ In the Matter of Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscribership Data, and Development of Data on Interconnected Voice over Internet Protocol (VoIP) Subscribership, WC Docket No. 07-38, NASUCA Reply Comments (July 16, 2007), at 12.

²¹⁴ CWA, at 15.

urge the Commission to adopt the recommendations herein, as well as the detailed proposals set forth in NASUCA's and Rate Counsel's initial comments. Joint Advocates welcome the opportunity to participate in this landmark proceeding, and to participate in any future dialogues that the FCC may initiate with interested stakeholders on the design of an effective National Broadband Plan.

Respectfully submitted,

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