

EXECUTIVE SUMMARY

The opening round of comments in this proceeding highlights the tremendous challenge facing the Commission in carrying out the direction of Congress to develop a National Broadband Plan. The voluminous record that already has been compiled presents an incredible diversity of views on the state of the broadband marketplace and what, if anything, should be done to change it.

So how can the Commission pull together such a wide-ranging set of comments and develop an effective broadband strategy for the Nation?

The Commission can maximize its chances of success by remaining focused on the key challenge presented by Congress – making broadband capability available to all Americans. While Congress recognized that broadband technology can be beneficial in many other contexts, such as education and energy, achieving maximum availability of broadband is essential to maximizing the benefits in these other areas. The key to achieving this goal is to develop a plan that encourages continued investment in broadband networks. The one thing that is certain is that the Commission will not be able to achieve the goal of providing every American with access to broadband capability, or any of the other goals established by Congress, if it takes steps that discourage broadband investment.

A successful broadband strategy also requires a clear-eyed assessment of the current marketplace and likely near-term developments. The Commission must acknowledge the many successes of the current regulatory framework for Internet services – the hundreds of billions of dollars in investment, the increasing speeds provided to consumers, and the thriving market for applications. And where the marketplace has fallen short, the Commission must identify steps that actually fix the problems. For example, as NCTA explains in these reply comments, a number of parties are advocating significant new regulation of Internet services that will do

nothing to fill gaps in deployment or promote adoption of service by those who aren't taking it today. If the Commission is serious about ensuring that all Americans have access to broadband, imposing traditional utility regulation is the wrong approach.

Finally, the Commission must continue to pursue an open, collaborative process that reflects and incorporates the needs of all affected parties. Recognizing the magnitude of the challenge it faces in this proceeding, the Commission has taken a number of unconventional procedural steps, including arranging a series of public workshops and commissioning a report from the Berkman Center at Harvard. NCTA applauds the Commission for taking a creative approach to such an important set of issues. We look forward to the opportunity to continue working with the Commission on all of these efforts.

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small, are now deploying ultrafast next-generation Internet services based on DOCSIS 3.0 technology. All of this has been accomplished with private risk capital.

As described in the comments of other parties, the cable industry's broadband deployment spurred others to follow. Telephone companies have responded to cable's investments with network upgrades of their own, with Verizon and others deploying fiber networks.² Wireless providers also have become major players in the broadband marketplace, providing 3G services that have become indispensable to millions of consumers, with upgrades to 4G technologies (with faster speeds) planned for the next few years.³ As one commenter accurately concluded, "[w]e have achieved nearly ubiquitous broadband deployment in large part through reliance on market forces and facilities-based competition"⁴

Notwithstanding the achievements of the last decade, a number of parties argue that the broadband marketplace is not meeting the needs of the American people and that significant new regulation based on common carrier principles is needed. As we explain below, these critics miss the mark, both in their assessment of the existing marketplace and in their proposals for new regulation. Rather than subjecting the complex and dynamic broadband marketplace to the traditional utility regulation of the past, the better approach is one that builds on the successes of the existing regulatory framework and prioritizes those policies that are directly related to the goals established by Congress. With this in mind, NCTA urges the Commission to take the following four steps:

First, the Commission should administer this proceeding in an open, transparent manner designed to achieve the congressional goal of universal access to broadband capability. This is a

² See, e.g., Verizon Comments at 6.

³ See, e.g., AT&T Comments at 79; CTIA Comments at 5-7, 31.

⁴ Ferree/Esbin Comments at 16.

unique planning exercise because achievement of any goals or benchmarks established by the Commission is ultimately beyond the Commission's control – it cannot compel private companies to invest in new facilities and equipment, nor can it compel private citizens to purchase service. The Commission's primary role, therefore, is to facilitate the actions that will lead to achievement of its goals. To do this, the Commission must establish reasonable and achievable goals and benchmarks, including realistic definitions of critical statutory terms. And it must coordinate its data collection efforts so that it can measure progress that is being made in achieving these goals and benchmarks.

All of this will require significant public input from consumers and industry. NCTA appreciates the efforts the Commission has made in this direction. We look forward to the opportunity to participate in the upcoming staff workshops and we encourage the Commission to conduct public hearings outside of Washington, D.C. as some parties proposed.⁵ In addition, we encourage the Commission to solicit comment on a draft report before issuing a final report in February 2010.⁶ The Commission also should ensure that the analysis it has commissioned from the Berkman Center is conducted in an open manner and subject to public review and comment before it is relied on in preparing the National Broadband Plan.⁷

Second, as explained in NCTA's comments, the Commission's top priority should be expanding broadband availability to 100 percent. There is universal agreement that broadband has the power to transform the way we live and that Congress has identified the right goal – ensuring that all Americans have access to broadband capability. Not only does focusing on this

⁵ See A Proposal for National Broadband Field Hearings, Minority Media and Telecommunications Council (June 7, 2009), available at <http://www.mmtconline.org/>.

⁶ Comcast Comments at 20.

⁷ FCC Press Release, *Harvard's Berkman Center to Conduct Independent Review of Broadband Studies to Assist FCC* (rel. July 14, 2009).

goal provide enormous public interest benefits, but it also plays to the Commission's strengths. The Commission already has resources and expertise devoted to rural deployment issues, it already has programs in place to promote such deployment (such as the Rural Health Care Program), and it already collects data that will enable it to measure such deployment.

Third, the Commission should establish programs to promote broadband adoption, particularly among underserved populations. While overall penetration continues to improve (from 55 percent to 63 percent in the last year according to one recent report),⁸ the record makes clear that there are tremendous opportunities for government involvement in promoting adoption among certain segments of the population that have lower take rates. Where it has financial resources at its disposal, the Commission should direct them to programs that improve the affordability of the broadband experience. In addition, the Commission's educational and outreach capabilities are formidable, as demonstrated during the DTV Transition, and should be put to use in the broadband arena. And the Commission must work closely with federal, state, and local agencies to ensure that broadband networks are put to their fullest use in supporting national imperatives like education, health care, and energy efficiency.

Finally, the Commission should recognize that some broadband issues are best considered outside of this proceeding. In particular, as we explain below, many of the regulatory proposals related to "openness" on the Internet do not directly bear on the deployment and adoption of broadband (except to the extent that they will *deter* investment) and need not be addressed in order to develop a National Broadband Plan by February 2010.⁹ The Commission

⁸ PEW INTERNET & AMERICAN LIFE PROJECT, *Home Broadband Adoption 2009* at 7 (June 2009) ("Pew Internet Study"), available at <http://www.pewinternet.org/~media/Files/Reports/2009/Home-Broadband-Adoption-2009.pdf>.

⁹ As one commentator recently explained in addressing the relationship between international rankings and network neutrality, "[i]t seems to me that it is totally divorced from rank. You can argue network neutrality one way or the other but it is just completely irrelevant to this debate." See *Broadband Nation: Where Does the U.S.*

already has a variety of proceedings, including the *Broadband Industry Practices* proceeding, where it is considering these issues.¹⁰ In light of the limited amount of time the Commission has to produce this Plan, it should remain focused on the primary goals of the *NOI*, rather than allowing itself to be distracted by issues that are more properly considered in other proceedings.

I. THE COMMISSION SHOULD ESTABLISH DEFINITIONS AND BENCHMARKS DESIGNED TO ACHIEVE THE GOAL OF UNIVERSAL ACCESS TO BROADBAND CAPABILITY

The overarching goal established by Congress – ensuring that all Americans have access to broadband capability – necessarily requires the Commission to: (1) define what it means to have access to broadband capability; (2) establish benchmarks for achieving that goal; and (3) collect data to determine whether the goal has been achieved. We address each of these issues below.

A. Current Generation Equipment Provides “Access To Broadband Capability”

The initial comments provide a broad range of options for defining the terms broadband and access. Some parties have encouraged the Commission to use its existing definition of broadband, including the existing speed thresholds in that definition.¹¹ Other parties advocate using more robust speeds in the definition.¹² And others have advised the Commission to focus on experiential factors, *i.e.*, what can the service do, rather than how quickly the service operates.¹³

Really Stand in the World Ranking, Transcript of Proceedings, Comments of Rob Atkinson, President, Information Technology and Innovation Foundation (June 2009), video available at <http://www.nextgenweb.org/news-and-blog-clips/ranking-the-rankings>.

¹⁰ *Broadband Industry Practices*, WC Docket No. 07-52, Notice of Inquiry, 22 FCC Rcd 7894 (2007).

¹¹ *See, e.g.*, OPASTCO Comments at 4; NASUCA Comments at 13-14.

¹² *See, e.g.*, Free Press Comments at 227 (at least 5 Mbps upstream and downstream); Google Comments at 21 (at least 5 Mbps upstream and downstream); NATOA Comments at 4-5.

¹³ *See, e.g.*, CFA Comments at 35; Verizon Comments at 10; AT&T Comments at vi.

In its opening comments, NCTA did not advocate a particular speed threshold. Rather, we encouraged the Commission to adopt straightforward definitions that would recognize that consumers have access to broadband capability whenever they have the opportunity to purchase services and equipment that enable them to take advantage of the most commonly used Internet applications.¹⁴ Definitions that exclude particular speeds or technologies may have the effect of encouraging investment in areas that already have broadband networks and discouraging investment in areas with none.¹⁵ If the Commission does adopt specific speed thresholds as part of the definition of broadband, it should use the same thresholds that RUS and NTIA included in their recent Notice of Funds Availability.¹⁶ As NCTA has explained previously, using a consistent set of definitions across agencies would be extremely helpful to interested parties.¹⁷

The Commission should reject proposals advanced by Google and others to define broadband as a service that provides symmetrical speeds in both directions.¹⁸ Based on consumer preferences and behavior, most broadband networks, including cable networks, are typically engineered to provide higher speeds for downloads than for uploads. Consequently, limiting the definition of broadband to symmetrical services would be tantamount to finding that no cable operator provides broadband service, a ludicrous result.

¹⁴ NCTA Comments at 6-8.

¹⁵ *Id.*

¹⁶ Department of Agriculture, Rural Utilities Service, Broadband Initiatives Program, RIN: 0572-ZA01; Department of Commerce, National Telecommunications and Information Administration, Broadband Technology Opportunities Program, RIN: 0660-ZA28, Notice of Funds Availability, 74 Fed. Reg. 33104 (July 9, 2009) (*RUS/NTIA NOFA*).

¹⁷ Comments of the National Cable & Telecommunications Association, GN Docket No. 09-29 (filed Mar. 25, 2009) at 7-8.

¹⁸ Google Comments at 21; *see also* NASUCA Comments at 15-16.

The premise underlying those proposals is that all customers should have the ability to originate high-quality video and those that don't do not really have broadband capability.¹⁹ Cable operators appreciate the importance of uploading video, but requiring, or even encouraging, symmetry is not necessary or helpful. Many cable operators already offer services with upload speeds that are more than sufficient for uploading high-quality video. The fact that these are asymmetric services with download speeds that are higher than the upload speeds does not in any way diminish the upload capability.

Moreover, even asymmetric services with lower speeds, whether offered by cable or other technologies, provide the functionality that the average consumer needs to participate in a digital economy. This is the point on which the Commission should be focused. While it is not surprising that Google would advocate an approach in which all network providers would have to build their networks in a way that just so happens to benefit services that depend on video uploads, such as its YouTube service, such an approach discourages providers from offering asymmetric services that might better suit the needs of consumers that don't upload videos. As we explain in more detail in Section II below, the Commission should refrain from substituting its judgment for the judgment of the marketplace on these types of issues.

B. Benchmarks Should Be Developed Through A Collaborative Process That Incorporates The Views Of Consumers And Providers

In addition to establishing a goal of universal access to broadband capability, Congress also required the Commission to establish benchmarks that will measure progress toward this goal.²⁰ Many parties, including two of NCTA's member companies, have submitted proposals identifying specific benchmarks. Specifically, Comcast has proposed a set of benchmarks for

¹⁹ Google Comments at 20-21; NASUCA Comments at 13-14.

²⁰ American Recovery and Reinvestment Act, Pub. L. No. 111-5 (2009) (Recovery Act), § 6001(k)(2).

delivering various levels of service to different segments of the population over the next seven years.²¹ And Cox has proposed that the Commission establish a goal of cutting the number of unserved households in half by 2012.²²

From NCTA's perspective, the specific benchmarks selected by the Commission may be less important than the process the Commission uses for selecting them. The achievement of any benchmarks established by the Commission is something that is ultimately beyond the Commission's direct control. Deployment goals only can be met by private companies investing in new facilities and equipment. Adoption goals only can be met by private citizens making the decision to purchase service. Because achievement of any goals and benchmarks is not within the Commission's direct control, the setting of goals and benchmarks necessarily should be a collaborative process.

NCTA is encouraged that the Commission is moving in the right direction on this front. The process announced at the Commission's July 2 agenda meeting appears to be designed to operate in an open and transparent manner and give both consumers and providers the opportunity to participate. The gathering of information from all interested parties through staff workshops and public hearings will be critical. If the Commission simply adopts a set of arbitrary deadlines, without considering the marketplace realities facing broadband providers and consumers, its plan is almost certain to fail.

NCTA is not discouraging the Commission from setting aggressive benchmarks. But to the extent the Commission establishes goals that go beyond what would be expected if marketplace trends continued, it also must identify the steps it will take to facilitate achievement of the additional performance it is expecting. For example, computer ownership is an obvious

²¹ Comcast Comments at 64-65.

²² Cox Comments at 3.

prerequisite to purchasing high-speed Internet access service. Beyond a certain point, we will not be able to achieve adoption goals without taking steps to put computers into low-income households.

Similarly, to the extent the goals and benchmarks selected by the Commission are informed by the experiences of other countries, the Commission also should look at the steps taken by those countries to encourage the desired behavior. For example, many countries that have succeeded in achieving high rural deployment rates have used both direct subsidies and tax incentives to encourage construction of new facilities, as well as demand-side programs to stimulate adoption.²³ As described in Section II below, these sorts of programs -- and *not* regulatory regimes such as unbundling -- appear to be a key factor in explaining the success of countries at the top of the international rankings.²⁴ Achieving comparable deployment rates in the U.S. may not be an achievable goal until comparable programs are established to encourage the necessary construction and stimulate demand. Further investigation into the role of such programs should be a focus of the Berkman Center analysis and a key element of the Commission's fact-finding in this proceeding.

C. The Commission Should Take A Coordinated Approach To Establishing Benchmarks And Collecting Data

It is not enough that the Commission establish benchmarks; it also must collect the data necessary to measure progress that is being made toward achieving those benchmarks. NCTA

²³ R. Atkinson, D. Correa & J. Hedlund, Information Technology and Innovation Foundation, *Explaining International Broadband Leadership* (2008) ("ITIF Report").

²⁴ Although it should be noted that, as Comcast and others point out, many of these international rankings have significant shortcomings, both as to the accuracy of the data and the usefulness of the rankings for measuring progress towards the goals that Congress has enunciated in the Recovery Act. *See* Comcast Comments, Appendix at 1; Hahn/Wallsten Comments at 2; *see also* Scott Wallsten, Understanding International Broadband Comparisons – 2009 Update at 2-3 ("Wallsten Update Report"), available at <http://www.techpolicyinstitute.org/files/understanding%20international%20broadband%20comparisons%202009%20update%207-9.pdf>.

encourages the Commission to take a coordinated approach to these two issues, i.e., to establish benchmarks that are easy to measure and to focus its collection efforts on data that is useful in measuring progress on the benchmarks. For example, the Commission already collects data on broadband subscriptions at the census tract level through the semi-annual Form 477 filing. Accordingly, if the Commission establishes adoption benchmarks, it should consider measuring progress toward those benchmarks at the census tract level so that providers do not need to file any additional information.²⁵

A number of parties address the issue of how broadband speeds should be measured and how speed should be incorporated into the Commission's goals and benchmarks. To the extent the Commission addresses these issues, it should recognize that simply requiring broadband providers to disclose more information will not necessarily be helpful to consumers. For example, in an attempt to provide consumers with some measure of "actual" speed, Free Press proposes that the Commission require providers to report information regarding contention ratios, which measure the ratio of the maximum possible demand for a particular network segment to the total capacity of that network segment.²⁶ The Commission should reject this proposal because it does nothing to provide consumers with a more accurate measure of the speed that can be expected from an Internet connection. Not only does the use of contention ratios fail to account for the effect of factors beyond the control of the Internet access provider,²⁷

²⁵ The Commission also should coordinate its data collection efforts with NTIA, which will receive substantial amounts of data through its implementation of the Broadband Data Improvement Act (BDIA). *See* Department of Commerce, National Telecommunications and Information Administration, State Broadband Data and Development Grant Program, Docket No. 0660-ZA29, Notice of Funds Availability (rel. July 2, 2009) (*NTIA Mapping NOFA*).

²⁶ Free Press Comments at 285-86.

²⁷ *Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Service to All Americans, Improvement of Wireless Broadband Subscribership Data, and Development of Data on Interconnection Voice over Internet Protocol (VoIP) Subscribership*, WC Docket No. 07-38, Report and Order and Further Notice of Proposed Rulemaking, 23 FCC Rcd 9691 (2008).

contention ratios do not even provide a good measure of the speed of the “last mile” connection because those ratios assume that every customer uses service at the same time. But that assumption is simply irrelevant to any experience that consumers actually face, which means that contention ratios are a meaningless piece of information for consumers.²⁸

The Commission also should reject requests to abandon its policy of preserving the confidentiality of broadband data.²⁹ As NCTA has explained previously, broadband providers do not generally disclose information regarding the capabilities of their broadband networks or the success of any particular service offering at the detailed level that is reported on Form 477. If such information were made public, it undoubtedly would be used by competitors in developing their own strategies. The Commission recognized when it adopted the Form 477 reporting requirement that it was requiring companies to routinely provide competitively-sensitive information.³⁰ Since then, the Commission consistently has refused to make such information available in response to FOIA requests³¹ and that policy has been affirmed by the courts.³² Congress recognized the importance of confidentiality protection in adopting the Broadband Data Improvement Act.³³ Similarly, NTIA and RUS recognized the importance of preserving confidentiality in connection with the Notice of Funds Availability for broadband mapping

²⁸ Contention ratios also fail to capture the drop in speed that occurs with DSL service for homes that are farther away from the central office, i.e., two homes may have the same contention ratio but experience very different speed levels based on how far they are located from the central office.

²⁹ See, e.g., BroadbandCensus Comments at 12; Free Press Comments at 290-93.

³⁰ *Local Competition and Broadband Reporting*, CC Docket No. 99-301, Report and Order, 15 FCC Rcd 7717, 7758-59, ¶¶ 87-90 (2000).

³¹ See Letter from Kirk Burgee, Associate Chief, Wireline Competition Bureau, to Drew Clark, Senior Fellow and Project Manager, The Center for Public Integrity, FOIA Control No. 2006-493 (Sept. 26, 2006).

³² *Center for Public Integrity v. FCC*, 505 F. Supp. 2d 106, 116 (D.D.C. 2007) (“Accordingly, because the Court finds that disclosure of even redacted data from Part V would be likely to cause substantial competitive harm to filers, the FCC may withhold this data under [FOIA] Exemption 4.”).

³³ Broadband Data Improvement Act, P.L. No. 110-385, 122 Stat. 4096 (Oct. 10, 2008) (BDIA).

projects.³⁴ There is no reason for the Commission to depart from these well-established principles.

II. THE COMMISSION SHOULD REJECT PROPOSALS FOR UTILITY-STYLE REGULATION OF BROADBAND NETWORKS AND HIGH-SPEED INTERNET SERVICES

Along with dozens of other parties, NCTA’s comments explained that the broadband marketplace is working well to meet the needs of consumers. But the record makes clear that this view is not universally held. According to some parties, broadband in the United States is a disaster, as evidenced by our showing in certain international rankings.³⁵ They argue that there has been inadequate deployment of facilities and there is insufficient choice of providers.³⁶ They assert that where it is available, service is too expensive and too slow.³⁷ They claim that innovation and free speech are threatened by these inadequate networks and the “gatekeepers” that own them.³⁸ Finally, they maintain that this sorry state of affairs could have been avoided if only the Commission had made better policy choices, such as regulating all Internet access services under Title II and “retaining” network unbundling obligations.³⁹ And while it may not be enough at this late date, they conclude that adopting these policies now is the only chance we have to get back on track and restore our place in the rankings.⁴⁰

These critics are wrong. The broadband marketplace is not a “failure” that can only be “fixed” through massive regulation. Unlike other segments of the economy, broadband providers are not seeking government bailouts, they are not engaging in mass layoffs, and they

³⁴ *NTIA Mapping NOFA* at 14, 20-21.

³⁵ Free Press Comments at 18-20; Public Knowledge Comments at 22-24.

³⁶ Free Press Comments at 8; Google Comments at 3.

³⁷ CFA Comments at 21; Free Press Comments at 7; NASUCA Comments at 7-8.

³⁸ Free Press Comments at 150-51; MAP Comments at 1-4.

³⁹ Free Press Comments at 70-74; Public Knowledge Comments at 2-3.

⁴⁰ CFA Comments at 55; Free Press Comments at 25-30; Public Knowledge Comments at 2-3.

have not stopped investing. Cable operators and other network providers have invested, and continue to invest, hundreds of billions of dollars in private capital to build strong and growing businesses that employ over one million Americans. Moreover, customers are satisfied with the service they receive,⁴¹ new customers are taking service by the millions,⁴² and application providers that rely on broadband networks continue to flourish.

Just as the critics have misjudged the current marketplace, the highly regulatory policies they advocate also miss the mark. As Microsoft explains, today's "ever-more complex reality will require a new, agile policymaking framework – a framework that acknowledges that while not all aspects can be 'managed' through regulation, one can create policies both that lower the risk of adverse outcomes in the presence of complexity and uncertainty, and that allow officials to act more quickly to address unanticipated adverse phenomena."⁴³ The heavy-handed proposals that have been advanced by some – structural separation, network unbundling, common carrier regulation – are the polar opposite of the sort of "new, agile policymaking framework" that is needed today. Not only would these policies fail to improve the services offered to American consumers, they would jeopardize the substantial private sector investment upon which our current standing depends.

The success that the broadband marketplace enjoys today under the FCC's current regulatory approach – with new products, services and uses emerging daily – demonstrates clearly that a drastic change in policy is not warranted. While there are steps the Commission should consider to advance broadband deployment and adoption, including proposals advanced by NCTA and others in their initial comments, there is no basis for resorting to outdated

⁴¹ Press Release, *Over Two-Thirds of U.S. Households Subscribe to Broadband*, Leichtman Research Group (June 10, 2009) (Leichtman), available at <http://www.leichtmanresearch.com/press/061009release.pdf>.

⁴² Pew Internet Study at 7.

⁴³ Microsoft Comments at 2.

regulatory frameworks that undoubtedly will be a disincentive to broadband investment and deployment. The National Broadband Plan should be grounded in the principle that market-based solutions, augmented by a targeted government role, hold the key to ensuring that all Americans have access to broadband capability and the means to take advantage of the opportunities broadband offers.

A. The Commission Should Not Substitute Its Judgment For The Judgment Of the Marketplace.

1. The broadband marketplace is functioning well to stimulate growth, investment, and deployment.

Contrary to the gloomy perception created by some comments, the growth and development of the broadband marketplace has been a remarkable success. Under the Commission's current approach, cable operators and other infrastructure providers have invested billions of dollars each year to deploy new plant and upgrade existing plant.⁴⁴ Cable high-speed Internet service alone is available to more than 120 million households,⁴⁵ representing 92% of all American homes.⁴⁶

This competitive market has resulted in the availability of top-quality, reliable, cost-efficient broadband service. Consumers are overwhelmingly satisfied with the broadband service they get.⁴⁷ Recent research from Leichtman Research Group, Inc. (Leichtman) found

⁴⁴ See AT&T Comments at iv (“The private sector has invested hundreds of billions of dollars to build broadband networks from coast to coast over a variety of different fiber, copper, cable, wireless, satellite, and other platforms”); Comcast comments at 2; NCTA Comments at i, 9 (reporting that cable operators have invested over \$145 billion in broadband networks); Verizon Comments at 15-16 (“[I]n recent years, the private sector has invested more in broadband infrastructure – nearly \$70 billion annually and hundreds of billion over the last ten years – than the federal government has invested in all forms of transportation.”).

⁴⁵ ENTROPY ECONOMICS, *Bandwidth Boom: Measuring U.S. Communications Capacity from 2000 to 2008*, at 4 (June 24, 2009), available at <http://entropyeconomics.com/wp-content/uploads/2009/06/bandwidth-boom-measuring-us-comm-capacity-2000-08-062409.pdf>.

⁴⁶ AT&T Comments at 4; National Cable & Telecommunications Association, Industry Data, available at <http://www.ncta.com/Statistics.aspx> (reporting national data for March 2009).

⁴⁷ See Comcast Comments at 77 (“While there is still much work to do, the Commission cannot discount the success that has already been achieved by broadband competition in the private sector.”).

that 67% of broadband subscribers are very satisfied with their service, while only 4% are not satisfied.⁴⁸ Consumer satisfaction with marketplace offerings is reflected in the increasing numbers of Americans choosing to receive broadband service at their homes. Broadband adoption continues to increase at a rapid pace.⁴⁹ An April 2009 study by Pew Internet showed that 63% of adult Americans have broadband connections at home, a 15% increase from a year earlier.⁵⁰ The recent Leichtman research found that over two-thirds of U.S. households now subscribe to a high-speed Internet service, an increase from one-fifth of households five years ago.⁵¹ Adoption is getting stronger in some groups that the Commission has traditionally been concerned about reaching, such as elderly, low-income, and rural residents. From 2008 to 2009, the adoption rate among senior citizens grew by 58%, the adoption rate among the most low-income Americans increased 40%, and the rate in rural America grew 21%.⁵²

Given these statistics, there can be no plausible claim that the current regulatory framework has failed consumers.⁵³ The only reasonable conclusion to draw from these facts is that the Commission should continue its current regulatory strategy, and take action only in those limited areas where a market-based solution has not yet emerged.⁵⁴

⁴⁸ Leichtman at 2.

⁴⁹ See Comcast Comments 68-77 (reporting data showing that: broadband subscribership increased from 1.8 million to over 70 million between 1998 and 2007; around 1.5 million broadband subscribers were added in the first quarter of 2009 alone; and “the pace of adoption [of broadband] is among the fastest of any communications technology introduced in the United States over the last 150 years”).

⁵⁰ Pew Internet Study at 9.

⁵¹ Leichtman at 1.

⁵² Pew Internet Study at 15-16.

⁵³ See American Consumer Institute Comments at 11 (“The Commission’s light regulatory touch has been in recent years a major source of the remarkable growth of investment in wireless and wired networks, as well as the resulting increases in access, usage and contributions to overall economic welfare.”).

⁵⁴ NCTA Comments at 32. See also Comcast Comments at 22 (“This is a dynamic industry, and intrusive government regulation risks impairing that dynamism by impeding innovation and investment.”); Ferec Comments at 25-27 (“Regulatory restraint should continue to guide government policy, reserving *ex ante* regulatory intervention to targeted areas exhibiting demonstrable and sustained market failure.”); Time Warner Cable Comments at 23 (“Imposing unnecessary governmental mandates would most assuredly risk undoing the

2. Imposing significant new regulation on a complex, fast-moving marketplace is highly risky.

Broadband networks operate in a highly complex, fast-moving environment. New devices, new technologies, and new means of connecting to broadband and communicating between and among broadband devices emerge constantly.⁵⁵ The Commission's ability to anticipate marketplace developments in this environment and reflect them in its regulations is necessarily very limited. It is nearly impossible to predict which developments will emerge, take hold, and become meaningful in the market.

For instance, just a few years ago, services like Facebook, YouTube, and Twitter were unheard of. Now Facebook has 200 million users worldwide, with 100 million added in just the last 8 months, YouTube has 100 million monthly users in the United States, and Twitter has 7 million unique monthly users and grew by 77% in one month earlier this year.⁵⁶ Similarly, more than 65,000 wireless broadband applications have been developed for the iPhone in the first year of Apple's App Store and those apps have been downloaded over 1.5 billion times.⁵⁷ Applications ranging from the one offered by ZipCar (an application to let you find and start your rental car) to the Johnson & Johnson application (which allows persons to analyze their blood glucose levels wherever they are)⁵⁸ to Comcast's new app (which provides access to a e-mail, visual voice mail, address book synch, real-time TV listings and trailers of movies

benefits of plans to stimulate broadband supply and demand that arise from this effort and would undermine rather than advance the core purposes of this proceeding.”).

⁵⁵ See Microsoft Comments at 1.

⁵⁶ Stan Schroeder, The Web in Numbers: The Rise of Social Media, Mashable: The Social Media Guide, Apr. 17, 2009, available at <http://mashable.com/2009/04/17/web-in-numbers-social-media/>.

⁵⁷ Press Release, *Apple's App Store Downloads Top 1.5 Billion in First Year; More than 65,000 Apps; Over 100,000 Developers* (July 14, 2009), available at <http://www.apple.com/pr/library/2009/07/14apps.html>.

⁵⁸ Farhad Manjoo, *You Can Live Without Apple's New iPhone* (June 8, 2009) (“Over the last year, though, the iPhone has attracted something that none of its rivals can match: a devoted following of developers who are building amazing programs for the device.”), available at <http://www.slate.com/id/2220032/>.

available through Comcast On Demand)⁵⁹ have developed because Internet service providers have the flexibility to adapt and evolve to new uses and new problems and the current regulatory atmosphere encourages innovation and experimentation.⁶⁰

The Commission's focus in the National Broadband Plan should therefore be on continuing to ensure that regulatory policy does not interfere with this naturally developing marketplace innovation, either by preventing it from occurring or by pushing it in any particular direction.⁶¹ Regulations that would dictate, or rule in or out, particular business models or technologies could deter investments in these innovations, to the detriment of consumers and service providers alike,⁶² and would inevitably favor some competitors over others, locking providers into offering broadband service in a particular way and depriving Americans of the full range of benefits of the broadband marketplace.

Moreover, regulators could not reasonably be expected to keep up with the constant change that characterizes the broadband marketplace. Regulations that make sense today could quickly become outdated.⁶³ Indeed, regulations historically lag well behind technology. That

⁵⁹ Press Release, *Comcast Launches Free Mobile Application for iPhone™ and iPod touch®; Provides Mobile Access to Live TV Listings, SmartZone Email and Voice Mail, and Video on Demand Movie Trailers* (July 16, 2009), available at <http://www.comcast.com/About/PressRelease/PressReleaseDetail.aspx?PRID=900>.

⁶⁰ CCIA Comments at 3; Feree Comments at 17; US Telecom Comments at 7; Verizon Comments at 2.

⁶¹ Feree/Esbin Comments at 16-17, 24 (“[T]he FCC’s approach to refrain from imposing, and remove where existing, economic regulation of broadband Internet access services was an important, if not instrumental, factor in achieving the remarkable rate of infrastructure deployment and service innovation we see today.”); Time Warner Cable Comments at 23 (“While the national broadband plan will appropriately identify areas where the government must be proactive if broadband is to reach all consumers, restraint is both necessary and appropriate in other instances—specifically, with respect to proposed regulations that would result in increased costs for broadband providers without delivering corresponding benefits to consumers.”); Verizon Comments at 87-88 (“The Commission should encourage Congress to maintain a flexible, pro-growth regulatory approach for broadband, and should counsel against intrusive new broadband regulations that would undermine the current successes, stunt the continued evolution of broadband technology and the Internet, or lock in place a one-size-fits-all approach.”).

⁶² Comcast Comments at 22 (“This is a dynamic industry, and intrusive government regulation risks impairing that dynamism by impeding innovation and investment.”).

⁶³ See Windstream Comments at 5 (“The private sector is better able to identify and respond quickly to technological advancements and changes in consumer behavior, to ensure broadband investments are focused on

lag can be beneficial when the default is non-regulation, as new technologies are subjected only to regulation that is proven necessary or important to consumer welfare, such as imposing 911 requirements on VoIP service. That regulatory lag could prove fatal to new technologies, however, if the default regime includes complicated access and rate regulation that cannot be updated frequently enough to reflect the changing marketplace. Such government intervention in the broadband marketplace would bring unnecessary uncertainty, litigation, and rigidity to a well-functioning marketplace.

The proposals by some commenters to regulate how networks allocate capacity among the services they provide are particularly troubling.⁶⁴ Most broadband providers – including cable operators, telephone companies and wireless carriers – offer customers multiple services and face substantial competition for all their services. Accordingly, they have every incentive to allocate capacity in a way that best meets the needs of all their customers.⁶⁵ How capacity is allocated may vary from one area to another, depending on how consumers in each area use the network and may change over time as those uses evolve. Government regulation could not adequately or successfully replicate all the decisions that network operators make when determining how to use their network capacity,⁶⁶ could not evolve in a manner quickly enough to

facilities that will deliver the greatest returns to consumers.”); Verizon Comments at 41 (“Prescriptive regulations could never keep pace with the ever-changing challenges on the Internet.”).

⁶⁴ See, e.g., Public Knowledge Comments at 6-9.

⁶⁵ Time Warner Cable Comments at 26-29 (“The burgeoning broadband services marketplace will ensure that consumers continue to enjoy an open Internet in which they have unfettered access to services and applications of their choosing. Given the competitive nature of the broadband marketplace . . . , the ever-present threat of customer defections exerts a powerful discipline on service providers as they develop pricing plans, network management tools, privacy policies, and other facets of their offerings.”); Verizon Comments at 94-95 (“[I]nformed consumer choice among the existing and growing competitive broadband options is the most effective check on providers’ network management practices. . . . [A]ny provider that engages in network management practices that harm consumers will be identified and punished, while those that employ practices that benefit subscribers’ broadband experience will be rewarded.”).

⁶⁶ Verizon Comments at 93-94.

keep customers satisfied, and would represent an extraordinary intrusion into the day-to-day business decisions of individual network operators.⁶⁷

Moreover, there is no factual basis for any theory that cable operators are skimping on capacity for Internet services and hoarding video capacity. To the contrary, as Comcast’s comments demonstrate, cable operators’ widespread conversion of video delivery to digital format results in “additional bandwidth for the high-definition channels and faster Internet service that consumers are demanding.”⁶⁸ Comcast reports that at the same time it was converting some of its video delivery to digital, it was implementing a number of upgrades to offer faster Internet speeds and accommodating a 42% increase in Internet traffic on its network.⁶⁹ Rather than pursuing the fiction that the Commission could somehow ascertain the “right” allocation of capacity on a network, it should work to preserve a regulatory environment where network providers continue to have the incentive and the ability to make these choices in the manner that best meets the needs of their customers.

B. Imposing Common Carrier Regulation On Broadband Is Not The Best Means Of Promoting Broadband Deployment.

Some commenters advocate wide-ranging regulatory intrusion into the high-speed Internet business – suggestions ranging from the Consumers Union proposal to require symmetric capabilities⁷⁰ to NASUCA’s suggestion that all broadband services be regulated

⁶⁷ Dictating how much network capacity is dedicated to video and how much to Internet use – like other proposals to regulate the provision of content by cable operators – would also raise serious First Amendment concerns. See *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 635 (1994) (“There can be no disagreement on an initial premise: Cable programmers and cable operators engage in and transmit speech, and they are entitled to the protection of the speech and press provisions of the First Amendment. . . . [R]equiring cable systems to set aside a portion of their channels . . . regulate[s] cable speech . . .”). Whether restricting the amount of capacity used for traditional cable service or imposing common carrier or “net neutrality” regulations on the provision of Internet content, the government would be restricting protected speech.

⁶⁸ Comcast Comments at 36.

⁶⁹ *Id.*

⁷⁰ Consumers Union Comments at 19.

jointly by federal and state authorities⁷¹ to NATOA's proposed requirement that providers dedicate an unspecified "reasonable amount" of network capacity for community activities and be refused tax benefits for infrastructure deployment unless they provide cost-based access to network capacity.⁷² The Commission should reject such misguided calls for heavy-handed regulation of broadband services. The financial, technological, and market risks that would ensue from the imposition of a common-carrier-like regime on broadband would fundamentally conflict with the Commission's goal of promoting growth and competition in broadband services.

More importantly, adopting such proposals would sidetrack the Commission from the far more important task of evaluating and adopting the many proposals that commenters offer that would more directly and successfully promote and incent broadband deployment and adoption in the communities that need it most. Instead of being paralyzed by calls for adopting a massive, complex, and thorny regulatory scheme, the Commission should devote its efforts to creating a "focused, practical, achievable broadband plan."⁷³ A focused approach is particularly important given that the Commission has "limited resources and urgent demands."⁷⁴ Suggestions that put "significant strains on these resources" – such as the urging by Free Press and others that the Commission re-examine every broadband-related decision it has ever issued⁷⁵ – should take a back seat to more cost effective and easily achievable strategies.

⁷¹ NASUCA Comments at 11.

⁷² NATOA Comments at 20.

⁷³ Remarks of then-FCC Acting Chairman Copps at the Pike & Fischer Broadband Policy Summit V (June 18, 2009) available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-291492A1.pdf.

⁷⁴ Letter from Michael J. Copps, Acting Chairman, Federal Communications Commission to The Honorable Henry A. Waxman, Chairman, Committee on Energy and Commerce, U.S. House of Representatives (June 5, 2009).

⁷⁵ Free Press Comments at 5.

1. The comments offer many thoughtful proposals for how best to promote broadband deployment, especially in the unserved areas that should be the focus of the National Broadband Plan.

While Free Press and others seek to portray common carrier-like rate and access regulation as the best way for the Commission to “fix” the U.S. broadband marketplace, dozens of commenters offered suggestions for how to promote the development of broadband services to unserved areas that do not require the Commission to reverse years of the well-reasoned bipartisan policy of refraining from such regulation. Many support NCTA’s suggestions for reforming universal service subsidies, revising pole attachment and conduit policies, targeting subsidies at unserved areas, and enabling and encouraging broadband Internet adoption.⁷⁶

Commenters overwhelmingly agree that changes to the universal service subsidy system would advance the nation’s goal of increased broadband deployment and adoption.⁷⁷ But as NCTA observed in its initial comments,⁷⁸ simply adding broadband Internet service to the list of supported services is not the answer. Rather, the Commission must first end the vast overspending on support for the high-cost component of the universal service fund, especially support for areas also served by competitive cable voice providers. It then should use those funds in the most effective way possible – to support the extension of broadband to those “areas that are unserved today and would remain unserved by broadband Internet service in the absence of USF subsidies.”⁷⁹

One point repeatedly stressed by commenters is that support for bringing broadband services to unserved areas should have priority over support for broadband deployment to areas

⁷⁶ NCTA Comments at 30-36.

⁷⁷ AT&T Comments at 86-87; CCIA Comments at 9-12; CTIA Comments at 42-44; Free Press Comments at 210-234; NCTA Comments at 32-34; NECA Comments at 12-18; Public Knowledge Comments at 17-19; Verizon Comments at 8-9.

⁷⁸ NCTA Comments at 32-34.

⁷⁹ Comcast Comments at 57.

already served by at least one provider.⁸⁰ Doing so targets available funds to “the country’s most pressing broadband needs.”⁸¹ In contrast, government support for broadband deployment in areas already served gives the subsidized provider an unfair competitive advantage, and is not the best and highest use of limited funds.⁸²

Commenters also echoed NCTA’s proposal to increase broadband deployment by adopting a pole attachment rate formula that establishes a reasonable rate and parity among broadband providers. Ensuring that broadband service providers have timely and reasonably priced access to pole attachments and conduits would increase providers’ ability to timely execute their broadband deployment plans.⁸³ One method of accomplishing this goal would be to apply the existing cable rate formula for pole attachments to all connections used by broadband services.⁸⁴

⁸⁰ Comcast Comments at 45-47 (“[T]he first place for the Commission to focus its attention . . . is on connecting rural communities where there are natural commercial limitations on providing broadband.”); Cox Comments at 4-5 (“Extending broadband availability to homes where it currently does not exist should be government’s top priority.”); NASUCA Comments at 45 (“NASUCA agrees with the Joint Board that the initial focus should be on bringing broadband to unserved areas and populations.”); NCTA Comments at 30-32 (“[T]he focus of the plan should be on extending broadband facilities to areas that currently lack broadband capability”); Qwest Comments at 2-5 (“[T]he Commission should focus its efforts in working with NTIA and RUS to ensure that facilities which can support broadband services reach unserved areas.”); Time Warner Cable Comments at 18-19 (“One essential objective of the national broadband plan must be the expansion of broadband infrastructure to currently unserved areas. This goal goes to the heart of what Congress sought to accomplish with the recent broadband stimulus programs, and is an underlying theme of the Commission’s Rural Broadband Strategy as well.”); Verizon Comments at 9-10, 125.

⁸¹ Verizon Comments at 10.

⁸² NCTA Comments at 31 (“Companies that have taken the financial risk of serving a market without government assistance cannot realistically be expected to continue to do so if they must face a government-subsidized competitor.”); NYPSC Comments at 10 (“To minimize undue assessments and the resulting economic drag on broadband, subsidies should not fund the installation of duplicative, competing networks where none exist.”); Qwest Comments at 14 (“Nor should the support subsidize competition or build duplicate networks.”); Time Warner Cable Comments at 19-20 (“[D]irecting subsidies to areas where broadband service already is available from at least one provider risks giving artificial advantages to particular competitors in such areas.”).

⁸³ American Cable Association (“ACA”) Comments at 9; Clearwire Comments at 10; Comcast Comments at 66; T-Mobile Comments at 22-23; Windstream Comments at 18.

⁸⁴ NCTA Comments at 34-36; Time Warner Comments at 23-24. *See also* Windstream Comments at 22 (“[B]y uniformly applying a single pole attachment rate formula, the Commission would further the Commission’s goal of ‘ensur[ing] regulatory parity among providers of similar services’ in a manner that ‘will minimize marketplace distortions arising from regulatory advantage.’”).

As an additional priority, commenters express widespread support for efforts to stimulate demand for broadband services through consumer support and education programs.⁸⁵ Several commenters suggest that the Commission should develop “Lifeline-like programs that help defray the costs associated with broadband Internet access service subscriptions and equipment for low-income households.”⁸⁶ A broad range of commenters also recognize that “[l]ack of education stands as one of the key impediments to broadband adoption,”⁸⁷ and there is broad agreement that “the Commission should also consider more formally educating consumers on the value of broadband.”⁸⁸

Finally, many commenters agree that the Commission should explore improvement of coordination between agencies responsible for broadband programs.⁸⁹ One commenter recommends that the FCC use the National Broadband Plan to better coordinate the “patchwork of federal and state programs [that] support deployment of communications services” to “vulnerable populations.”⁹⁰ Another calls on the Commission to work with other agencies and state governments to establish benchmarks to deploy broadband Internet service to unserved areas.⁹¹ Accomplishing all of these goals would put the Nation on a track to achieve faster and more geographically extensive broadband deployment.

⁸⁵ Cisco Comments at 24-28; Comcast Comments at 68; Connected Nation Comments at 15; Cox Comments at 3; Feree/Esbin Comments at 24-25; Intel Comments at 10-13; Time Warner Comments at ii, 20-21.

⁸⁶ Time Warner Comments at 20-21. *See also* Alcatel Lucent Comments at 27-28; AT&T Comments at 47-51; Cisco Comments at 28; Comcast Comments at 93-95; Free Press Comments at 237-43; NATOA Comments at 50; Qwest Comments at 15.

⁸⁷ AT&T Comments at 43-47.

⁸⁸ NCTA Comments at 37. *See also* Benton Foundation Comments at 14; Comcast Comments at 89-91; Free Press Comments at 243; Google Comments at 34; Intel Comments at 13; NASUCA Comments at 63-64.

⁸⁹ Comcast Comments at 24-25; CTIA Comments at 38-39, Microsoft Comments at 8; NCTA Comments at 32.

⁹⁰ CTIA Comments at 38.

⁹¹ Comcast Comments at 49.

2. Imposing common carrier obligations on broadband networks and services would work against the National Broadband Plan.

Many commenters recognize that a burdensome regulatory regime, including the imposition of wholesale access obligations or rate regulation, would deter investment in and deployment of broadband rather than increase broadband availability.⁹² Spurring broadband deployment “requires a policy and regulatory climate that welcomes private sector investment and innovation . . . by eliminating regulatory burdens and uncertainty, providing economic incentives for innovation and investment.”⁹³ State regulators agree with broadband providers that facilities-based competition in a marketplace free from onerous regulatory requirements is the most efficient method of ensuring further broadband deployment.⁹⁴ As one state regulatory agency warned, “It is important in developing and adopting a national broadband policy that the end result does not discourage private investment.”⁹⁵ Another commenter agreed, saying “[T]he Commission should recognize that the more intensely regulated the communications sector is, the more risk will be assigned by capital markets wary of the potential of disruptive regulatory decisions.”⁹⁶

Hinging the National Broadband Plan on imposing stringent common carrier regulation on broadband not only would curb private investment, but also would be highly unlikely to result in any additional deployment. Other commenters echoed NCTA’s observation that attempts at unbundling requirements have failed in the past to increase competitive service offerings or to

⁹² See, e.g., AT&T Comments at 113; Cisco Comments at 22; Comcast Comments at 22; NCTA Comments at 39-41; Progress and Freedom Foundation Comments at 16-17; Time Warner Cable Comments at 22; US Telecom Comments at 11; Verizon Comments at 87-88.

⁹³ Comcast Comments at 22.

⁹⁴ See, e.g., NY Public Service Commission Comments at 8; US Telecom Comments at 14.

⁹⁵ NY Public Service Commission Comments at 8.

⁹⁶ US Telecom Comments at 14.

promote facilities-based deployment in rural areas and that there is no reason to think that they would be more likely to succeed now.⁹⁷

Even those who call for such regulation admit that the FCC's implementation of network unbundling requirements failed to open the incumbent telecommunications marketplace.⁹⁸ Such requirements would be even more disastrous in the broadband marketplace. One recent economic study found that "mandatory unbundling can affect incentives to invest in the network by reducing the potential returns to that investment."⁹⁹ AT&T cites another study that found that policies promoting broadband competition through unbundling requirements resulted in less fiber deployment than policies promoting facilities-based competition.¹⁰⁰

Most importantly, forcing broadband network providers to share their networks or submit to other common carrier-like regulation does absolutely nothing to address the important issue of bringing broadband to unserved areas and vulnerable populations, which should be the Commission's primary objectives in creating the broadband plan. As AT&T observes, successfully addressing broadband availability in unserved areas "will not be found in a host of regulatory mandates focused on intramodal competition."¹⁰¹

⁹⁷ AT&T Comments at 82; NCTA Comments at 24-25; Verizon Comments 81-83.

⁹⁸ Consumers Union, et al. Comments at 30.

⁹⁹ Wallsten and Hausladen, *Net Neutrality, Unbundling, and their Effects on International Investment in Next-Generation Networks*, Review of Network Economics (March 2009). See also William J. Baumol et al., AEI-Brookings Joint Ctr. for Reg. Studs., *Economists' Statement on Network Neutrality Policy 1* (Mar. 2007) ("[I]ntroducing price regulation risks discouraging the healthy process of risk-taking innovation – which is especially important in telecommunications."); Kevin Werbach, Office of Plans & Policy, FCC, *Digital Tornado: The Internet and Telecommunications Policy*, at 46 (Mar. 1997) ("Wherever possible, market forces should be harnessed to take the place of direct regulatory intervention."), available at http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp29.pdf.

¹⁰⁰ AT&T Comments at 82.

¹⁰¹ *Id.*

Imposition of common carrier regulation on broadband networks would also pose substantial operational issues.¹⁰² Any requirement for network sharing and the resale of wholesale broadband services will only serve to stall network development, because it will force providers to divert their attention and resources to implementing an extensive new service scheme to address resale and related issues.¹⁰³ Unlike ILECs, cable operators and many other broadband providers have no history of providing wholesale services and have none of the operational infrastructure (*e.g.*, OSS) to do so. Unbundling shared networks also poses substantial difficulties because while the rate structure of the public switched telephone network “is built around different economics and engineering assumptions for copper networks” with “arbitrary boundaries such as local calling areas, Local Access Transport Areas and social policy goals that have been funded as implicit subsidies through the rate recovery model,”¹⁰⁴ the business plans for cable and other broadband networks have not been developed based on such financial and technical assumptions, and could not predictably support the added burdens posed by common carrier-like access or rate regulations.

For these reasons, calls for the Commission to “reimpose” Title II common carrier obligations because “removing” them was bad for consumers are particularly disingenuous as applied to cable.¹⁰⁵ The Commission *never* has treated cable modem service as a Title II service

¹⁰² Philip Weiser, *The Future of Internet Regulation*, U.C. Davis L. Rev. (forthcoming 2009) (U. Colo. Legal Stud. Res. Paper Series, Working Paper No. 09- 02, at 5 (Feb. 2, 2009)) (“[T]he traditional model of common carriage – premised on prescriptive rules, enforced by filings of tariffs, and often accompanied by rate regulation – is ill-suited to the Internet’s dynamic and more competitive nature.”), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1344757.

¹⁰³ See Eli Noam, *Separating Telecoms*, Fin. Times, May 15, 2009 (“American history . . . suggests that structural solutions, while intellectually appealing, create major transaction costs and retard network evolution.”), available at <http://www.ft.com/cms/s/0/8b149b84-41a1-11de-bdb7-00144feabdc0.html>.

¹⁰⁴ Level 3 Comments at 4.

¹⁰⁵ See Public Knowledge Comments at 25.

or required cable operators to separate content from conduit,¹⁰⁶ which is a strong reason cable has always been a leader in broadband deployment and adoption. Imposing such a requirement now would not constitute the reversal of a bad decision to “deregulate,” as some commenters suggest,¹⁰⁷ but rather would be a drastic decision to impose common carrier regulation for the first time ever on cable broadband and most other broadband services, an approach that the Commission has repeatedly and correctly rejected.¹⁰⁸

3. The Commission should acknowledge the connection between “success” in broadband rankings and government financial support.

Some commenters point to access requirements imposed on broadband service providers in other countries as “proof” that unbundling can increase broadband deployment.¹⁰⁹ These arguments are premised on the idea that differences in international rankings can be adequately explained by differences in regulatory regimes. Putting aside the problems inherent in many of these rankings, as explained by others in this proceeding,¹¹⁰ the causal relationship between regulatory regime and “success” in these rankings is tenuous, at best. To the extent the Commission considers looking at policies from other countries as potential models for regulation in this country, it should engage in a more substantive analysis than is contained in some comments and investigate the extent to which “success” in various international broadband rankings is a function of government financial support mechanisms and demand-side programs that have been implemented in those countries.

¹⁰⁶ See NCTA Comments at 42.

¹⁰⁷ Free Press Comments at 261; Public Knowledge Comments at 23.

¹⁰⁸ See NCTA Comments at 45.

¹⁰⁹ See, e.g., Public Knowledge Comments at 23-27; NATOA Comments at 20; XO Communications Comments at 6-7.

¹¹⁰ Comcast Comments, Appendix at 1; Hahn/Wallsten Comments at 2; Wallsten Update Report at 2-3.

Every country that is ranked higher than the United States in the OECD rankings had some level of government ownership of the dominant telecom provider, and in many cases the government continues to hold a large interest.¹¹¹ As compared to the United States, cable television was much slower to develop in these countries, and therefore the government-owned network not only possessed a monopoly for phone service, but also was the only wireline network capable of providing high-speed Internet service. In these scenarios, some sort of wholesale requirement, such as network unbundling or structural separation, may have been the best, if not the only, way to introduce competition. And government ownership of, and financial support for, that network may ameliorate the otherwise negative financial consequences of such a policy on shareholders.

None of these factors are present in the United States. The United States has thousands of facilities-based providers that are privately owned, with no history of government ownership. Moreover, because cable operators have deployed facilities so extensively, most areas of the country are served by at least two wireline networks.

Many of the countries that purportedly rank higher than the United States in broadband also have a track record of providing significant government financial support (e.g., tax incentives, direct subsidies) for broadband investments. The Korean government, for example, provided \$1.5 billion in cash and \$1.0 billion in loans as part of the 1995-2005 Korean Information Infrastructure initiative.¹¹² The combined amount of \$2.5 billion represents 0.6% of

¹¹¹ In a number of these countries – Norway, Sweden, Finland, Switzerland, Luxembourg, Belgium and France – the government owns more than 25% of the company.

¹¹² *E Government Success. The People, Projects and Benefits*, Korea IT Industry Promotion Agency, at 8, <http://unpan1.un.org/intradoc/groups/public/documents/untc/unpan009297.pdf>; see also *Broadband Deployment in South Korea*, Brunel Broadband Research Centre, at 14, <http://www.ero.dk/36F42EE2-090B-48D6-B22D-D4B8D832235D?frames=no&> (Brunel).

Korea's 2001 Gross Domestic Product (GDP).¹¹³ In contrast, until the American Recovery and Reinvestment Act earlier this year, U.S. government financial support for broadband construction was limited. And while the \$7.2 billion to be distributed by NTIA and RUS pursuant to the Recovery Act will be helpful, it represents just 0.05% of the 2008 U.S. GDP.¹¹⁴ If this country were to replicate Korea's government spending on broadband, it would require the expenditure of more than \$80 billion in government – and taxpayer – funds.¹¹⁵

Countries that supposedly rank higher than the United States also tend to have a history of supporting programs that stimulate demand for high-speed Internet services. As NCTA explained in its opening comments, one of the most common – and effective – measures has been the subsidization of computers in consumers' homes.¹¹⁶ Of the 21 nations for which data are available on percentage of households with a computer, there is a 0.85 correlation with the 2007 [OECD] household penetration rank."¹¹⁷ And in many cases, the percentage of households with a computer – and penetration of broadband service – has been expanded by government policies.¹¹⁸

In the absence of any history of government ownership of broadband providers, significant government financial support for broadband construction, or demand-side programs

¹¹³ Brunel at 7 (2.5B/422.7B=0.6%).

¹¹⁴ Bureau of Economic Advisors, <http://bea.doc.gov/national/pdf/dpga.pdf>, at D-3.

¹¹⁵ Even if that happened, it might still be difficult for the United States to match Korea's performance because the U.S. could never match the extremely high percentage (49 percent) of the Korean population that lives in high-rise apartment buildings. Brunel at 13.

¹¹⁶ NCTA Comments at 27-28.

¹¹⁷ ITIF Report at 37.

¹¹⁸ For example, "[t]he Swedish government subsidized personal computer purchases via tax deductions for companies that bought computers for their employees' personal use; and as a result, almost 90 percent of Swedes can get access to the Internet at home on a PC." *Id.* at ix. Similarly, "[t]he sole mission of South Korea's Agency for Digital Opportunity and Promotion Korea is to promote digital literacy and access to computers, including through training programs to let people buy computers through a low-priced purchase installment system." *Id.*

to stimulate adoption, the suggestion that the U.S. could have, and would have, ranked higher in broadband availability or adoption if the Commission had adopted a more regulatory framework is simply not credible. The importance of supporting policy choices with intelligently crafted financial support mechanisms is demonstrated by the E-Rate program. As Chairman Genachowski noted in remarks earlier this month, the U.S. performs well in one important category of international rankings – broadband connections in schools.¹¹⁹ The Chairman attributed this success to the sound planning that went into creation of the E-Rate program and that certainly is a contributing factor. But sound planning alone would not have produced results without extensive financial support – roughly \$2.25 billion a year for the last 12 years or \$27 billion. The E-Rate program demonstrates that, where the market is not producing the desired levels of investments, good policy will not achieve results unless it is backed up by the financial resources to ensure that investments are viable.

III. THE COMMISSION SHOULD CONSIDER OPENNESS ISSUES IN A SEPARATE PROCEEDING

As discussed in the foregoing sections, the principal objective of this proceeding – as envisioned by Congress – is to identify ways to maximize broadband availability and adoption. These are not, of course, the *only* public policy issues involving the Internet. Issues of “openness” and “net neutrality” have been debated in policy forums for years. Academics, regulators and stakeholders in the provision of broadband services generally agree that subjecting the Internet to regulatory constraints will affect and alter the service that is ultimately available to consumers. There is, however, a broad divergence of views as to *how* the service will be affected and whether the effects will be beneficial or detrimental to consumers.

¹¹⁹ Statement of Chairman Julius Genachowski at Seneca High School, Erie, Pennsylvania (July 1, 2009).

Many parties have included in their comments in this proceeding sections generally restating their positions on these policy questions – questions on which the Commission previously sought comment in a separate proceeding. In a *Notice of Inquiry* adopted more than two years ago, the Commission asked about the *behavior* of network platform providers and others – specifically, “whether network platform providers and others favor or disfavor particular content, how consumers are affected by these policies, and whether consumer choice of broadband providers is sufficient to ensure that all such policies ultimately benefit consumers.”¹²⁰

The Commission had already addressed these matters a year earlier when it adopted (sua sponte and without any notice-and-comment procedures) a “Policy Statement” setting forth four “principles” to guide policy making regarding the Internet. Those principles generally addressed matters of openness, affirming that consumers should be entitled (1) “to access the lawful Internet content of their choice;” (2) “to run applications and use services of their choice, subject to the needs of law enforcement;” and (3) “to connect their choice of legal devices that do not harm the network;” and should also be entitled (4) “to competition among network providers, application and service providers, and content providers.”¹²¹ While the Commission stated that it would “incorporate the above principles into its ongoing policymaking activities,”¹²² it made clear that it was “not adopting rules in this policy statement.”¹²³ And it added the caveat that the principles were “subject to reasonable network management.”¹²⁴

¹²⁰ *In re Broadband Industry Practices*, Notice of Inquiry, 22 FCC Rcd 7894 (2007).

¹²¹ *In the Matters of Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Policy Statement, 20 FCC Rcd 14986, 14988 (2005).

¹²² *Id.*

¹²³ *Id.* at n.15

¹²⁴ *Id.*

In its 2007 *Notice of Inquiry*, the Commission specifically asked for comment on whether the *Policy Statement* should be amended to include a “nondiscrimination” requirement, whether there were any identifiable “market failures” resulting from practices of network operators, and whether the Commission had authority to enforce its *Policy Statement*. How to foster full and open competition in the broadband marketplace and how to ensure a free flow of Internet content to consumers are important – and much debated – issues of public policy. The comments on net neutrality and discrimination in the Commission’s 2007 proceeding were sharply divided (as they are in the current proceeding), and the Commission has never resolved the broad policy questions at issue.

Nothing in the 2007 *Notice of Inquiry* suggests that the matters at issue bear any significant relationship to the ubiquitous deployment and adoption of broadband services, nor do the comments supporting openness and net neutrality in this proceeding. Free Press, for example, concedes that “the impact of Network Neutrality obligations on network investment *is likely negligible....*”¹²⁵ Similarly, there is no reason to believe that such requirements would in any way promote greater adoption of broadband services. A recent survey by the Pew Research Center’s Internet & American Life Project identifies the reasons why dial-up and non-Internet users choose not to purchase broadband at home. Not surprisingly, openness and net neutrality do not show up as relevant factors or considerations.¹²⁶

For the most part, the proponents of such requirements simply assert that the Commission, in developing a national broadband plan “must” incorporate restrictions to ensure the openness of the Internet. For these parties, the openness of the Internet is an a priori policy preference in and of itself – not a means to ensure deployment, adoption or any other goal. Their

¹²⁵ Free Press Comments at 146 (emphasis added).

¹²⁶ Pew Internet Study at 24-25.

concern is that absent regulation, network owners will engage in anticompetitive activities that unfairly promote certain Internet content and prevent or hinder other content providers from reaching consumers,¹²⁷ and that this, in turn, will deter innovation in the creation of new services and applications.¹²⁸

As NCTA and others have argued in the 2007 proceeding and elsewhere, there is no basis for the notion that, absent an intrusive and restrictive regulatory regime on nondiscrimination and “net neutrality,” innovation, openness and competition will be stifled by network owners.¹²⁹ In fact, the explosive and continued growth in the quantity and quality of applications and content available on the Internet belie any notion that network operators are suppressing or impeding the Internet goals that the proponents of net neutrality envision and support.

But while network neutrality obligations and the adoption of a nondiscrimination principle have little to do with *promoting* deployment and adoption of broadband service, the record shows that they would have a serious *adverse* effect on network investment. Economist Michael Katz, in an appendix to Verizon’s comments, confirms that this is the case:

It is important to recognize that public policies regarding business practices in the areas of network management, vertical contractual relations, and sophisticated pricing can also have significant effects on network investment incentives. This is so because . . . network management, vertical contracting, and sophisticated pricing can all promote investment in both network infrastructure and complementary equipment and applications. It follows that *public policies that restrict these business practices can have significant adverse effects on network investment incentives.*¹³⁰

Also, as Katz points out, it is both unnecessary and counterproductive to put “one size fits all” requirements in place as prophylactic measures to prevent hypothetical problems before they

¹²⁷ See, e.g., Free Press Comments at 130; Media Access Project Comments at 6.

¹²⁸ See, e.g., Public Knowledge Comments at 7.

¹²⁹ See, e.g., NCTA Comments, WC Docket No. 07-52, at 4-22.

¹³⁰ “Investment, Innovation, and Competition in the Provision of Broadband Infrastructure,” Declaration of Michael L. Katz, Attachment 1 to Verizon Comments, at 11 (emphasis added).

have occurred. If isolated problems arise, case-by-case enforcement of the antitrust laws is a sufficient and narrowly tailored way to assess whether the effect of a particular practice is, on balance, to promote or impair competition. And if a pattern of undesirable conduct becomes apparent, rules can be considered at that time. On the other hand, “[p]ublic policies that force a single approach to openness on the industry are likely to harm innovation and limit experimentation. *If policy makers mandate a single approach and get it wrong, there is no safety valve to fix the problem, as there would be under unfettered competition.*”¹³¹

Applying a net neutrality/nondiscrimination principle to matters of *network management* can have particularly pernicious effects. Network operators should not be prevented from taking steps that actively manage the flow of data and content where the purpose of such steps is to protect the quality of service for customers by preventing network congestion. Moreover, as several parties have pointed out, a nondiscrimination principle could effectively deter and prevent network operators from taking steps to prevent the distribution of unlawful content and applications.¹³²

For example, the use of the Internet to distribute pirated, copyrighted content is a pervasive problem. As MPAA points out, there has been ongoing investment, innovation and experimentation in the development of network management tools that “show promise for reducing or deterring online copyright infringement.”¹³³ In addition, as MPAA points out,

Many of these same technologies are used to prevent or limit spam, computer viruses and even child pornography. Any policy that limits the ability to manage copyright infringement will necessarily affect the ability to manage other forms of illegal content to the detriment of online consumers.¹³⁴

¹³¹ *Id.* at 3 (emphasis added).

¹³² *See, e.g.*, Joint Comments of American Federation of Television and Radio Artists, et al at 3 (MPAA Comments); Songwriters Guild of America Comments.

¹³³ MPAA Comments at 6.

¹³⁴ *Id.* at 7.

As the Rural Utilities Service and the National Telecommunications and Information Administration have recently recognized in their joint Notice of Funds Availability implementing the American Recovery and Reinvestment Act of 2009, network operators should not be precluded from adopting “measures to address spam, denial of service attacks, illegal content, and other harmful activities.”¹³⁵ Yet a principle flatly prohibiting “discrimination” could impair the use of such measures. Even if there were an exception for management tools aimed at unlawful content or prevention of congestion, an antidiscrimination principle would deter innovation and experimentation in the use of any such tools that might only incidentally affect other content.

Moreover, as some commentators have begun to recognize, network operators should not be the only focus of attention for those concerned about preserving the openness of the Internet as it continues to develop. More and more of the applications used by consumers are provided on the Internet – in the “cloud” – instead of stored on home computers or on the servers of network operators. And they are increasingly accessed by devices such as the iPhone or the Kindle, which bypass both the home computer and the Internet service provider that serves that home computer.¹³⁶ As Jonathan Zittrain, Co-Founder and Faculty Co-Director of the Berkman Center for Internet & Society at Harvard University, has pointed out, it is the providers of these cloud-based platforms and devices – not the network providers – that are actively determining which applications and content will or will not be made available for Internet distribution.¹³⁷

¹³⁵ *RUS/NTIA NOFA* at 29.

¹³⁶ See, e.g., J. Zittrain, “Lost in the Cloud,” *New York Times*, July 20, 2009, p. A19.

¹³⁷ *Id.* See also J. Zittrain, *The Future of the Internet – and How To Stop It*, “Preface to the Paperback Edition” ix-x (2008).

Professor Zittrain notes that “[t]he market is churning through these issues” and “[w]e’ve only just begun to measure this problem, even as we fly directly into the cloud.”¹³⁸ If the Commission is to focus on issues of openness and net neutrality, it is clear that it cannot do so comprehensively unless it also takes a hard look, and asks meaningful questions, about those operating in the other layers of the Internet.

All these reasons weigh heavily against recommending prophylactic rules or principles mandating openness, nondiscrimination and net neutrality. At the very least, consideration of such obligations in *this* proceeding, as elements of a National Broadband Plan, is completely unwarranted and out of place. Requirements of this sort are not aimed at, and are at odds with, what should be the primary objectives of this proceeding – promoting broadband investment and deployment in unserved areas, and broadband adoption by unserved segments of the population, as rapidly as possible. While those objectives are universally shared, no such consensus – and no such urgency – exists regarding openness and net neutrality.

The Commission should continue to examine these issues in the existing 2007 proceeding, where there is no Congressionally-imposed deadline and no accompanying matters that must be resolved by that deadline. In the National Broadband Plan proceeding, however, the Commission and interested parties should keep their eye on the ball and move expeditiously and constructively towards the adoption of a plan that will ensure the ubiquitous availability and adoption of broadband throughout the nation.

¹³⁸ *Id.*

CONCLUSION

The Commission should focus its efforts on achieving the congressional goal of making broadband capability available to all Americans. Achieving this goal depends on the private sector continuing to invest billions of dollars in facilities and equipment. Adoption of any significant new regulation of Internet service providers would discourage the necessary investment, thereby jeopardizing the Commission's ability to achieve the goal established by Congress. Accordingly, for the reasons explained above, the Commission should take concrete steps to promote deployment of broadband networks and adoption of Internet services, but otherwise should avoid significant changes in the current regulatory framework for Internet services.

Respectfully submitted,

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July 21, 2009