AALBORG UNIVERSITY
COPENHAGEN

January 31, 2014

Hon. Fred Upton
Chairman
Energy and Commerce Committee
US House of Representatives
2125 Rayburn House Office Building
Washington, DC 20515

Hon. Greg Walden
Chairman
Communications and Technology Subcommittee
Energy and Commerce Committee
US House of Representatives
2125 Rayburn House Office Building
Washington, DC 20515

Re: Communications Act Update

As an American researcher working in Europe, I am dismayed by the "Europe is better" detractors in the US who claim that Europe has better broadband and communications policies. I study communications infrastructure investment and observe that there has been a near decade decline in EU communications investment per capita when compared to the USA. Ten years ago the EU accounted for over one-third of the world's investment in capital equipment (CAPEX); that amount has plummeted to less than one-fifth today.

Meanwhile the US has kept a commitment of investing in America's communication infrastructure at a consistent rate, nearly 25% of the total global outlay. Americans who are just 4% of the world's population enjoy one fourth of its broadband investment. Per capita this amount is twice that of the EU.

EU communications policy is best described as a tortured approach. Managed access and wholesale price ceilings have created a terrific regulatory edifice but not investment in next generation broadband technologies. Having plenty of data from this continent-wide experiment, one can find a few exceptional successes, but the the conclusion is clear. There is a tradeoff: regulated low prices mean no profits and hence underinvestment. No incumbent provider wants to invest if it can't recover a profit, and no new entrant will invest in infrastructure if it can lease the incumbent's infrastructure at a low wholesale rate. Thus Europeans have mortgaged their digital future in exchange for short term comfort.

An even more depressing story for Europeans is they fell behind in mobile and Internet innovation. In 2002 there were six European phone makers making up 50% of the world's phones, but now with the Microsoft acquisition of Nokia, there are none. Of the top 25 Internet companies, 15 come from the USA, but just 1 from the EU. America's venture capital market is six times larger than Europe's. Even the fact that I work in Europe today is on account of a shortage of local highly-skilled workers. It's no surprise that many EU leaders call for the abandonment of the European approach in favor of that of the American.

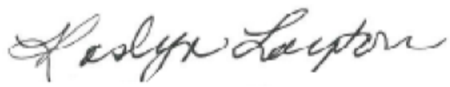
Meanwhile the US has transformed its economy because of broadband. While measuring the Internet economy is difficult, as Internet enabled services and efficiencies have long been internalized in many traditional companies, the Internet economy drives at least 4-5 percent of America's gross domestic product. A more specific number is exports of digital goods and services. This amounted to more than $350 billion in 2011 according to the US International Trade Council, making broadband-based exports America's third-largest category of exports after industrial supplies and capital goods. Indeed, Europe is the top location for America's digital exports, and there is concern that the lack of broadband investment in the EU could inhibit the growth for some digital exports to Europe in the future.

It seems that America's greatest success stories and innovations come from things that regulators had nothing to do with. Who knew that coaxial cables laid in 1948 could become a foundation for broadband? Or that copper wires could be recalibrated to conduct data at speeds of 100 Mbps? Did Motorola have a vision in the 1970s that its $10,000, two-pound mobile phone would be miniaturized and mass-produced to be in the hands on nearly every human being on earth? What of the patents for fiber optics that came from a 150 year old glass and ceramic company? Is the fact that the US has the highest concentration of LTE devices and networks the result of enlightened regulatory policy, or rather an accident of history that the US happens to be a large single market where mobile providers have scale? America seems to succeed not because of regulation, but *in spite* of it.

To that end, I implore you to minimize the regulatory footprint. The Communications Act need not be longer than one page. Retire the obsolete classifications for communications networks. Make a level playing field for services. Favor no technology. Rely as much as possible on evidenced-based, ex post competition law and not "enlightened" regulatory foresight to address issues of consumer protection and abuse of power. A fully empowered and resourced Federal Trade Commission (FTC) can enforce competition and consumer protection if and when abuse occurs.

I commend you for this bi-partisan effort and wish you endurance and steadfast resolve in the years ahead.

Sincerely,



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Please note that this letter is a reflection of my views and not necessarily that of Aalborg University or its affiliates.

MODERNIZING THE COMMUNICATIONS ACT

QUESTIONS FOR STAKEHOLDER COMMENT

RESPONSES OF THE AMERICAN CABLE ASSOCIATION
January 31, 2014

Introduction

The American Cable Association (ACA) represents approximately 850 small and medium-sized independent cable operators. Most ACA members operate in rural and hard-to-serve markets, while others have challenged incumbents in urban markets. Over the past 20 years, ACA's members have evolved from providing only cable television services to offering a bundle of cable, voice telephony, and broadband Internet access services to residential customers over a single network. Many of these operators also have begun to serve business customers with voice and broadband services (both Best Efforts and Dedicated). About 40% of ACA's members are incumbent local telephone companies that have added video.

In the provision of multichannel video services, ACA members face numerous competitors. All ACA members compete against two direct broadcast satellite providers; some compete against a non-cable multichannel video programming distributor (MVPD); and, some compete head-to-head against a large incumbent cable operator, several of which are vertically integrated or affiliated with cable programmers. ACA members also compete with distributors offering video services over the Internet. With regard to voice services, traditional cable operators compete with incumbent local telephone companies, and all ACA members compete against "over-the-top" VoIP providers and multiple commercial mobile wireless carriers. In the broadband Internet access service market, ACA members compete with other wireline providers, as well as mobile and fixed wireless carriers and satellite broadband providers.

ACA members are subject to a great many provisions in the Communications Act of 1934, as amended (Act), and regulations adopted pursuant thereto by the Federal Communications Commission (Commission). As providers of cable services, they are subject to the provisions of Title VI, which combines federal oversight and state/local franchising and other requirements. Depending on how they offer voice telephony, they may be subject to Title II common carrier regulation or other requirements for VoIP adopted pursuant to the Commission's Title I ancillary authority. Finally, the Commission, at least currently, is able to exercise its section 706 authority to oversee aspects of their provision of broadband Internet access service. They also are subject to regulation under the Copyright Act, whose provisions have become intertwined with provisions in the Act.

In sum, as smaller businesses, ACA members have unique insights into the communications marketplace, particularly from the perspective of smaller players in industries dominated by economies of scope and scale which they lack; into the effect of existing rules and regulations on their operations; and the need for targeted regulatory intervention to address concerns where other entities exercise excessive market power or leverage.

We look forward to working with the Committee as it proceeds with this effort.

Responses to Questions

1. Question: The current Communications Act is structured around particular services. Does this structure work for the modern communications sector? If not, around what structures or principles should the titles of the Communications Act revolve?

ACA believes the Act should be aimed at developing and sustaining a fully competitive marketplace and achieving other public interest goals. Where markets are fully competitive, economic regulation is not required, and ACA members should be able to operate unfettered to maximize the value of their networks and services for their communities. However, too often markets are not robustly competitive. In addition, it may be important to achieve larger, societal objectives through regulation. Accordingly, for those instances where regulatory intervention may be necessary, ACA believes the following should serve as fundamental principles —

1. Regulatory intervention is warranted when –
   i. There is an exercise of substantial market power or unfair or deceptive acts or practices;
   ii. Competition or consumers are harmed in a manner contrary to the "public interest;"
   iii. Smaller or more rural providers are disproportionately disadvantaged compared to other industry participants; and
   iv. There are specific social objectives to achieve that markets will not deliver, such as ensuring vital communications services remain viable during emergencies and related events and available to all consumers, including those with special needs.

2. Any regulatory intervention should be applied in a competitively and technologically neutral manner.

3. Any regulatory intervention should be precisely targeted to avoid imposing excessive costs and exemptions and special considerations should be afforded to smaller and rural providers where appropriate.

In response to the Committee's inquiry about whether the Act should continue to be structured around services, economic regulation should reflect relevant product and geographic markets, and to a great extent the Act's service specific regulation, *e.g.* voice, video, and Internet access, achieves that aim. However, as services evolve and new services emerge, market structures can change. Thus, while there is an economic rationale to regulate based on specific services and practical reasons to organize the Act in this way, the Commission should be granted limited authority to adjust regulations to ensure they reflect appropriate market structures in the communications industry so regulations are and remain competitively and technologically neutral as the manner of delivery of specific services evolves. Further, it is important for Congress to review and update statutory provisions regularly (and the Commission to do the same for its rules and regulations) to ensure that they remain appropriate for the communications sector.

2. Question: What should a modern Communications Act look like? Which provisions should be retained from the existing Act, which provisions need to be adapted for today's communications environment, and which should be eliminated?

In accordance with ACA's principles for when regulatory intervention is appropriate, the following are examples of provisions that need to be eliminated, adapted, or retained.

ACA members as cable operators face regulatory obligations enacted to address marketplace problems that no longer exist. For example, many provisions found in Title VI of the Act stem from an out-of-date 1992 Cable Act. When enacted, these provisions addressed the specific concern of Congress that larger cable multiple system operators had sufficient market power that could be exercised downstream to increase consumer rates and upstream against content providers. However, that is no longer the case; the market has evolved significantly over the past two decades. Today, consumers have their choice of multiple MVPDs, and content providers have numerous distribution channels, including the Internet, to reach consumers. Accordingly, for example, the provisions related to navigation devices, basic cable rates, the composition of the basic tier of service, customer service standards, and the need to obtain determinations of "effective competition" on a locality-by-locality basis are clearly out of date and should be modified or eliminated.

At the same time, there are gaps in Title VI that permit other entities – *e.g*. television broadcasters through retransmission consent, and regional and national programming networks, particularly those carrying sporting events – to exercise market power over small cable operators, resulting in disproportionate harm to them as competitors in the market and in their ability to invest and innovate, which in turn limits their ability to provide consumers with services at reasonable rates. Congress should address these problems promptly, whether as part of the reauthorization of the Satellite Television Extension and Localism Act or through other legislation this year, and not wait for any update to the Act next year or beyond.

Further, other Titles of the Communications Act need to be updated. As an example, the pole attachments provision should be extended to poles owned by cooperatives and government-owned entities to facilitate access on just and reasonable rates, terms and conditions. The Act should also ensure that providers can rapidly access both public and private rights-of-way at reasonable rates. These changes would provide additional incentives for investment and network deployment. Finally, the Committee may wish to consider clarification of the scope of the Commission's so-called "ancillary authority" to ensure that it is exercised consistent with Congressional policies and objectives.

3. Question: Are the structure and jurisdiction of the FCC in need of change? How should they be tailored to address systemic change in communications?

ACA cautions against the imposition of wholesale change in the structure and/or jurisdiction of the Commission. Any dramatic shifts in structure and jurisdiction may well create substantial and prolonged uncertainty as Commission staff, service providers, consumers and other interests work through the meaning and extent of the changes. At the same time, there are various refinements that should be considered.

First, in updating the Act, the Committee should recognize that the communications industry has become more national in scope; yet the Act continues to permit multiple levels of government to engage in regulation. This creates unnecessary burdens on service providers. Thus, any update of the Act should re-balance the allocation of regulatory authority among different levels of government to minimize these burdens.

Second, the Committee should consider providing the Commission with additional direct authority over video programming owners as it has for specific purposes under the ADA and CVAA. Too often, the Commission has found it necessary to achieve statutory goals indirectly by imposing regulations on cable operators rather than on the entities that are responsible at the first instance for the content of the programming or setting the relative loudness of commercial inserts, *e.g.*, KidVid and the CALM Act. This has imposed an unwarranted and often undue burden on cable operators to act as go-betweens, particularly on smaller operators that lack leverage in the market to regulate programmer behavior themselves.

4. Question: As noted, the rapidly evolving nature of technology can make it difficult to legislate and regulate communications services. How do we create a set of laws flexible enough to have staying power? How can the laws be more technology-neutral?

Since the communications market is so dynamic, any regulatory intervention should be both limited to account for potential market changes and responsive so that problems can be addressed before they become worse. This means that Congress should review the Act periodically and the Commission should review its regulations periodically. Moreover, the Commission should have authority to forbear from applying any provision upon an appropriate demonstration that the particular rule is no longer necessary in the public interest.

5. Question: Does the distinction between information and telecommunications services continue to serve a purpose? If not, how should the two be rationalized?

The distinction between information services and telecommunications services has been a critical and constantly evolving concern in communications policymaking for more than 50 years. It has been driven by key principles about when regulatory intervention is appropriate, including the precept that the government should not regulate where markets are workably competitive, and that the reach of the Act is limited to the electronic communications industry.

ACA strongly believes that the Commission has properly exercised its authority in classifying local broadband Internet access services as information services while leaving it up to providers to determine whether to offer such services on a common carrier basis. Imposing common carrier mandates on the provision of these services by small cable operators would be administratively difficult, have potentially far-reaching spillover effects, and will certainly deter investment and broadband deployment. Rather, the government should focus on ensuring that these providers cannot be leveraged by upstream content providers, as they are today.

ACEEE
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January 31, 2014

Chairman Fred Upton
Representative Greg Walden
Energy and Commerce Committee
Subcommittee on Communications and Technology

Subject: Modernization of Communications Act

Dear Chairman Upton and Congressman Walden:

The American Council for an Energy-Efficient Economy (ACEEE) appreciates the opportunity to provide input into the Committee's consideration of revisions to the *Telecommunications Reform Act of 1996*. ACEEE is a research organization founded in 1980 that focuses on technologies, programs, and policies that improve energy efficiency in the United States.

Over the past six years, ACEEE has pursued research into what we have come to refer to as "intelligent efficiency," which is a systems-based approach to efficiency enabled by information and communication technology (ICT) and user access to real-time information. Intelligent efficiency differs from the component energy efficiency we are familiar with in light bulbs and refrigerators in that it is adaptive, anticipatory, and networked. If the United States were to take advantage of currently available information and communications technologies that enable system efficiencies, we could reduce energy use by about 12–22% and realize tens or hundreds of billions of dollars in energy savings and productivity gains. In addition, there are technologies that are just beginning to be implemented that promise even greater savings.

ACEEE's analysis suggests that going forward, intelligent efficiency will be critical to improving the energy efficiency of the United States' and the world's economies, but intelligent efficiency depends on innovation and a robust, high-speed communications infrastructure. Therefore, ACEEE is interested in a modernized Communications Act that will ensure innovation and investment continues to flow into the Internet ecosystem, which includes wireless and wireline networks, platforms like data centers for cloud computing, big data analytics, apps development and other capabilities that continue to evolve rapidly.

We encourage the Committee to ensure that a regulatory framework is in place that provides access to information and communications technologies throughout our country, and allows the technologies to continue to evolve, thus enabling the potential for greater energy efficiency.

Sincerely,

R. Neal Elliott, Ph.D., P.E.
Associate Director for Research

January 30, 2014

To: The House Committee on Energy and Commerce

From: Steve Pociask, President, ACI

In response to the House Committee's questions on "Modernizing the Communications Act," the following are my comments. I am president of the American Consumer Institute Center for Citizen Research (ACI), a nonprofit (501c3) educational and research organization with the mission to identify, analyze and protect the interests of consumers in selected policy and rulemaking proceedings in information technology, healthcare, retail, insurance, energy and other matters. While I am a member of the FCC's Consumer Advisory Committee (CAC), serve on its Broadband and Healthcare Working Groups, and co-chair its IP-Transition Working Group, the following comments are solely my own and do not necessarily represent the views of the CAC or its members.

I will begin by providing some discussion as context for my recommendations. In general, I find that the communications sector, for the most part, is effectively competitive; there is no market failure to justify the current level of regulation, particularly for IP-based services; and unnecessary regulations can be costly to providers and, most importantly, consumers. With these points in mind, this document will provide empirical evidence to support my findings, which will be the basis of my answers to your questions. While I offer these comments in writing, I am available to discuss my findings in person, by phone or by direct testimony before the House Committee.

Market Competition

The explosion of competition and innovation has left little to regulate in the outmoded world of copper telephony. The number of telephone lines in service has decreased by 5% to 10% percent each year for more than a dozen years, and today's call volume and "minutes of use" are well below half their historical peak. There are more than twice the number of broadband lines and more than three times as many wireless subscribers than traditional telephone company lines. Indeed, consumers with broadband services are bypassing the old network with Internet-based voiced services, including free calling services by Google Voice and Microsoft's Skype, as well as IP-based telephony providers, like Vonage. Cable TV providers are facing competition from satellite, telecommunication providers, over-the-top providers, over-the-air broadcasters and others. Most of these providers are capable of transmitting voice, data and video to consumers.

As the telecommunications sector has moved from analog and circuit switch copper-based technologies to digital IP-based fiber technologies there is little reason for holding onto old regulatory rules. Over the last couple of decades, wireless and Internet services were largely unregulated and, by no coincidence, proved to be among the fastest growing services in the information technology sector.

Specifically, the Internet has seen explosive growth since its commercialization in the mid-1990s. Comparing then to now, the facts show that the Internet speeds have increased by more than 100-fold, as services went from dialup to broadband speeds. Excluding satellite and mobile services, fixed broadband services are now available to households in nearly every census tract in the U.S. and at half the price. The feat was the

result of investments and a "hands off" regulatory approach favored by then-FCC Chairman Kennard.[1]

Like broadband services, wireless consumers also have benefited from this "hands off" approach. Since 1996, the number of wireless subscribers grew eight-fold, and today, after adjusting for inflation, a wireless minute costs less than one-tenth of its 1996 price. Compared to its European counterparts, the US wireless market leads the world in usage and speed, has more competitors and devices for sale, and offers the lowest usage prices. Most Americans use their wireless phone as their predominant telecom service.

Today, there are 300 million wireless broadband subscribers in the U.S.[2] and wireless data usage will likely top 2 trillion megabytes by the end of this year. Consumers can browse the Internet, watch videos, use apps like free navigation, make phone calls and send messages with a handheld device. All of these consumer benefits were achieved without the help of onerous regulations.

The question policymakers need to ask is whether the era of regulation is warranted in what appears to be a vibrant, innovative and competitive market?

No Rationalization for Onerous Regulations

Market failure can be a justification for government intervention. For communications services, regulation was a historical development stemming from monopoly services. Later in the 1990s, regulations were used to transition the industry from monopoly to competition. Today, the reasons for regulation have disappeared.

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[1] Some of the figures in this paragraph and in the paragraph to follow are cited in -- Steve Pociask, "Mission Creep: When Regulators Won't Deregulate," *The Daily Caller*, October 23, 2012, http://dailycaller.com/2012/10/23/mission-creep-when-regulators-wont-deregulate/.

[2] See http://www.ctia.org/resource-library/facts-and-infographics/archive/broadband-subscriptions-US-highest.

Today, there is no evidence of market failure. Broadband subscription and investment are increasing, prices are decreasing and quality of service is improving – characteristics not indicative of a market power or anticompetitive risks. However, regulators continue to focus on market structure, not performance and conduct. Yet, the Commission's economists are, of course, aware of the conclusions of numerous industrial organization experts and studies holding that market structure alone is an unreliable indicator of the efficacy of competition, and that competent analysis requires looking instead at the record of market conduct and of actual market performance, both of which address matters of interest to consumers – prices, progress, innovation, investment, service diversity, functionality, and adaptations to each of these over time.[3]

The fact is that the broadband market is competitive and becoming more so. Industry investment is strong and consumers have increased choice. As the broadband

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[3] For a clear and detailed discussion of the well-known "structure, conduct, performance" (SCP) frame of reference for assessing market competition among firms, see Donald A. Hay and Derek J. Morris, *Industrial Economics and Organization: Theory and Evidence*, Oxford University Press, especially Chapter 8, pp. 204-261. They conclude that the complexities involved undermines "…the direct causal chain from structure to performance…" And that from a policy perspective, "…emphasis would switch from structure to conduct as a basis for [regulatory] intervention." (p. 260) Also, "...the relationship between industrial structure and price setting over times remains very unclear…it is difficult to avoid concluding that, if any such links do exist, they are far from obvious and unlikely to be powerful…Industrial structure may have an important influence on price procedures….but it does not seem to play a central role in the pattern of price changes that develops through time." (p. 200)

The author of a widely used industrial organization text concluded: "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…." F. M. Scherer, *Industrial Market Structure and Economic Performance*, Rand McNally, Chicago, Ill., 1970, p. 131.

An exhaustive survey of the literature on oligopoly market structure began with the following: "Before embarking on the analysis, it is best to provide the reader with a word of warning…there is no single theory of oligopoly… I do not expect oligopoly theory... to give tight interindustry predictions regarding the extent of competition or collusion." Carl Shapiro, "Theories of Oligopoly Behavior," *Handbook of Industrial Organization*, R. Schmalansee and R. Willig (eds) p. 333.

market continues to expand in terms of output and penetration, and prices are declining.[4] To date, the Bureau of Labor Statistics' Consumer Price Index for Internet Services and Electronic Information Providers indicates that prices have fallen by half in real terms since 1998.[5] Meanwhile, broadband speeds have increased. These statistics again suggest no market failure to justify regulations.

Based on SEC filings covering the latest three years of operations, the top 10 network service companies have invested over $165 billion. In addition, a study by Darby, Fuhr and Pociask found that network communications companies reinvested 64% of cash flow from operations, compared to 28% for edge companies.[6] The study also found that network companies earned 14% of their cash flow as profits, while edge companies earn 49%.[7] In other words, the broadening and deepening capital formation underway is occurring without extraordinary profits. Historically, the profits by Internet Service Providers have been generally below the average experienced by the S&P 500.[8] In other words, there is no evidence of market failure.

Despite this market performance, the commission's authority and rules remain in place, thereby threatening deployment of innovative and competitive advanced IP-based services with the same 1930s-era common carrier rules. In its rulemakings, the commission fails to apply cost/benefit analyses to justify its new and past regulations, it

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[4] A number of sources report significant price decreases, such as prices falling from $80 to $15 per month. See Jerry Ellig, "Public Interest Comment on Broadband Connectivity Competition Policy," Mercatus Center, Project No. V070000, George Mason University, February 28, 2007; "Wireline Broadband Pricing 2001-2007," United States Telecom Association, Washington, DC, June 2008, available online at http://www.ustelecom.org/uploadedFiles/Learn/Broadband.Pricing.Document.pdf; and J. Gregory Sidak, "A Consumer Welfare Approach to Network Neutrality Regulations of the Internet," forthcoming in the *Journal of Competition Law & Economics*, Oxford Press, Vol. 2:3, 2006, p. 400.

[5] BLS CPI-U indexes available at www.bls.gov.

[6] Larry F. Darby, Joseph P. Fuhr and Stephen B. Pociask, "The Internet Ecosystem: Employment Impacts of National Broadband Policy," The American Consumer Institute Center for Citizen Research, Washington, DC, January 28, 2010, p. 24, Chart 4.

[7] Ibid.

[8] Ibid, p. 9, Table 1. Also see "Facts about Market Power and Profits in the Internet Space," ConsumerGram, The American Consumer Institute Center for Citizen Research, October 8, 2009.

often takes positions that protect competitors rather than competition, and it fails to measure the social welfare effects of its decisions. While evoking the public interest, there is no evidence that society is better off with these regulations, particularly in light of increased intermodal rivalry.

If improving economic welfare is a goal of the Commission, and it should be, then a discussion and collection of comments on regulatory remedies should come after identification of market failures. To date, we find no empirical evidence entered into the public record that demonstrates the presence of market failure. However, substantial evidence has been provided that demonstrates that proposed Internet regulations would impede network investment, increase consumer prices and reduce consumer welfare.[9] The Commission should insist on empirical evidence of market failures before suggesting remedies to address problems that may not exist. Congress needs to guide the Commission on this point.

Regulation is Not Free

There are significant costs associated with communications regulations.[10] The deliberations on the IP transition should bring pause -- that bringing faster, better and cheaper communications services to consumers requires regulatory approval and exercise. The slow pace for spurring the transition is not a market failure, but a government failure.

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[9] For example see the essays in *The Consequences of Net Neutrality Regulations on Broadband Investment and Consumer Welfare: A Collection of Essays*, The American Consumer Institute Center for Citizen Research, November 19, 2009. See http://www.theamericanconsumer.org/2009/11/19/aci-releases-a-book-holds-a-capitol-hill-event-the-evidence-on-net-neutrality/.

[10] For example, see Jerry Ellig, Costs and Consequences of Federal Telecommunications and Broadband Regulations, Mercatus Center, George Mason University, February, 2005 (and references cited there); and Jerry A. Hausman, Ariel Pakes and Gregory L. Rosston, "Valuing the Effect of Regulation on New Services in Telecommunications," *Brookings Papers on Economic Activity, Microeconomics*, Vol. 1997, 1997, pp. 1-54, The Brookings Institution, http://www.jstor.org/stable/2534754.

There are also archaic broadcasting rules that need elimination. As one example, retransmission consent regulations are allowing broadcasters to reap 46% annual increases in fees, which will lead to $20 billion consumer welfare loss for cable TV customers in the next 5 years and encourage broadcasters to not relinquish underutilized spectrum in the upcoming reverse auction.[11] Failure to repurpose 120 MHz of spectrum in the reverse auction would conservatively reduce consumer welfare by one-half of a trillion dollars for this one auction alone.[12] Thus, regulations are inhibiting spectrum from reaching its highest and best use, as Congress intended. Along with ending retransmission consent rules, congress should eliminate the nesting of broadcasting regulations, including must carry, channel position, compulsory copyright, sweeps no-drop, syndicated exclusivity, network non-duplication rule, and the TV sports blackout. The industry should negotiate freely without relying on regulations to provide additional bargaining leverage.

Given the flux of technology and uncertainties in the current marketplace, regulation of rates and services of access providers, or others, will be associated with unforeseen and unintended outcomes which invariably will be costly. Rate regulation is sure to affect output, introduce delay, increase uncertainty, add to investment risk and thereby reduce both the rate and likely amount of capital formation on which new services and consumer welfare depend. Given the ambiguities and complexities of measuring cost in a dynamic Internet services environment, as well as the lags and imperfections in measuring costs, cost-based regulation may be the source for substantial dynamic inefficiency and waste.

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[11] Steve Pociask, "Consumer Welfare on Hold: The Unintended Consequences from Retransmission Consent Regulations on Spectrum Auctions," The American Consumer Institute Center for Citizen Research, Dec. 4, 2013, http://www.theamericanconsumer.org/wp-content/uploads/2014/01/Retrans-Consent-Final.pdf.
[12] Ibid.

Rapid Innovation vs. Regulatory Oversight

Compared to the technical change and speed of innovation found in the private sector, government does less well. As a byproduct of the requirements of good administrative procedures, regulatory processes tend to be slow; conflict resolution is done incrementally; outcomes are often inconclusive and lead to further deliberations; transactions costs are often substantial; and grounds for decision-making are not always known or consistent. The Commission's budget has increased much faster than the rate of inflation, despite the regulatory tone of the Telecommunications Act of 1996.[13] There is no evidence that consumers or taxpayers have benefited from this mission creep.

The result of this calcified regulatory process is that it creates substantial uncertainty in the private sector about matters critical to private investment and other elements of market behavior, which could have detrimental effects on innovation and consumer welfare.

Prescriptive Regulations Can Be Costly to Consumers

The cost of *ex ante* regulations, such as proposed net neutrality regulations and those that anticipate market problems rather than seek to remedy problems, can be very costly to society and should be avoided.[14] By a consumer welfare analysis, these prospects must be evaluated by the Commission and given considerations as offsets to the benefits promised.

The Commission should conduct a welfare analyses before imposing any market remedies in the form of new Internet regulations. Any regulations should monitor industry conduct and performance – not regulating based on market structure – and it should refrain from the imposition of *ex ante*-based regulations.

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[13] Steve Pociask, "Mission Creep: When Regulators Won't Deregulate," *The Daily Caller*, October 23, 2012, http://dailycaller.com/2012/10/23/mission-creep-when-regulators-wont-deregulate/.

[14] Larry F. Darby, "*Ex Post* v. *Ex Ante* Regulatory Remedies Must Consider Consumer Benefits and Costs," The American Consumer Institute, May 14, 2008.

Deregulation Most Often Benefits Consumers in Competitive Markets

With the historically justification for regulation no longer relevant to today's competitive and converging information transport markets, a new regulatory paradigm is needed. That paradigm should subject all-IP providers to "light regulation" in markets with more than one competitor, monitor conduct in these markets, and impose regulatory remedies on an *ex post* basis only, if they can be quantified to benefit social welfare on a cost/benefit basis.

We see a convergence of competitors offering voice, data and video services – what I have described as intermodal competition. However, an earlier example of intermodal competition provides lessons for legislating and regulating for the future. To see this, we need to look back at the deregulation of the transportation sector some forty years ago, when regulation created such gross inefficiencies that it ultimately harmed consumers. In most cases, regulatory reforms required legislation, since regulators were not willing to give up the helm. Today, the reforms of the late 1970s and early 1980s continue to benefit consumers by nearly one billion dollars each year in consumer welfare benefits. Looking at these examples will provide lessons for creating a flexible and lasting legislation that governs converging markets, encourages technology evolution and spurs consumer benefits.

1. Railroads

During the 1970s, the U.S. railroad industry teetered on the brink of bankruptcy, in large part due to regulations that gave trucking a competitive advantage over railroads. The railroad industry was heavily regulated and included collective ratemaking and prohibitions on the abandonment of unprofitable routes. Eventually legislation was passed to deregulate railroads and encourage competition. The balkanization and concentration of the industry made deregulation a risk for the public, who feared so called *captive shipper*s would pass on higher transportation costs to consumers in the form of higher prices.

However, deregulation did the exact opposite. Railroads finally had the ability to price efficiently, target profitable markets and reduce costs. Roughly one-third of unprofitable track was abandoned, and, as of 1998, costs per ton-mile fell by 60% from the time when deregulation began.[15] Industry multi-factor productivity increased sharply in the years following deregulation.[16] Compared to the ten years prior to deregulation, when the industry averaged 1-3% return on equity, in the ten years that followed deregulation the industry averaged nearly 11% return.[17] Through industry consolidation, balkanized carriers became end-to-end carriers.[18] In short, the industry turned itself around – reduced costs and increased profits.

As to the risks of modernizing regulations, proponents of regulation had warned that deregulation of a concentrated industry would lead to higher prices for shippers and consumers. However, intermodal competition – competition between trucking, airlines and ships – provided enough rivalry for efficiencies to lead to significantly lower prices. For instance, one study found that shippers received about $12 billion of annual benefits from lower prices and improved services.[19] Another study estimated the consumer benefits from lower prices to be $9.1 billion.[20] From the period 1982 to 1989, the average annual rates for shipping commodities by rail fell 4.6%, led by a 6.7% decline for farm products, a 6.9% decline for food products and a 6.2% decline for wood and lumber,

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[15] Curtis Grimm and Clifford Winston, "Competition in the Deregulated Railroad Industry: Sources, Effects, and Policy Issues," in *Deregulation of Network Industries: What's Next*, Sam Peltzman and Clifford Winston, ed., AEI-Brookings Joint Center for Regulatory Studies, Washington, DC, 2000, p.43.

[16] *Deregulation and Consolidation of the Information Transport Sector: A Quantification of Economic Benefits to Consumers,* Joel Popkin and Company, Sept. 29, 1999, p. 58. The chart compares industry productivity before and after deregulation, and shows the industry has experienced a marked increase in productivity since deregulation.

[17] One estimate of profitability for the period 1962-1978 was 2.4%. See Robert G. Harris and Theodore E. Keeler, "Determinants of Railroad Profitability: An Econometric Study," *Economic Regulation: Essays in Honor of James R. Nelson*, 1981, p. 37.

[18] Richard C. Levin and Daniel H. Weinberg, "Alternatives for Restructuring the Railroads: End-to-End or Parallel Mergers?" *Economic Inquiry*, July 1979, p. 372.

[19] Clifford Winston, et. al., *The Economic Effects of Surface Freight Deregulation*, Brookings, 1990.

[20] Robert Crandall and Jerry Ellig, "Economic Deregulation and Customer Choice: Lessons for the Electric Industry," Mercatus Center, George Mason University, 1997, executive summary.

as well as lower prices for many other commodity categories.[21] One can only wonder what would have happened to the railroads and infrastructure, if railroad operators had failed under regulation; or what the consequences on consumers would have been, if the federal government needed to bailout these failing operators.

2. Airlines

Regulations restricted market entry, segmented the industry into regional, national and international carriers, and routinely required cross-subsidized services between short and long haul routes. Regulations determined what markets each airlines could serve. Prices were not set rationally, but designed to help some travelers and some markets at the expense of others. Prices for interstate flights were set by the Civil Aeronautics Board (CAB), which led carriers to compete on service, not price. This regulation led to flights with many empty seats and higher service costs. Some unregulated airlines operated wholly within state markets, and could profitably set prices that were less than half of regulated carriers.[22] Prior to the overhaul of regulations, most Americans had never flown, because they could not afford to pay the higher regulated prices.

With deregulation in 1978, airlines quickly moved to hub and spoke operations that permitted significant cost savings, targeted cities with more passenger demand and reforms allowed carriers to set prices. Many regional carriers became nationwide carriers, providing end-to-end services. Passenger complaints declined as well,[23] and airline safety has increased. The CAB was eliminated.

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[21] Grimm and Winston, 2000, p. 45. They show that shipped commodity prices have continued to decline (averaging 4.1% per year from 1990 to 1996), highlighting the ongoing (and not onetime) benefits of deregulation.

[22] See W. A. Jordan, *Airline Regulation in America*, Brookings Institute, Washington, DC, 1974; and M. Levine, "Is Regulation Necessary? California Air Transportation and National Regulatory Policies," *Yale Law Journal*, Vol. 74, July 1965, pp. 1416-47.

[23] Steven Morrison and Clifford Winston, "Regulatory Reform of U.S. Intercity Transportation," in *Essays in Transportation Economics and Policy*, Jose Gomez-Ibanez, William Tye and Clifford Winston (ed.), Brookings, Washington, DC, 1999, p. 20.

As a result of regulatory reform, average airline fares declined significantly relative to regulated fares. By one estimate, as of 1994, fares were running about 27% below regulated fares.[24] After correcting for quality differences, the average annual consumer welfare was estimated to exceed $20 billion.[25] Crandall and Ellig report the annual consumer savings from deregulation to be $19.4 billion.[26]

3. Trucking

Before deregulation in 1980, the Interstate Commerce Commission not only controlled market entry, but it regulated what could be hauled, where it could be hauled to and the route over which it could be hauled. Rules were set up to make competition "fair" – often requiring trucks to return with empty loads or less-than-full truckloads, so that other competitors would not be disadvantaged.

However, when regulatory reforms occurred, hub and spoke operations were commonplace for less-than-full truckloads. That, and other efficiencies, drove down prices between 28-56%, and consumer benefits reached about $19.6 billion per year.[27] Similar to the airlines and railroad industry, reforms led to significant consumer benefits in the form of lower prices for shipped commodities. The Interstate Commerce Commission was eventually dissolved.

4. Other Examples of Reforms

While the deregulation of transportation provides a good example of inter-industry rivalry, there were other regulatory reforms that led to consumer welfare gains. Before 1975, brokerage fees were fixed, effectively preventing price competition among brokerage houses. Deregulation of the brokerage industry has led to significant increases

[24] Steven Morrison and Clifford Winston, p. 1.
[25] Morrison and Winston, 1999, p. 2.
[26] Crandall and Ellig, 1997, executive summary.
[27] Ibid.

in productivity and falling brokerage fees for consumers.[28] In just a few years, deregulation of the industry resulted in an average decline in brokerage fees of 25%; and, for large orders, a decline in brokerage fees of 50%.[29] With the advent of the Internet, online brokerage fees have declined even further.

In another example, price regulation of the natural gas extraction industry began in 1968, and for the next 17 years, regulation cost the economy $9.5 billion per year.[30] Partial deregulation has resulted in a 30% decline in consumer prices, and a net increase in consumer benefits.[31]

Some regulatory reforms have taken place in the telecommunications sector. Until recent decades, rules imposed barriers to entry that limited competition, required extensive subsidies between telephone services, and stifled innovation. When the AT&T consent decree was signed in 1982, breaking up Ma Bell, average long distance revenue was 61 cents per minute (in 2001 dollars). When barriers were removed, hundreds of long distance competitors entered the market and, as of 2001, prices fell to 10 cents per minute.[32] Today, long distance services are just a few pennies per minute or at no charge.

These examples illustrate the consumer welfare benefits that could result from reforming communications regulation. But, there are examples where the FCC policies have harmed consumer welfare. For example, regulations delayed the

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[28] Elizabeth E. Bailey, "Price and Productivity Change Following Deregulation: The U.S. Experience," *The Economic Journal*, March 1986, pp. 4-5.
[29] Gregg A. Jarrell, "Change at the Exchange: The Causes and Effects of Deregulation," *Journal of Law and Economics*, volume 27:2, October 1984, pp. 273-312. Also see, Kenneth W. Costello and Robert J. Graniere, "Deregulation-Restructuring: Evidence for Individual Industries," The National Regulatory Research Institute, Columbus, OH, May 1997.
[30] Paul W. MacAvoy, *The Natural Gas Market: Sixty Years of Regulation and Deregulation,* Yale University Press, New Haven 2000.
[31] Ibid.
[32] "Statistics on the Long Distance Telecommunications Industry," Industry Analysis & Technology Division, Wireline Competition Bureau, FCC, May 2003.

introduction of wireless services to the market, a delay costing consumers $25 billion per year (in 1983 dollars).[33] Similarly, regulatory delays in voice messaging services cost consumers $1.3 billion per year (in 1994 dollars).[34] Numerous studies have shown that barriers to entry and the failure of regulators to allow for competition in the cable TV market had cost consumers between $9 billion and $23 billion per year.[35] Most states have now ended local regulation of cable TV services, thereby permitting open competition, which has resulted in lower consumer prices.

The FCC blocked the initial rollout of DSL and, after being sued and losing in the Supreme Court, it changed its dial tone regulations that, at the time, effectively shut out telecommunications providers from a sustainable market entry. While there are many other examples, these few show that regulations can be costly to consumers, can create barriers to entry and, once in place, are slow to change.

In summary, when it comes to a competitive market, regulatory reform can be better for consumers than a framework that controls prices, entry, output, service rollout and quality of service. We suggest that these lessons be applied to a new framework for the Communications Act.

Recommendations: The Committee's Questions

Based on the information provided in this document, it is crucial that Congress write a flexible and enduring law by limiting the extent of regulations on IP services. The imposition of common carrier-like regulations on IP services will certainly reduce consumer welfare, discourage investment and job creation, and jeopardize other national

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[33] Jeffrey Rohlfs, Charles L. Jackson and Tracey E. Kelly, "Estimate of the Loss to the United States Caused by the FCC's Delay in Licensing Cellular Telecommunications," *NERA Discussion Paper*, Washington, DC, Nov. 1991.

[34] Jerry Hausman and Timothy Tardiff, "Valuation and Regulation of New Services in Telecommunications," *MIT Discussion Paper*, June 1996.

[35] "Overwhelming Evidence – Cable Competition Benefits Consumers," *ConsumerGram*, The American Consumer Institute, Reston, VA, 2006; and "Does Cable Competition Really Work?" The American Consumer Institute, March 2, 2006.

broadband goals. The absence of market failure means that the cost of regulation may far outweigh any conceivable benefit.

With this in mind, the House Committee has asked five questions dealing with the structure of the current Communications Act; what provisions need to be retained, eliminated or adapted; how the FCC's jurisdiction and role should change; how to create flexibility and staying power to the legislation; and how to deal with the distinction between information services and telecommunications. The following addresses these questions.

As discussed earlier, the current regulatory framework was principally written to deal with monopoly-era issues that have no place in today's dynamic digital age. Applying obsolete laws to modern networks would restrict investment, and it would slow entrepreneurs' ability to invent new products for the future. Decisions to invest and launch new services cannot wait 10 or 15 years for regulatory dockets to close, as it sometimes does today. Regulatory forbearance is necessary to encourage investment and innovation, which will lead to increased consumer welfare, economic output, jobs and productivity, as was explained earlier.

Intermodal competition has blurred the lines of traditional services into service bundles and differentiated service platforms served by different technologies, making them difficult to categorize as a unique. Because IP-based services are a bundle of services, a better framework would be to create a broad definition for all-IP services and have this new class of services subject to regulatory forbearance. This would be ideal for spurring consumer welfare, enhancing investment and innovation, and encouraging a transition away from legacy systems and services.

If this becomes the case, then the regulatory framework could be simplified. For example, as local services become all-distance services, then regulatory oversight can

transfer from 50 state jurisdictions to a single federal jurisdiction. When this occurs, the functions of the FCC can be modified, dropping unnecessary regulations, retaining some oversight, and transferring some functions to other agencies, such as complaints in trade, mergers/acquisitions and antitrust matters.

In terms of what needs to be added, the focus would be a deregulatory framework for all-IP platforms and services. That framework would logically provide a level playing field for service providers, because it would avoid the typical rent-seeking and regulatory gaming that sometimes plagues the FCC and state commissions.[36]

This framework will also provide innovators and entrepreneurs the ability to find new and exciting ways to partner, as well as develop advanced services and applications to better serve consumers with greater choice and options. Regulatory forbearance should be the rule for all IP-based broadband in competitive markets, whether provided by satellite, other wireless, or wireline providers.

With regulatory forbearance on all-IP networks and platforms, many old legacy rules that affect common carriers can eventually be eliminated. The old rules stymie competition, and create costly barriers that make absolutely no sense given today's technology. For instance, the distinction between local, intraLATA, InterLATA or Interstate means nothing in an all-distance world. These LATA designations were arbitrary distinctions made solely for the purpose of divesting AT&T from its principle telephone subsidiaries over thirty years ago.

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[36] There are many examples of where the FCC has moved to help competitors instead of protecting competition, such as the FCC ordering some carriers help other carriers with data roaming (http://www.theamericanconsumer.org/2011/04/on-roaming-charges-and-other-corporate-subsidies-%e2%80%93-the-fcc-is-open-for-business/), or considering price regulation on largely obsolete business data service (http://www.theamericanconsumer.org/2012/11/fcc-ponders-price-regulation-of-obsolete-data-services/, or ignoring the many empirical studies finding that net neutrality regulations would reduce consumer welfare, or state commissions setting prices for unbundled network elements below costs in order to subsidize new entrants, or retransmission consent rules favoring broadcasters in negotiations with Cable TV providers.

Once we throw out the old LATA designations, the whole house of cards falls. Why do access charges usually cost more for short distance calls than long distance calls? Why do calls between IP-telephony, wireless and wireline platforms have different access charges? Why do access charges differ depending on whether it is origination and termination? In fact, if LATAs no longer matter in an all-IP world, why regulate access charges, reciprocal compensation, inter-carrier compensation at all? Moreover, why regulate interconnection, when Internet Service Providers have, on their own accord, freely agreed to carry traffic each other's traffic and interconnect. In the presence of multiple competitors, equal access provisions and carrier-of-last resort obligations are meaningless, outdated and anticompetitive. If consumers move to all distance IP services, how can they be slammed?

There are many old rules that no longer serve the public. For example, old broadcast rules, like retransmission consent and network non-duplication, were put in place to protect broadcasters in what Professor Thomas Hazlett has referred to as "subsidizing the killer app of 1952." These and other rules need examination to determine what needs elimination. If rules cannot be justified based on a cost/benefit analysis or demonstrated to improve social welfare, they need to be eliminated.

The fact is that Internet services are global services and, as such, it should be consider an interstate service subject only to FCC monitoring. The state should keep its regulatory authority of legacy copper networks, and providers should be able to abandon these networks for equivalent or superior IP services. Nesting regulatory jurisdictions is not appropriate for this newly dynamic and competitive interstate market.

Duplicative government functions also need to be eliminated, such as monitoring of industry conduct and performance, antitrust risks, fraud/unfair practices, privacy, safety, security, merger/acquisition, which are current handled in some form at the Federal Trade Commission and the Antitrust Division of the Department of Justice. In

addition, the elimination the "silo" structure of the FCC that treats services, technologies and providers differently is the first step, which is what I explained in August 1999 at an FCC forum on its development of a strategic plan for the 21st century.[37]

In terms of what needs to be kept, there needs to be a role in holding and accelerating spectrum auctions, maintaining licensing, preventing spectrum interference and handing international issues, as well as dealing with other consumer issues, reflecting a consumer-centric paradigm for all consumer communications services.

In addition, there should be several directional principles for a modern Communications Act that: limits mission creep by limiting new regulations to instances only when there is "demonstrable harm" to consumers (a consumer welfare principle), and where proposed regulatory solutions outperform the market solutions; develops policies that balances consumer protection, innovation and competition; and transfers IP services to federal authority; and lets the states keep their legacy copper authority, provided that firms can freely migrate and transition to unregulated IP networks.

Summary

In order to improve consumer welfare, it is necessary for a new Communications Act to reduce regulatory burdens and encourage experimentation with pricing, services and applications. A modernized communications law must reflect the new model of dynamic competition. Today's communications landscape is rampant with emerging companies, platforms and services that are disrupting, competing and collaborating with each other to offer increasingly faster speeds for Internet service throughout the U.S. Competition – not old monopoly-era telephone regulations – is the best driver of pro-consumer behavior, investment and new innovation.

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[37] I spoke on this topic before an FCC forum on the development of the FCC's Strategic Plan for the 21st Century.

In concluding, I want to take the opportunity to thank Chairman Fred Upton and Subcommittee Chairman Greg Walden for their leadership in leading this project, and I am available for any questions or testimony, if needed by the Committee.

Steve Pociask
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[redacted]

January 31, 2014

The Honorable Fred Upton
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Washington, DC 20515

The Honorable Greg Walden
2182 Rayburn House Office Building
Washington, DC 20515

Re: Modernizing the Communications Act – Response to White Paper #1

Dear Chairman Upton and Chairman Walden,

The Advanced Communications Law & Policy Institute (ACLP) at New York Law School respectfully submits the following comments in response to the Committee's white paper titled, "Modernizing the Communications Act." We appreciate the opportunity to weigh in and commend the Committee for launching its inquiry into updating the nation's telecommunications laws.

Should you or your staffs have any questions, please do not hesitate to contact us.

Respectfully submitted,

/s/ Charles M. Davidson
CHARLES M. DAVIDSON, DIRECTOR

/s/ Michael J. Santorelli
MICHAEL J. SANTORELLI, DIRECTOR

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To: The Honorable Chairman Upton and the Honorable Chairman Walden, Energy & Commerce Committee, U.S. House of Representatives

From: Charles M. Davidson & Michael J. Santorelli, ACLP at New York Law School

Re: Foundational Principles for Modernizing the Communications Act

Date: January 31, 2014

The House Energy & Commerce Committee is to be commended for launching its inquiry into updating the nation's telecommunications laws. Such a reassessment is long overdue since, as has been rightly noted, the communications marketplace is fundamentally different today than it was in 1996, when Congress last overhauled the Communications Act.[1] The Committee is also to be commended for engaging interested parties in an open process.

As policymakers, regulators, and others across the country discuss and debate legislative and regulatory modernization, the fact that the U.S. advanced communications sector is thriving should drive the discussion. An abundance of data indicates that consumers are the beneficiaries of significant gains from the increasingly wide range of innovative services, devices, and content being generated by firms throughout a vibrant broadband ecosystem. *These gains have occurred pursuant to a minimalist, bipartisan national policy framework designed to spur a robust advanced communications sector.* In short, Congress succeeded in its approach to advanced communications technologies in the 1996 Act.

As discussed in more detail below, this approach has driven innovation and competition throughout the U.S. advanced communications space. Service providers have invested well over $1 trillion dollars in broadband networks since 1996. Such robust availability of high-speed connectivity has sparked innovation in cutting-edge access devices (e.g., the rise of smartphones and tablets) and content (e.g., the thriving app economy), which in turn has generated enormous economic gains (e.g., thousands of jobs, a larger tax base, and relatively low barriers to entry for entrepreneurs). Equally as important, the innovative ethos that permeates this ecosystem is beginning to seep into key sectors. Broadband and IP-enabled services are poised to fundamentally disrupt not only every segment of the media industry, but also every segment of core sectors of the economy (e.g., education, energy, and healthcare). All consumers, and especially those in key demographic groups (e.g., senior citizens, people with disabilities, minority communities, and low-income households), are poised to benefit profoundly from these disruptions. Indeed, if the transformative potential of broadband networks and IP-enabled services is fully harnessed

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[1] *See Modernizing the Communications Act*, Jan. 8, 2014, Energy & Commerce Committee, U.S. House of Representatives, *available at* http://energycommerce.house.gov/sites/republicans.energycommerce.house.gov/files/analysis/CommActUpdate/20140108WhitePaper.pdf.

in these spaces, consumers will have access to better, more individualized, and more effective education, energy, government, and healthcare services.

To extend this momentum and encourage even more robust experimentation – with business models, service delivery, and every other dimension of the consumer experience – Congress must seize the opportunities afforded by the present inquiry to not only bolster those policies that have shaped our world-leading advanced communications ecosystem, but also to remove antiquated policies that are ill-suited for an era of IP-enabled communications and fast-paced innovation.

To these ends, and in response to the Committee's call for input regarding "thematic concepts for updating the Communications Act,"[2] we respectfully submit the following set of foundational principles, which, in our view, should inform reform efforts going forward. As an overview, these principles are:

1. Reform efforts should be properly contextualized and grounded in objective data. (p. 3)

2. Reform efforts should seek to align legislative and regulatory frameworks with new market realities and orient them around consumer demand. (p. 6)

3. Reform efforts should also focus on establishing policies that help unlock the full transformative potential of broadband and related advanced communications services. (p. 8)

4. FCC authority in the modern communications space should be more precisely delineated and, where appropriate, offset by laws of general applicability. (p. 13)

5. In this context of interstate, if not global, communications networks, the role of the states should be tailored and clearly defined. (p. 14)

Each principle is expanded upon below.

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[2] *Id.* at p. 2.

PRINCIPLE #1

Reform efforts should be properly contextualized and grounded in objective data.

Efforts to reassess policy frameworks in the advanced communications arena are too often dominated by:

- Academic debates over the minutia of regulatory theory;
- The contours of pre-existing, platform-specific regulatory frameworks; or
- Subjective preferences for certain regulatory outcomes.

We respectfully suggest that efforts to modernize policy frameworks should be properly contextualized and grounded in objective data.

The Telecommunications Act of 1996 was very much a product of its time. During the mid-1990s, "plain old telephone service" (POTS) remained the primary means of communication. Indeed, the number of basic telephone lines in service increased each year throughout the 1990s and peaked at 192 million lines in 2000.[3] During this same period of time, mobile telephony was ascendant, but the total number of mobile subscribers, while growing exponentially, still paled in comparison to the number of POTS users (by June 1996, there were about 38 million wireless subscribers in the U.S.).[4] Moreover, only one-third of adults in the United States had ever even heard of the Internet by May 1995.[5] As a result, the 1996 Act focused almost exclusively on attempting to "manufacture" competition in the provision of what many predicted to remain the main communications medium: POTS.

Soon after passage of the Act, however, the market began to evolve at a rapid pace. Advanced communications technologies like high-speed Internet access, VoIP, and next-generation mobile telephony quickly emerged in response to the twin forces of (a) consumer demand and (b) the light-touch regulatory framework that Congress had envisioned for these new services. From a policy perspective, the primary impact of these

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[3] *See Local Telephone Competition: Status as of Dec. 31, 2002* (rel. June 2003), at 1, FCC, http://transition.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/lcom0603.pdf ("*Local Telephone Competition: Status as of Dec. 31, 2002*").

[4] *See In the Matter of Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993 Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services,* Fourth Report, FCC 99-136, Table 1 (rel. June 24, 1999).

[5] *See* Pew Research – Center for the People & the Press, Question Search, Technology And Online Use Survey, May, 1995: Have you ever heard of the Internet?, http://www.people-press.org/question-search/?qid=306323&pid=51&ccid=51#top.

developments was broad recognition that the context had changed in fundamental ways in just a few short years.[6]

Fortunately for consumers, businesses, innovators, and markets, the 1996 Act, while focused primarily on POTS, set forth a foundational principle regarding how new and emerging services like the Internet should be governed. More specifically, Congress provided that it is "the policy of the United States…to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, *unfettered by Federal or State regulation*."[7]

The Act also enshrined a critical dichotomy between (i) "basic" services like POTS, which remained highly regulated, and (ii) more interactive "enhanced" services like Internet access, which were understood to, by the very nature of the technology, require a lighter touch.[8] Although a recent interpretation of the statute by a federal appeals court runs counter to the spirit, if not the letter, of this "hands off" national policy,[9] the regulatory framework provided for by Congress has fostered incredible growth in the advanced communications marketplace.

Unlike the POTS-dominant marketplace in 1996, the modern communications sector is characterized by vigorous competition amongst platforms, devices, content, and service providers. The sector evolves on almost a daily basis, driven by an insatiable appetite among consumers for mobile and IP-enabled services. Consumers have made it clear that POTS – highly regulated for well over a century – is not their platform of choice. *In short, the context for legislative and regulatory modernization is significantly different today than it was in the mid-1990s.* A review of recent data and consumer trends offers critical perspective on the scale and scope of these differences.

The total number of POTS lines in service dropped to a modern low of 96 million by the end of 2012,[10] down from its peak at the turn of the 21st century.[11] Of these, less than half – 44.5 million – were residential connections.[12] Meanwhile, the number of interconnected VoIP

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[6] *See, e.g.,* ROBERT W. CRANDALL, COMPETITION AND CHAOS: U.S. TELECOMMUNICATIONS SINCE THE 1996 TELECOM ACT (Brookings Press: Washington, D.C. 2005) (discussing market dynamics in the aftermath of the 1996 Act); JONATHAN E. NUECHTERLEIN & PHILIP J. WEISER, DIGITAL CROSSROADS: TELECOMMUNICATIONS LAW & POLICY IN THE INTERNET AGE 2nd ED. 51(MIT Press: Cambridge, MA 2013) ("DIGITAL CROSSROADS") ("…the 1996 Act has become increasingly anachronistic because its drafters did not fully anticipate, among other developments, the rise of the broadband Internet and its radical reordering of the telecommunications industry.").

[7] 47 U.S.C. § 230 (b) (2) (emphasis added).

[8] DIGITAL CROSSROADS.

[9] Verizon v. FCC, No. 11-1355, slip op. (D.C. Cir. Jan. 14, 2014) (interpreting section 706 of the Communications Act as providing the FCC with broad authority to regulate broadband services).

[10] *See Local Telephone Competition: Status as of Dec. 31, 2012*, at Table 3, FCC (rel. Nov. 2013) (hereinafter "*Local Telephone Competition - Dec. 31, 2012*").

[11] *Local Telephone Competition: Status as of Dec. 31, 2002* at 1.

[12] *Local Telephone Competition - Dec. 31, 2012* at Table 3.

subscriptions rose to nearly 42 million by December 2012, up nearly 50 percent in three years.[13] The vast majority of these – 34 million – were residential.[14] The shift away from POTS has been further hastened by the increasing desire of consumers to use mobile phones as their only means of voice communication. To this end, almost 40 percent of all households had "cut the cord" and gone wireless only by June 2013.[15]

Equally as important has been the growth in use of non-traditional communications services. General Internet use stood at 85 percent of all adults in May 2013,[16] up from 47 percent in June 2000.[17] Broadband adoption reached 70 percent by the middle of 2013.[18] Nearly three-quarters of adults use social networking sites like Facebook and Twitter to communicate for business and pleasure.[19] More than one-third of adults who send text messages on a regular basis prefer to communicate in this way over traditional phone calls.[20] And a rapidly growing percentage of adults use video-calling program like Skype or FaceTime.[21] Table 1 provides a summary of key data points.

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[13] *Id*.

[14] *Id.*

[15] *See* Stephen J. Blumberg and Julian V. Luke, *Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, January–June 2013*, at 1, National Center for Health Statistics, Centers for Disease Control (Dec. 2013), *available at* http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201312.pdf.

[16] *See* Kathryn Zickuhr, *Whose Not Online and Why*, at 2, Pew Internet & American Life Project (Sept. 2013), *available at* http://www.pewinternet.org/~/media//Files/Reports/2013/PIP_Offline%20adults_092513_PDF.pdf.

[17] *See* Kathryn Zickuhr and Aaron Smith, *Digital Differences*, at 5, Pew Internet & American Life Project (April 2011), *available at* http://www.pewinternet.org/~/media//Files/Reports/2012/PIP_Digital_differences_041312.pdf.

[18] *See* Kathryn Zickuhr & Aaron Smith, *Home Broadband 2013*, Pew Internet & American Life Project (Aug. 2013), *available at* http://pewinternet.org/~/media//Files/Reports/2013/PIP_Broadband%202013_082613.pdf.

[19] *See* Maeve Duggan & Aaron Smith, *Social Media Update 2013*, at 1, Pew Internet & American Life Project (Dec. 2013), *available at* http://www.pewinternet.org/~/media//Files/Reports/2013/Social%20Networking%202013_PDF.pdf.

[20] *See* Aaron Smith, *Americans and Text Messaging*, at 8, Pew Internet & American Life Project (Sept. 2011), *available at* http://www.pewinternet.org/~/media//Files/Reports/.

[21] *See, e.g.,* Lee Rainie & Kathryn Zickuhr, *Video Calling and Video Chat*, Pew Internet & American Life Project (Oct. 2010), *available at* http://www.pewinternet.org/~/media//Files/Reports/2010/PIP_Video%20calling%20data%20memo.pdf.

Table 1 – Trends in Consumer Communications Use[22]

	2000	2005	2012/2013*
POTS Lines in Service**	192.5 million 138.9 million residential***	175.3 million 95.8 million residential	96 million 44.5 million residential
Wireless Subscriptions	101 million	203.7 million	326 million
VoIP Subscriptions	<200,000	4.5 million	42 million 34 million residential
High-Speed Lines in Service	7.1 million	43.6 million	262 million
Broadband Adoption Rate	3%	33%	70%

*Most recent available data
**Retail switched access lines
***Also includes small businesses

In sum, these data indicate a vastly different context than what was evident in 1996. As such, it is respectfully submitted that, to the extent possible, discussions going forward revolve first and foremost around how policy can continue to promote more innovation and more investment in this space. How can policy promote more platform, device, and content competition? Ultimately, a "regulate first" mindset is not only data-poor, it is also at odds with current market dynamics, which have generated enormous consumer welfare gains and positioned the United States as a leader in the digital economy.

PRINCIPLE #2

Reform efforts should seek to align legislative and regulatory frameworks with new market realities and orient them around consumer demand.

To preserve the enormous consumer welfare gains being generated in the advanced communications arena – gains that have occurred in response to a bipartisan Congress's call for a mostly "hands-off" approach to regulation – policy should not impede what has become a consumer-driven transition away from POTS and a consumer-driven embrace of lightly regulated, borderless, IP-enabled services and networks. Continued progress hinges on the willingness of policymakers to recognize this new reality of communications in the United States and to structure responses accordingly. To accomplish these goals, reform

[22] *Sources*: FCC Local Telephone Competition Reports for Dec. 31, 2002; Dec. 31, 2005; Jun 30, 2008; Dec. 31, 2011; FCC Internet Access Services Reports for June 30, 2009; Dec. 31, 2012; Pew Internet & American Life; NTIA; Telegeography; CTIA.

efforts should expand policies that have succeeded in driving competition and innovation throughout the U.S. communications space. This will entail: (1) formalizing the minimalist regulatory framework for broadband and extending it to all IP-enabled services; (2) eliminating the "siloes" approach in the current Act; and (3) removing telephone-era laws that are inapplicable in an all-IP world. Taken together, this approach will support further investment in platforms and assure wide latitude for experimenting with new business models and services.

The broadband ecosystem has thrived under a light-touch regulatory framework that was developed in direct response to calls in the 1996 Act for restraint and minimalism.[23] Advanced networks have been deployed to nearly every corner of the United States, providing residents and businesses with numerous options for getting online and using high-speed Internet connections to transform their lives. According to the National Broadband Map, 96.7 percent of the U.S. population had access to at least one wireline broadband provider by the end of 2012, and nearly 90 percent had access to at least two, while about 95 percent of the population had access to three or more wireless broadband providers.[24] Such robust availability is due to more than $1.2 trillion in investment by broadband service providers between 1996 and 2010, and recurring annual investment in excess of $60 billion since 2011.[25]

In light of these continuing developments in the expansion of next-generation broadband networks, Congress should seek to stoke continued investment and foster even more robust intermodal competition and experimentation *by formalizing the current regulatory paradigm for broadband and extending it to all IP-enabled services.*[26] Doing so would protect against regulatory action at the federal or state levels that might undermine or reverse the prevailing model and chill investment and innovation.[27] This model is characterized by the

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[23] *See, e.g.,* William Kennard, Chairman, FCC, *Connecting the Globe: A Regulator's Guide to Building a Global Information Community*, at IX-2 (1999), *available at* http://www.fcc.gov/connectglobe/regguide.pdf (observing that "Government policy can have a profound impact on Internet development; it can either foster it or hinder it. To date, the Internet has flourished in large part due to the absence of regulation. A "hands-off" approach allows the Internet to develop free from the burdens of traditional regulatory mechanisms.").

[24] *See* National Broadband Map, Summarize, Analyze: Nationwide, http://www.broadbandmap.gov/summarize/nationwide.

[25] *See* Patrick Brogan, *Updated Capital Spending Data Show Continued Significant Broadband Investment in Nation's Information Infrastructure*, USTelecom Research Brief (April 12, 2012), *available at* http://www.ustelecom.org/sites/default/files/documents/042012_Investment_2011_Research_Brief.pdf.

[26] Even though the FCC has classified all broadband Internet access platforms – DSL, cable, etc. – as lightly regulated "information services," the Commission has still yet to do so for IP-enabled services like VoIP. Indeed, the FCC docket on this particular issue has been open for nearly a decade. *See In the Matter of IP-Enabled Services*, Notice of Proposed Rulemaking, 19 FCC Rcd. 4863 (rel. March 10, 2004).

[27] As discussed below, there are numerous opportunities for federal and state regulators to implement policies that might undermine ongoing progress in the broadband ecosystem. At the federal level, there is a possibility in light of the recent net neutrality decision that the FCC could extend common carrier regulation to broadband and IP-enabled services. *See, e.g.,* Brendan Sasso, *The FCC's Nuclear Option on Net Neutrality,* Jan. 14, 2014, National Journal, *available at* http://www.nationaljournal.com/technology/the-fcc-s-nuclear-option-on-net-neutrality-20140115. At the state level, regulatory commissioners have espoused a desire for a

following elements: a (1) generally deregulatory approach to broadband and IP-enabled services (i.e., the current "information services" paradigm) that is (2) administered at the national level, and that both (3) reflects the intermodal and borderless nature of new services and (4) positions consumer demand (not *ex ante* regulation) as the primary driver of policy in this space.

Implicit in this model is recognition of the converged and dynamic nature of the modern marketplace. With most new communications platforms and services being built around IP, a rigid, formalistic "siloes" approach to regulation no longer makes sense. In many ways, the competitive landscape has been flattened by IP, allowing for robust cross-sector competition that was simply not possible when the original communications laws were drafted and implemented. Indeed, IP-enabled services are disrupting every segment of the U.S. communications space and most sectors of the economy. As such, there are opportunities to not only revise the statute to reflect these new dynamics, which should include the elimination of outdated rules and requirements, but also to integrate modern notions of competition policy and analysis.[28] Doing so would shift the assumptions underlying the statute toward a fuller embrace of the competitive landscape for communications services in the United States. Equally as important, it would also encourage further experimentation in the delivery of key services to consumers (e.g., continued business model innovation; testing the extent to which consumers prefer certain services to be prioritized; etc.).

PRINCIPLE #3

Reform efforts should also focus on establishing policies that help unlock the full transformative potential of broadband and related advanced communications services.

Any rewrite of the Communications Act should also seek to unlock the full transformative potential of broadband and related advanced communications services. Among other things, this will require the development of policies to ensure that demand for and use of vital new communications services, especially in key demographic groups and sectors of the economy, continues to grow.

Over the last decade, there has been significant progress toward empowering all Americans with Internet access and the skills needed to put those connections to meaningful uses.

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more muscular and active state role in the regulation of these services. *See Cooperative Federalism and Telecom in the 21st Century*, Federalism Task Force Report, National Association of Regulatory Utility Commissioners (Nov. 2013) (updating but largely reinforcing NARUC's policies regarding the need for a strong state role in the cooperative model of federalism devised for the telecommunications space under the prevailing communications laws).

[28] For too long, competition analysis has revolved around "simplistic" notions like how many firms are competing in a market. In a converged market characterized by cross-platform competition, such approaches are inadequate. *See generally* Barak Orbach and Grace Campbell Rebling, *The Antitrust Curse of Bigness*, 85 S. Cal. L. Rev. 605 (2012) (describing the historical evolution of this "simplistic" approach to evaluating competition).

Broadband adoption rates have more than doubled over the last eight years, rising to 70 percent in 2013 (see Table 1, above). Yet, despite such promising gains, gaps remain. In particular, large percentages of demographic groups poised to benefit most immediately and profoundly from broadband and IP-enabled services – low-income households, senior citizens, people with disabilities, African Americans and Hispanics – remain unconnected. Table 2 provides a summary.

Table 2– Home Broadband Adoption (Percent of Population): 2009-20013

	2009*	2010**	2011†	2012††	2013†††
All Adults	65	68	69	65	70
Race					
White	69	72	74	70	74
Black	59	55	55	53	64
Hispanic	49	57	56	49	53
Age					
18-29	75	77 (16-44)	77 (16-44)	75	80
30-49	74			75	78
50-64	64	72 (45-64)	73 (45-64)	62 (50-64)	69 (50-64)
65+	35	45	49	41	43
Income					
Low-income	40 (<$20,000)	43 (<$25,000)	43 (<$25,000)	46 (<$30,000)	54 (<$30,000)
High-income	93 (>$75,000)	93 (>$100,000)	93 (>$100,000)	89 (>$75,000)	88 (>$75,000)

* *Broadband Adoption and Use in America*, FCC (2010)
** *Exploring the Digital Nation: Computer and Internet Use at Home,* National Telecommunications & Information Administration, U.S. Dept. of Commerce (Nov. 2011), *available at* http://www.ntia.doc.gov/files/ntia/publications/exploring_the_digital_nation_computer_and_internet_use_at_home_11092011.pdf
† *Exploring the Digital Nation: America's Emerging Online Experience,* NTIA, U.S. Dept. of Commerce (June 2013), *available at* http://www.ntia.doc.gov/files/ntia/publications/exploring_the_digital_nation_-_americas_emerging_online_experience.pdf
†† Joanna Brenner & Lee Rainie, *Pew Internet: Broadband*, Pew Internet & American Life Project (Dec. 2012), *available at* http://pewinternet.org/Commentary/2012/May/Pew-Internet-Broadband.aspx
††† Kathryn Zickuhr & Aaron Smith, *Home Broadband 2013*, Pew Internet & American Life Project (Aug. 2013), *available at* http://pewinternet.org/~/media//Files/Reports/2013/PIP_Broadband%202013_082613.pdf

While some continue to insist that the price of broadband is the sole impediment to more robust adoption in these communities, a growing body of research has confirmed that an array of more nuanced and community-specific barriers are in fact the primary obstacles to higher usage rates.[29] Foremost among these barriers is a widely held belief among non-adopters that broadband is not relevant to their lives and thus not worth an investment of

[29] *See, e.g.*, Charles M. Davidson and Michael J. Santorelli, *Barriers to Broadband Adoption: A Report to the FCC*, Advanced Communications Law & Policy Institute, N.Y. Law School (Oct. 2009), *available at* http://www.nyls.edu/advanced-communications-law-and-policy-institute/wp-content/uploads/sites/169/2013/08/ACLP-Report-to-the-FCC-Barriers-to-BB-Adoption.pdf ("*Barriers to Broadband Adoption*").

time and money in purchasing the service (and related equipment) and learning how to use it.[30] It is now widely acknowledged that this outlook impacts the perceived affordability of broadband, contributing to a significant number of non-adopters who view the service as too expensive despite the fact that prices have generally declined.[31] Related barriers revolve around a lack of digital literacy skills, which contribute to fears among some around the security and privacy of going online and participating in activities like e-commerce. Table 3 summarizes major barriers impacting broadband adoption by senior citizens, people with disabilities, minority communities, and low-income households.

Table 3– Barriers Impacting Key User Communities[32]

Senior Citizens	People with Disabilities	Minority Communities	Low-Income Households
▪ Lack of awareness regarding the value of using broadband ▪ Usability concerns ▪ Low rate of computer ownership ▪ Security and privacy concerns ▪ Lack of senior-focused training programs ▪ Lack of digital literacy skills	▪ Low levels of computer ownership ▪ Negative perceptions re accessibility of broadband and broadband-enabled services ▪ Affordability concerns ▪ Interoperability of assistive technologies ▪ Lack of digital literacy skills	▪ Lack of awareness regarding the value of using broadband ▪ Low rates of computer ownership ▪ Affordability concerns stemming from lack of perceive relevance ▪ Underdeveloped digital literacy skills	▪ Perception that broadband is not a worthwhile investment of scarce funds ▪ Lack of digital literacy skills ▪ Low rates of computer ownership ▪ Affordability concerns tied to billing issues

Successfully overcoming these barriers requires outreach and training initiatives that are tailored to address the needs of individual communities.[33] Indeed, the ability to calibrate

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[30] *See, e.g.,* Charles M. Davidson, Michael J. Santorelli & Thomas Kamber, *Broadband Adoption: Why it Matters & How it Works*, 19 Media L. & Pol'y 14 (2009), *available at* http://www.nyls.edu/advanced-communications-law-and-policy-institute/wp-content/uploads/sites/169/2013/08/Davidson_Santorelli_Kamber-BB-Adoption-Article-MLP-19.1.pdf ("*Broadband Adoption: Why it Matters & How it Works*").

[31] *Id. See also* Charles M. Davidson, Michael J. Santorelli, and Tom Kamber, *Toward an Inclusive Measure of Broadband Adoption*, 6 International Journal of Communication 2555 (2012), *available at* http://www.nyls.edu/advanced-communications-law-and-policy-institute/wp-content/uploads/sites/169/2013/08/Davidson-Santorelli-Kamber-Toward-an-Inclusive-Measure-of-Broadband-Adoption-IJOC-2012.pdf ("*Toward an Inclusive Measure*").

[32] These barriers were derived from: *Barriers to Broadband Adoption; Connecting America: The National Broadband Plan*, Federal Communications Commission (March 2010) ("*National Broadband Plan*"); Dharma Dailey et al., *Broadband Adoption in Low Income Communities*, Social Science Research Council (March 2010); Jon Gant et al., *National Minority Broadband Adoption*, Joint Center for Political & Economic Studies (Feb. 2010).

[33] *See, e.g., Toward an Inclusive Measure.*

programmatic responses to non-adoption in distinct communities is essential to not only increasing adoption rates but also to assuring that new users will be able to use their connections in meaningful ways. The most effective approaches in this context are structured as public-private partnerships, which combine public resources with the expertise of private firms or nonprofit groups to deliver key services (e.g., digital literacy training) to non-adopters.[34] Properly structured and deployed, these partnerships have yielded promising gains in many communities across the country.

In the context of broadband use in key sectors like education, energy, and healthcare, numerous barriers also impede further progress towards using new technologies to remake vital segments of the U.S. economy (see Table 4).

Table 4 – Barriers Impacting Key Sectors[35]

Education	Energy	Healthcare
▪ Cost concerns ▪ Outdated E-rate program ▪ Lack of a more targeted strategy for allocating federal funding ▪ Inadequate teacher training ▪ Demographic disparities in technology literacy ▪ Organizational barriers among educators ▪ Lack of adequate bandwidth within schools ▪ Lack of national curriculum standards	▪ Outdated regulatory framework creates little incentive for utilities to innovate ▪ State-by-state patchwork of regulation impedes national-scale deployment ▪ Substantial upfront implementation costs ▪ Lack of demand for smart home services by residential customers ▪ Unresolved data security, cybersecurity, and privacy concerns	▪ Inadequate reimbursement mechanisms for most telemedicine services ▪ Outdated privacy and security policies ▪ State-by-state patchwork of rules regarding physician licensure and credentialing ▪ Cost concerns ▪ Uncertainty regarding the applicability of tort law ▪ Skepticism among healthcare providers and patients regarding the value of using these tools

Removing these barriers will require similarly multifaceted approaches. In many instances, however, major impediments stem from state and federal laws and regulations that are unsuited for the broadband era. For example, state-level physician licensure policies were developed at a time when most doctors provided services only within a small geographic area.[36] Modern telemedicine systems, though, are borderless and allow physicians to

[34] *See, e.g.,* Charles M. Davidson & Michael J. Santorelli, *Broadband and the Empire State: Toward Universal Connectivity in New York*, Advanced Communications Law & Policy Institute, N.Y. Law School (Sept. 2012), *available at* http://www.nyls.edu/advanced-communications-law-and-policy-institute/wp-content/uploads/sites/169/2013/08/ACLP-Report-Broadband-and-the-Empire-State-September-2012.pdf.

[35] These barriers were derived from: *National Broadband Plan; Barriers to Broadband Adoption.*

[36] *See, e.g.,* Charles M. Davidson & Michael J. Santorelli, *The Impact of Broadband on Telemedicine*, Report to the U.S. Chamber of Commerce (April 2009), *available at* http://www.uschamber.com/sites/default/files/about/0904Broadband_and_Telemedicine.pdf.

consult with patients regardless of geographic location.[37] Federal and state policymakers are beginning to address barriers in many sectors. Recent examples include: E-Rate reform in the education space;[38] expanding the scope of reimbursement to cover more telemedicine services;[39] and efforts to modernize the energy regulatory framework to facilitate smart grid deployment.[40] But much remains to be done.

Modernizing the Communications Act provides numerous opportunities to address, both directly and indirectly, these types of critical demand side issues. For example, legislative modernization provides a unique opportunity to revisit existing universal service policies and programs and recalibrate them to more explicitly address lingering demand side issues (e.g., by shifting subsidies to consumers). Congress could also articulate a preference – and create mechanisms – for public-private models aimed at bolstering broadband connectivity.

Reform efforts could also address major barriers impeding greater use of broadband in certain sectors. These could include solutions to specific issues (e.g., calling for the implementation of a national physician licensure framework in the telemedicine space) as well as the articulation of general principles in support of further experimentation and innovation in the provision of key services. Ultimately, as innovators continue forward in their work to harness the transformative power of broadband and IP-enabled services in critical sectors, it is vital that they have sufficient latitude to calibrate delivery methods and business models according to organic consumer demand, not artificial regulatory or legislative mandates.

In short, Congress is respectfully encouraged to consider how to integrate comprehensive demand side policies into an updated Communications Act in a manner that maximizes existing resources (and shrinks obligations over time) while also furthering national imperatives for advanced communications technologies.

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[37] *Id.*

[38] *See, e.g., Fact Sheet: Update of E-Rate for Broadband in Schools and Libraries*, FCC (July 2013), *available at* http://transition.fcc.gov/Daily_Releases/Daily_Business/2013/db0719/DOC-322288A1.pdf.

[39] *See, e.g., Expansion of Medicare Telehealth Services for CY 2014,* Centers for Medicare & Medicaid Services (Jan. 6, 2014), *available at* http://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNMattersArticles/downloads/MM8553.pdf (detailing expansion of Medicare coverage for new telehealth services); Eric Wicklund, *More States Take to Telehealth Expansion,* July 17, 2013, Healthcare IT News, *available at* http://www.healthcareitnews.com/news/more-states-take-telehealth-expansion (reporting on efforts in various states to "mandate that private insurers reimburse healthcare providers for telehealth services on the same basis that they would for in-person services, while also prohibiting them from denying coverage for telehealth services.").

[40] For an overview, *see generally* Charles M. Davidson & Michael J. Santorelli, *Realizing the Smart Grid Imperative: A Framework for Enhancing Collaboration Between Energy Utilities & Broadband Service Providers,* Time Warner Cable Research Program on Digital Communications (Aug. 2011), *available at* http://www.nyls.edu/advanced-communications-law-and-policy-institute/wp-content/uploads/sites/169/2013/08/TWC_Davidson.pdf.

PRINCIPLE #4

FCC authority in the modern communications space should be more precisely delineated and, where appropriate, offset by laws of general applicability.

Modernizing the Communications Act will entail at least some recalibration of the FCC's mandate as the primary regulator of the U.S. communications space. To the extent possible, it is respectfully submitted that Congress should make every effort to more precisely define the contours of FCC authority in this highly dynamic sector and, where appropriate, offset narrower FCC oversight with laws of general applicability (e.g., antitrust, consumer protection laws).

Specificity in the statute, of course, does not automatically assure regulatory certainty (see, for example, the extended legal and regulatory battles that emerged in the aftermath of the 1996 Act, especially in the context of FCC implementation of Congressional mandates regarding telephone network access by competitive providers). Even so, precision in statutory grants of authority is increasingly essential in a highly dynamic marketplace because broad "catchall" provisions could eventually be used in ways that contravene Congressional intent. The recent kerfuffle over the legality of the FCC's network neutrality rules offers an illustrative example of how vague or seemingly innocuous provisions could blossom into broad regulatory power.

The Commission's latest attempt to justify imposition of network neutrality rules hinged on a broad reading of section 706 of the Telecommunications Act.[41] Although an appeals court vacated some of the rules, it also interpreted this particular section as possibly authorizing nearly limitless authority by the FCC to regulate broadband services.[42] Key to this reading was a questionable determination by the FCC that broadband was not being deployed in a "reasonable and timely" manner.[43] According to the court, this conclusion is likely sufficient to support broad interventions into the marketplace, so long as those interventions constitute "immediate action to accelerate deployment of [broadband] capability."[44] Previously, the FCC had rarely invoked section 706 except as the basis for issuing reports on the deployment status of "advanced telecommunications services" (i.e., broadband). The current interpretation – first advanced by the FCC and subsequently accepted the appeals court – not only broadens significantly the prevailing understanding of the meaning of this provision, it also undermines well over a decade of regulatory restraint by an agency that, for many years, grounded its approach in what it interpreted as a clear call by Congress to

[41] A previous attempt by the FCC to implement similar rules was struck down by a federal court because the Commission failed to justify that the Communications Act granted it authority to carry out its proposed censure of a broadband service provider. *See* Comcast v. FCC, 600 F.3d 642 (D.C. Cir. 2010).

[42] Verizon v. FCC, No. 11-1355, slip op. at 22 (D.C. Cir. Jan. 14, 2014).

[43] *Id.* at 27-28.

[44] *Id.* (citing 47 U.S.C. § 1302 (b)).

exercise caution in the regulation of dynamic services.[45] (Moreover, that such broad regulatory authority was unlocked by a new interpretation of data regarding broadband availability in the U.S. raises important questions about data gathering and analysis techniques at the FCC – questions that ought to be addressed during the present Congressional inquiry.)

At a time when the courts are increasingly deferential to agency interpretations of the outer bounds of their jurisdiction,[46] precision in any Congressional grant of authority to an entity, including the FCC, which operates in a sector undergoing constant creative destruction, is critical. To the extent possible, Congress should thus specify the FCC's reach on key issues like regulating broadband and IP-enabled services. As discussed above, an optimal path forward would be formalizing the regulatory framework that fostered such incredible growth in this space over the last decade.

Similarly, Congress should seize the opportunity afforded by the present inquiry to undertake a fundamental reexamination of the efficacy of locating primary oversight authority for broadband and IP-enabled services at the FCC. Some have argued in favor of eliminating or sharply reducing FCC authority in this space and replacing it with antitrust enforcement by other federal authorities like the FTC.[47] Others have called for systemic deregulation in light of current market forces and dynamics in the broadband ecosystem.[48] A middle ground approach would narrow FCC authority along the lines discussed above and supplement it with laws of general applicability (e.g., antitrust principles and consumer protection laws) that are enforced in appropriate venues (e.g., the FTC). At a minimum, Congress's efforts here should be guided by modern notions of innovation and competition that are reflective of the broadband ecosystem.

PRINCIPLE #5

In this context of interstate, if not global, communications networks, the role of the states should be tailored and clearly defined.

The historical balance of federal-state regulation in the telecommunications space evolved out of a very specific context: the development of the telephone network. Initially, telephone networks and POTS were almost exclusively local in nature. The formal

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[45] *See, e.g., Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities*, 17 FCC Rcd 4798 (2002), *aff'd* Nat'l Cable & Telecomm. Ass'n v. Brand X Internet Serv., 545 U.S. 967 (2005).

[46] In City of Arlington v. FCC, 133 S. Ct. 1863 (2013), the Supreme Court held that courts should defer to an agency's interpretation of its own jurisdiction so long as that interpretation is reasonable. This adds to a long line of case law around judicial deference to agencies when interpreting their enabling statutes. The landmark case here was Chevron v. Natural Resources Defense Council, 467 U.S. 837 (1984).

[47] *See, e.g.,* Jonathan E. Nuechterlein, *Antitrust Oversight of an Antitrust Dispute: An Institutional Perspective on the Net Neutrality Debate*, 7 J. on Telecomm. & High Tech. L. 19 (2009) (discussing the need for antitrust enforcement in the context of net neutrality disputes).

[48] *See, e.g.,* Christopher S. Yoo, *Deregulation vs. Reregulation of Telecommunications: A Clash of Regulatory Paradigms*, 36 J. Corp. L. 847, 866-867 (2011).

regulatory responses that eventually emerged at the state level echoed those that had been developed for services like the railroads and other services with natural monopoly characteristics. Regulation was exacting in nature and focused almost exclusively on achieving two related goals: assuring universal service and keeping local rates low. A state-centric approach was especially apt during this early era because most telephone calls were intrastate in nature. Indeed, as late as the 1910s, less than two percent of telephone calls were interstate.[49]

Even so, Congress recognized that the still-fledgling telephone sector was of national significance and crucial to bolstering economic activity. As a result, policymakers on several occasions acted to assert the primacy of *national policy* – i.e., policy for the benefit of all states – in the regulation of POTS. Examples included the assignment of regulatory jurisdiction over interstate aspects of POTS to the Interstate Commerce Commission in 1910; the Kingsbury Commitment of 1913, which served to sanction AT&T's monopoly in exchange for regulation and the realization of certain social goals (e.g., universal service); and the enactment of the Communications Act of 1934, which enshrined a model of dual federalism in the regulation of POTS.

The role that was eventually carved out for the states was not forged to uphold academic notions of federalism; rather, it was developed in recognition of the clearly identifiable intrastate and interstate elements of POTS. Some have argued that "Because every aspect of telecommunications can be characterized as an instrumentality of interstate commerce, Congress could have preempted all state regulation in this area under the Commerce Clause of the U.S. Constitution and placed the entire industry within the exclusive province of a federal regulator."[50] Instead, Congress, given the unique facts and circumstances at hand, developed a model of dual federalism and permitted the states to share some of the burden in realizing certain policy imperatives for the telephone network, namely universal service and low local rates.

The facts and circumstances of today are materially different. Today's communications space is dominated by inherently borderless that lack clearly identifiable intrastate characteristics. The clearest expression of this principle came in a 2007 case upholding FCC preemption of an attempt by a state PUC to regulate VoIP. There, the court held that the FCC can "preempt state regulation of a service which would otherwise be subject to dual federal and state regulation where it is impossible or impractical to separate the service's intrastate and interstate components, and the state regulation interferes with valid federal rules or policies."[51] While some state actors were upset with the FCC's approach, it was ultimately grounded in the reality of VoIP technology.

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[49] *See* Eli Noam, *Federal and State Roles in Telecommunications: The Effects of Deregulation*, 36 Vand. L. Rev. 949, 954 (1983).

[50] *See* JONATHAN E. NUECHTERLEIN & PHILIP J. WEISER, DIGITAL CROSSROADS: AMERICAN TELECOMMUNICATIONS POLICY IN THE INTERNET AGE 1ST ED. 47 (MIT Press: Cambridge, MA 2005).

[51] Minn. Pub. Utils. Comm'n. v. FCC, 483 F. 3d 570, 576 (8th Cir. 2007).

In short, modern market conditions demand a new balance of regulatory federalism in the advanced communications space. Recent trends in state-level legislation to deregulate communications services,[52] coupled with federal actions to streamline local processes impacting the deployment of broadband networks (e.g., a "shot clock" for wireless tower siting approvals[53]), support a fundamental reassessment of the formal regulatory role that states should play going forward. Failure to do so could invite additional attempts by state regulatory entities to explore the boundaries of their existing authority in this space. Without clearer federal guidance, this could lead to the creation of a patchwork of state-level regulations impacting various aspects of the communications market. Such would risk enormous consumer welfare losses in the form of higher prices and fewer competitive choices. This approach also might foreclose opportunities to collaborate with federal counterparts and stakeholders in industry to develop more consistent regulatory frameworks that include narrower but more well-defined roles for the states.

This is not to say that states have no role to play in the modern communications space. On the contrary, there are numerous roles that state actors – Governors, legislatures, regulators, etc. – can and should play going forward. Increasingly, many different state-level entities are working to fulfill new mandates for broadband set forth by the legislative and executive branches.[54] In particular, state authorities are embracing broadband as an essential tool for economic transformation and for remaking government. State legislators and executives are thus well positioned to set statewide goals for broadband and allocate funding and regulatory authority accordingly. Similarly, state regulators have also proven to be important actors in realizing state and national goals for broadband. For example, several state PUCs were tasked with overseeing broadband mapping initiatives, which were launched as a result of federal legislation.[55] Moreover, state PUCs have the ability to convene hearings and deploy public awareness campaigns in furtherance of federal and state public policy goals. Adapting these non-regulatory approaches in the broadband connectivity context could be a natural expansion of core competencies.

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[52] For an overview of recent actions by state legislatures, *see* Sherry Lichtenberg, *Telecommunications Deregulation: Updating the Scorecard for 2013*, National Regulatory Research Institute (May 2013), *available at* http://nrri.org/documents/317330/0e3a5988-6f57-492d-8ce5-70926cfe68f4.

[53] *See In the Matter of 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*, Declaratory Ruling, 24 FCC Rcd 13994 (2009), *aff'd* City of Arlington v. FCC, 133 S. Ct. 1863 (2013).

[54] *See, e.g.,* NCSL, Broadband Statutes (last updated: Dec. 16, 2013), http://www.ncsl.org/issues-research/telecom/broadband-statutes.aspx (providing an overview of dozens of broadband-related state laws that have been considered in recent years).

[55] For an overview of state-level mapping programs, *see* National Broadband Map, About: State Broadband Programs, http://www.broadbandmap.gov/about/state-broadband-programs.

Comments on Modernizing the Communications Act

Provided By
American Council On Renewable Energy (ACORE)
1600 K Street, NW, Suite 650, Washington, DC, 20006

January 31, 2014

As Congress considers updating the Communications Act, we are pleased to offer comments on the importance to U.S. renewable energy development of continued innovation and a robust, high-speed communications infrastructure.

Advanced system communications technology is an important element of emerging smart grid capability. A smart grid serves as an important platform for a more modern, reliable, and resilient grid power system enabling greater flexibility in power generation and management. Smart grid capability is also important for integration of increasing amounts of more dispersed and distributed power generation resources, including renewable energy.

The renewable energy industry contributes significantly to U.S. energy production, innovation and private investment. Over the past five years, more than 35% of all new power generation has come from renewable energy resources, including more than 49% of all new power generation in 2012 – surpassing all other energy sources, including natural gas. Since 2004, more than $350 billion has been invested in the U.S. clean energy market, including $48 billion in 2013, with a corresponding significant increase in jobs. Scale deployment and rapid innovation has allowed for a 90% reduction in the cost of wind power since 1980. Scale deployment of solar power has also contributed to massive reductions in the cost reduction of solar panels -- which have fallen 51% since the beginning of 2011 alone. Renewable energy is poised to contribute even more to our nation's energy, economic and environmental security.

Continued policy support for evolving communications technology will enable the deployment of smart meters, sensors, control systems and other elements of the smart grid. The smart grid involves overlaying the power generation, transmission and distribution system with a proven and reliable communications and control network, enabling operations to be more efficient and resilient. Through integrated and automated monitoring and control systems – which are the "smarts" in a "smart grid" – operators can better ensure system reliability, accommodate dispersed and distributed generation, including renewable energy resources, and better serve customers. From the customer perspective, the smart grid involves service enhancements, bidirectional communication and opportunity for capturing emerging market value, including demand response and other ancillary services, and being provided with information about energy usage so that customers can manage their energy consumption in new ways. This includes saving money or making choices about generation sources, including use of renewable energy.

Renewable energy generation is the fastest growing source of new power in the U.S. Smart grids will provide a platform for deployment and integration of renewable energy technologies at increasing scale. Incorporated into our power value chain, these smart grid technologies will allow the grid to operate effectively and reliably with renewable sources of energy, enabling it to manage, optimize and take more fully into account the value of these resources both at the transmission and distribution levels.

Advanced communications capability also enables smart buildings. An integrated network will provide a greater capability to incorporate in the power system and optimize the value of on-site generation, building energy efficiency and help reduce expensive peak loads.

Continued advancement in communications and smart grid capability offers an opportunity to improve the reliability and resiliency of the nation's power system, accommodate increasing levels of cost-competitive and clean renewable energy resources, empower consumers and businesses looking for ways to save energy and money, and reduce greenhouse gas and other emissions.

Thank you for the opportunity to comment and please let us know if we can provide any additional information. For additional information please contact:

Todd Foley
Senior Vice President, Policy and Government Relations
American Council On Renewable Energy (ACORE)
[redacted]
[redacted]

Proposal for Communications Act Rewrite
Prepared for The Energy & Commerce Committee
Prepared by Prof. Peter Bleam (Adrian College)
January, 2014

Background:

Cable systems are not required to establish public, educational and government channels.

Local franchising authority (those who award local cable contracts/franchises locally) is empowered by Section 531(a) of the Cable Act. This provides some local control of how a cable company is expected to serve the public interest.

Cable providers have not met their obligation as caretakers of the public "airwaves" and as a for-profit business using publically owned (and through local taxation) a publically maintained infrastructure.

As a result, citizens are disenfranchised, denied participation in free speech and denied the opportunity to exercise their First Amendment rights.

Statement of proposed change:

Cable systems are to be required by mandate to provide a dedicated high definition channel for educational purposes.

Existing local schools system organizations will be responsible for content and scheduling.

Rational:

To serve the public interest, and provide for the common good, our educational mission must have access to a real broadcast media experience as part of the public school mission.

Trying to improve public education? This change advances that goal.

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January 31, 2014

The House Committee on Energy and Commerce ("Committee on Energy and Commerce") is seeking to modernize the laws governing the communications and technology sector. The Communications Act of 1934 was last updated comprehensively in 1996 when Congress sought to stimulate local services competition. In order to facilitate a possible update of the Communications Act, the Committee on Energy and Commerce recently released a White Paper seeking comment on some basic issues with regard to whether and how to rewrite the Communications Act.[1] ADTRAN, Inc. ("ADTRAN") welcomes this opportunity to comment generally on the White Paper.

ADTRAN, founded in 1986 and headquartered in Huntsville, Alabama, is a leading global manufacturer of networking and communications equipment, with an innovative portfolio of solutions for use in the last mile of today's telecommunications networks. In addition, ADTRAN's Bluesocket Division product family includes a suite of innovative wireless LAN solutions that combine virtualized, cloud-enabled control and management with high-performance access points. Bluesocket wireless solutions are ideal for large enterprises, Small and Medium Businesses (SMBs), educational institutions and government agencies seeking to expand wireless coverage to meet the growing demand for always-on wireless access.

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[1] *White Paper*, "Modernizing the Communications Act," available at**:** http://energycommerce.house.gov/sites/republicans.energycommerce.house.gov/files/analysis/CommActUpdate/20140108WhitePaper.pdf (hereafter cited as "White paper").

ADTRAN's equipment is deployed by some of the world's largest service providers, as well as distributed enterprises and small and medium businesses and schools. ADTRAN thus brings an expansive perspective to the issues surrounding modernization of the Communications Act.

ADTRAN commends the Committee on Energy and Commerce for undertaking this important action. Although it has been 80 years since the basic laws still governing communications regulation were enacted, and 18 years since the last major rewrite of those laws, it is not merely the passage of time that warrants revisiting the law. The communications world is vastly different from 1996, when (i) Internet access was achieved through dial-up modems (at top speeds of 56 kbps) and AOL ruled the roost, (ii) the concern was the "Baby Bells" would be dominant, and (iii) wireless penetration was under 20% in the United States. Moreover, the uncertainty of applying 1934 or even 1996 regulations to modern communications networks is creating a drag on investment in new telecommunications infrastructure. While the FCC is well meaning, it operates under an outdated statute.

The Court of Appeals' recent decision vacating most of the FCC's Open Internet rules[2] starkly demonstrates how ill-suited the old "silos" are to today's communications services and networks. And the knee jerk reaction to that decision was a call by "net neutrality" advocates for the Commission to figure out a way to re-adopt those vacated rules,[3] instead of asking whether those rules made any sense in the first place. In a blog following the *Verizon* decision, the FCC

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[2] *Verizon v. FCC*, DC Cir, January 14, 2014, available at http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0115/DOC-325150A1.pdf.

[3] *E.g.,* http://act.freepress.net/sign/internet_FCC_court_decision2/?source=slider%3Fsource%3Dwebsite_actions; http://www.washingtonpost.com/blogs/the-switch/wp/2014/01/14/a-fema-level-fail-the-law-professor-who-coined-net-neutrality-lashes-out-at-the-fccs-legal-strategy/.

Chairman seemed to want to placate those "net neutrality" advocates seeking a resurrection of the Open Internet rules (emphasis added):

> My intention is to employ any necessary means among the wide variety of them given to the FCC by the Congress to sustain our jurisdiction. That the jurisdiction exists is not debatable. What path we take to assure it will be a function of circumstance, but whether we secure it should not be a source of doubt.
>
> How jurisdiction is exercised is an important matter. ***My strong preference is to do it in a common law fashion, taking account of and learning from the particular facts that have given rise to concern***. The preference is based on a desire to avoid both Type I (false positives) and Type II (false negatives) errors. It is important not to prohibit or inhibit conduct that is efficiency producing and competition enhancing. It also is important not to permit conduct that reduces efficiency, competition, and utility, including the values that go beyond the material.
>
> The principles provide sufficient guidance to set expectations for both producers and consumers. If something appears to go wrong in a material, not a trivial, way, the FCC will be available to use the totality of its authority for adjudication and enforcement. It will look to the Open Internet Order principles and it will examine the facts in light of the principles.[4]

The problem is that such a "common law" approach to regulation -- which follows the 1934 Act model -- would not appear to be well-suited to today's telecommunications markets. With vague proscriptions against "unjust and unreasonable" behavior, service providers can hardly know in advance whether a contemplated service or business model will be found unlawful, and so providers will be disinclined to invest in new technologies or innovative services. And the FCC has been notoriously slow in addressing these kinds of issues. The FCC investigated AT&T's WATS tariffs for over 25 years before finally concluding that market forces had overtaken the

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[4] http://www.fcc.gov/blog/ensuring-open-internet-now-and-future

need to determine whether volume discounts for businesses were unjustly discriminatory.[5] And even AT&T's effort to introduce a volume discount for residential customers sparked an investigation and complaint proceeding that took some two years before the Commission concluded that AT&T's "block-of-time" tariff was lawful.[6] Such regulatory delays are intolerable for rapidly evolving Internet services.

Nor is such fear of regulatory clouds merely a thing of the past. AT&T recently proposed a service under which application providers could pay the data usage charges of customers -- the "Sponsored Data" proposal.[7] And rather than elicit plaudits for trying to innovate, the Chairman of the FCC reacted to AT&T's announcement by seemingly casting a cloud over the offering:

> My attitude is, "Let's take a look at what this is, let's take a look at how it operates," Wheeler told the CES crowd. "And be sure that if it interferes with the operation of the internet, that if it develops into an anticompetitive practice, that if it does have some kind of preferential treatment given somewhere, then that is cause for us to intervene."[8]

And this declaration of scrutiny comes despite the fact that the model of having a commercial enterprise paying the communications usage charges of customers (or potential customers) has existed in the context of telephone service since toll-free 800 numbers were introduced in 1967!

Given the significant changes that have occurred since the Communications Act was adopted in 1934 and revised in 1996, and the rapidity with which technology and service

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5 *MCI Telecommunications Corp. v. FCC*, 627 F.2d 322 (D.C. Cir. 1980); *Revisions to Tariff F.C.C. No. 2 Wide Area Telecommunications Service (WATS) filed by American Telephone and Telegraph Co.*, 4 FCC Rcd 5389 (1989).

6 *MCI Telecommunications Corporation v. American Telephone and Telegraph Company*, 60 Rad. Reg. 2d (P & F) 967, released July 2, 1986.

7 http://www.businessinsider.com/att-sponsored-data-plan-2014-1

8 http://blog.hubspot.com/opinion/att-sponsored-data-proposal

continue to evolve, relying on the old silos of broadcast, cable, telecommunications and information services is clearly obsolete. While the FCC generally has good intentions in seeking to serve the "public interest," the current statute and tools often cause unintended harms. The time is ripe for a comprehensive reform of the Communications Act. In rewriting the Communications Act, ADTRAN urges the Committee on Energy and Commerce to keep several precepts in mind.

Moving forward, similar services should be subject to similar "light touch" regulation, where there is a presumption that innovation is lawful. Regulatory uncertainty should be minimized.[9] And rather than have the FCC choose which business models it believes best serve the "public interest," those decisions should be driven by the marketplace. Nor should the FCC be in the business of attempting to anticipate possible harmful activity and develop broad prophylactic rules. On the other hand, where a company does engage in anticompetitive conduct, the penalties should be significant, perhaps along the lines of treble damages under the antitrust laws.[10] The punishment ought to be severe in order to serve as a real deterrent, not merely a "cost of doing business."

ADTRAN looks forward to participating in this process of rewriting the Communications Act, and stands ready to serve as a resource on the rapidly changing telecommunications technologies. Telecommunications and advanced services have been, and will continue to be an

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[9] Nor should the FCC be given broad, unconstrained powers, since such authority is subject to abuse. For example, the FCC has used its broad "public interest" standard in merger reviews to extract extraneous concessions, such as repatriation of jobs, or to apply as a condition as-yet unadopted rules. http://www.fcc.gov/document/baker-calls-changes-merger-review-process.

[10] *E.g.,* 15 U.S.C. § 15.

engine for economic growth in the United States. The communications laws and regulations must not create any drag on this most vibrant industry.

January 31, 2014

Hon. Fred Upton
Chairman
Energy and Commerce Committee
US House of Representatives
2125 Rayburn House Office Building
Washington, DC 20515

Hon. Greg Walden
Chairman
Communications and Technology Subcommittee
Energy and Commerce Committee
US House of Representatives
2125 Rayburn House Office Building
Washington, DC 20515

Re: Comments on Communications Act Modernization

We, the undersigned scholars at the American Enterprise Institute's Center for Internet, Communications, and Technology Policy, respond below to your request for comments on your white paper on "Modernizing the Communications Act."[1]

Our comments are based upon two foundational points. First, the historical silo-based approach to communications regulation is inapposite to the modern communications ecosystem. Second, the Federal Communications Commission's ("FCC," or "Commission") functions are largely duplicative of those of other agencies. It is therefore our view that Congress should revise the approach taken by the Communications Act, eliminate the silo-based structure and replace it with a technology-neutral, competition-oriented approach. Concurrent with this process, Congress should rationalize the Commission, apportioning the majority of its functions and resources to its sister agencies. In particular, Congress should consider merging the FCC's competition and consumer protection functions with those of the Federal Trade Commission ("FTC"), thus combining the FCC's industry expertise and capabilities with the generic statutory authority of the FTC. More broadly, it is our view that many of the important functions and resources currently housed in the Commission can be redeployed – not eliminated – to yield a more coherent and streamlined regulatory edifice that would more effectively serve the goals of consumers, competitors, and Congress.

As currently structured, the Communications Act ("Act") divides the communications market into a number of regulatory silos, each applying a unique set of rules to a separate communications

[1] We write in our individual capacities, and the views expressed here do not necessarily represent those of the American Enterprise Institute or any of its affiliates, nor of any of the other institutions with which we are individually affiliated. The views expressed herein result from a consensus process. While we are collectively in agreement with the general ideas expressed, none of us necessarily agrees with them in their entirety and we each may change our views as dictated by the facts.

technology. Some technologies – most importantly, the Internet and Internet-based communications – are not covered by any specific silo and are therefore subject to uncertain regulatory treatment. While there are historical reasons for the Act to have been structured in this way, the silo approach is a poor fit for the modern, converged, communications marketplace. In the case of the Internet, it raises questions and creates uncertainty as to what rules apply to the various technologies and sectors that make up the Internet ecosystem. Such a structure does not facilitate the continued development of converging technologies and distorts or disrupts competition between otherwise competitive technologies.

Simultaneously, the Commission's jurisdiction and duties are in some respects duplicative of, or overlapping with, the jurisdiction and duties of other agencies. The most obvious example relates to competition regulation and consumer protection, where the Commission's authority overlaps with that of the FTC and the Department of Justice. The Commission's spectrum management duties are complementary to those of NTIA – resulting in the Commission and NTIA developing many duplicative competencies. In international communications matters, the Commission's role is limited to that of advising the Department of State.

These concerns are brought into sharp relief by the DC Circuit's recent decision in Verizon's challenge to the FCC's Open Internet Order.[2] This decision vacated the non-discrimination and non-blocking portions of the FCC's Open Internet Order; at the same time, it found that Section 706 of the Communications Act provides the Commission with broad authority to regulate the Internet. The ultimate boundaries of this authority are unclear – but it is conceivable that Section 706 gives the FCC authority to regulate areas such as online privacy, data security, and the so-called "Internet of Things," where the FTC is already actively engaged.

The remainder of this response develops the arguments that communications regulation needs to transition from a silo-based to a technology-neutral, competition-oriented approach; that the Commission's functions (today, and in a post-silo world) are duplicative of functions performed by other agencies; and, that the Commission's functions and resources can be effectively rationalized and redeployed across its sister agencies.

Transitioning from Silos to Competition

The silo-based approach of the Communications Act evolved alongside the development of the various technologies it regulates, in response to each of these technologies' unique uses and technological and economic characteristics. As is well understood today, as these technologies have developed, they have largely converged. Where each technology was once clearly distinct from the others, today they are increasingly substitutes for, complements to, and interoperable with one another. More important, different technologies are increasingly employed to support the same uses – and it is their uses that are the ultimate concern of consumers (and therefore of the law).

[2] *Verizon v. Federal Communications Commission*. United States Court of Appeals District of Columbia Circuit. 14 Jan. 2014. http://www.cadc.uscourts.gov/internet/opinions nsf/3AF8B4D938CDEEA685257C6000532062/$file/11-1355-1474943.pdf.

The silo-based approach clearly no longer fits the modern, converged world. For example, the telecommunications and cable silos, each once viewed as containing a natural monopoly, now house firms facing inter- and intra-silo competition.

As FCC chairman Tom Wheeler has observed, "the role of the FCC has evolved from acting in the absence of competition to dictate the market, to promoting and protecting competition with appropriate oversight." The economic evidence here is clear: in all but a few areas, communications networks no longer have the characteristics of natural monopolies, and should no longer be regulated as public utilities. Indeed, the convergence of the communications sector and the dynamic, intensely competitive, Internet ecosystem is now virtually complete.

Convergence has not only eliminated the need for technology-specific regulation of communications services, but also removed the justification for *sector*-specific regulation: it is past time that the communications industry follow the path of the airline and railroad industries and transition to a competition-oriented regulatory regime. The appropriate standard for competition oversight is consumer welfare and competition protection. That standard, by and large, is embodied in current antitrust laws. Industry-specific competition oversight is not only unnecessary, but leads to regulatory discrimination and market distortions.

In a competition-oriented regime, the market – not regulators – is the primary regulator of firms' conduct. Where, for some reason, the market fails to constrain harmful conduct, regulatory intervention is appropriate. Such intervention should occur on a case-by-case basis, allowing the market to develop as competition and consumer preferences dictate. There may be some need for the *ex ante* development of regulation – but only where there exists clear and convincing evidence that such regulation is needed to address actual, industry-wide, consumer harm. These are the principles that have governed antitrust and consumer protection regulation as embodied in modern jurisprudence and as practiced by the FTC and the Department of Justice.

The Existence and Dangers of Duplication

Eliminating the silo-based approach of the Communications Act and transitioning instead to a competition-oriented approach to regulating the communications industry raises questions about the relationship between regulation and antitrust – between the FCC on the one hand and the FTC and Department of Justice on the other. These questions are not new: antitrust issues have always loomed large in the communications industry. The silo-based approach of the Communications Act, however, has long required that the FCC be engaged in something more than antitrust law and consumer protection. A transition from silos to a competition-oriented approach to communications law would make long-standing concerns over FCC authorities that are concurrent with those of other agencies more pressing than they have been in the past.

The clearest example is that the powers of the FCC and FTC as dual sovereign entities are largely, and increasingly, duplicative of each other. Both agencies have exceptionally broad statutory mandates (e.g., the "unfairness" and "public interest" standards), which have substantial overlap. The public interest standard, for instance, has long been held to include antitrust concerns; and the standard

governing unfair methods of competition has long been defined as encompassing the antitrust laws. Both agencies also support important consumer protection missions.

Moreover, in recent years the FTC has increasingly focused on issues relating to data security, online privacy, and the Internet of Things. Following the DC Circuit's broad construction of Section 706 in its Open Internet decision, the FCC arguably has jurisdiction over these issues – and many others – as well. It is conceivable that these two agencies could assert conflicting authority over these areas. They could adopt substantive rules or approaches that create conflicts between the agencies or increase uncertainty for consumers and regulated parties. Even absent such conflicts, both agencies could better carry out their statutory obligations if operating under a unified regime. Analysis of issues such as those the FTC is currently working to address would benefit from subject matter expertise currently housed in the FCC; and vice versa. Maintaining the FCC and FTC as separate agencies with closely related subject matter jurisdiction divided along an uncertain technological boundary is the functional equivalent of silo-based regulation. It is, in fact, worse, because the silos are administered by separate agencies.

Duplication between the FCC and other agencies also creates undue burdens for regulated firms and consumers. Regulated firms face increased costs and uncertainty as they need to appear before, and comply with the orders of, multiple agencies. Where the agencies do work together to proscribe a firm's conduct, they may also effectively get "multiple bites at the apple," making it exceptionally difficult for firms to challenge agency abuses of power. Similarly, consumers currently face the uncertainty of multiple agencies when filing consumer complaints relating to Internet technologies. This confusion is harmful to consumers, and also limits the agencies' abilities to coherently and comprehensively respond to consumer concerns. Indeed, where agencies are competing for resources or authority, there may be incentives for the agencies *not* to share information.

Similar duplication, leading to needless conflicts, confusion, and cost, exists between the FCC and other agencies. For instance, the FCC shares jurisdiction with the Department of Justice and the FTC in reviewing mergers; the FCC and NTIA perform some similar spectrum management functions; and, the FCC's Universal Service Program, which is primarily administered by the Universal Service Administrative Company, pursues some of the same goals as programs administered by the Rural Utilities Service.

The Benefits and Viability of Eliminating Duplication

Transitioning from the silo-based approach to competition-oriented regulation of the communications industry would increase the extent to which the FCC's authority is duplicative of the FTC's authority. Even absent such a change, the current understanding of the FCC's Section 706 authority sets the agencies upon a collision course. It is time for Congress to step in, clarify the boundaries and rationalize the responsibilities of the FCC and its various sister agencies.

To be clear, we are not advocating eliminating the important functions that the Commission can and should play in the communications industry – whatever functions the Commission currently has or would have under a revised Communications Act would still exist. Where other agencies with duplicative or complementary functions or resources exist, those functions and resources previously

assigned to the FCC would be transferred to its sister agency. The largest bulk of the Commission's current structure would be merged with the FTC – its lawyers, economists, and engineers working to support the FTC's existing and growing portfolio of communications-related matters. Some functions currently performed by the Commission may not have a natural home in another agency – such functions would be preserved under the auspices of a new agency with limited jurisdiction and discretion.

We acknowledge that this proposal presents various substantial practical and political problems. It is not, however, unprecedented. The notion of rationalizing responsibilities of federal agencies has had currency for some decades. When Congress ended public utility-style regulation of the airlines, the Civilian Aeronautics Board's remaining functions were transferred to the Department of Transportation; functions relating to surface transportation were shifted from the Interstate Commerce Commission to the Surface Transportation Board. Creating the Department of Homeland Security involved merging and reassigning elements of various other agencies; the Department of Defense resulted from the merger of the previously independent military agencies. The current Department of Health and Human Services and the Department of Education were once part of a single department. President Obama has endorsed the idea of merging duplicative agencies in the past. The move to make government more efficient through consolidation and re-conception of agencies is supported broadly by Americans and is also enabled by technological advancement.

It would not make sense to merge all of the Commission's functions with the FTC. A few of these functions deserve particular note here and are discussed below. Other functions inapposite to the FTC's structure, function, resources, or purpose should either be assigned to another of the FCC's sister agencies or would find a home in the new, smaller agency mentioned above.

Universal Service

The Commission is the primary federal agency responsible for overseeing and directing Universal Service programs. These functions clearly do not fit within the FTC's mission. Individual aspects of the Universal Service Program may fit with other agencies' missions – for example, the Departments of Agriculture, Education, and Health and Human Services. Alternatively, it may make sense to create a specialized agency to oversee the continuing development of the program, perhaps incorporating aspects of the Universal Service Administrative Company.

In a broader sense, the future structure and management of the Universal Service programs is a central question that should be considered in the Communications Act update process. The proper agency or agencies to home all or parts of the program is an issue that could (and should) be considered if this process moves forward.

Spectrum

The FCC has unique expertise in managing spectrum allocation, a discrete function which belongs in a stand-alone agency, perhaps combined with the government spectrum functions currently performed by NTIA. Congress should consider different forms for this agency, including a semi-autonomous entity with sufficient authority to reassign underutilized spectrum from government to private sector use.

The market-oriented spectrum policy reforms adopted by Congress and operationalized by the FCC

over the past two decades have generated enormous benefits for consumers, and are one of the main reasons the U.S. now has the world's most advanced mobile wireless services. Market-based spectrum allocation has allowed spectrum to flow away from inefficient uses to more highly valued ones and thus made possible the explosive growth of mobile broadband.

A single agency with jurisdiction over allocation of spectrum for both commercial and government use could help to correct the current over-allocation of spectrum to lightly-used and technologically stagnant government systems. We suggest that consideration be given to the creation of a US Spectrum Service with the power to reallocate spectrum from government to the commercial sector, to conduct auctions, to establish transmission power levels and receiver standards, and to perform other functions currently executed by the FCC or NTIA in the furtherance of the public interest where spectrum is concerned.

Public Safety

The Commission currently has various public safety and infrastructure security functions which are ill-suited to the FTC's competencies and mission. These functions may be well suited to the Department of Homeland Security. Alternatively, questions relating to infrastructure security – including infrastructure cybersecurity – are broad, important, and specialized enough to be housed in an independent regulatory authority.

Conclusion

The U.S. leads the world in information and communications technologies. We were the first country to commercialize telephone, radio, television, and the Internet. We are also home to the world's leading software, Internet, and mobile companies. Maintaining America's leadership requires us to re-think the way ICT industries are treated by law and public policy.

To reiterate, the key benefits of this proposal are that it would:

- Rationalize and strengthen competition oversight and consumer protection regulation.
- Eliminate the duplication, confusion, and cost associated with multiple regulatory agencies with overlapping jurisdictions.
- Reduce the regulatory burden on industry in complying with outdated rules and duplicative obligations.
- Clarify consumer protection procedures with one point of contact for complaints and redress.
- Facilitate efficient development of evidenced-based policies that promote innovation throughout the Internet ecosystem, enhance economic growth, and maximize consumer welfare.

The last major statutory reform of our nation's communications regulations was the bi-partisan 1996 Telecommunications Act, which made broadband and the Internet a largely deregulated space, unleashing market forces to generate unprecedented benefits for all Americans and, indeed, for people throughout the world. We applaud the Energy and Commerce Committee for initiating this process to create a market-oriented framework that will protect and facilitate the continuing growth of the Internet ecosystem.

Respectfully,

Richard Bennett
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James Glassman
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January 31, 2014

Honorable Greg Walden
Chairman, Subcommittee on Communications and Technology
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Walden:

We write in response to your request for comments regarding an update to the Communications Act to foster more economic growth and innovation through communications and technology. Since 1973, the American Legislative Exchange Council has focused on providing practical policy answers to challenges facing America. State lawmakers are conquering today's economic challenges by refocusing on our nation's founding principles of limited government, free markets and federalism.

The Exchange Council provides a unique opportunity for state legislators, business leaders and citizen organizations from around the country to develop model policies based on academic research, existing state policy and effective business practices. These policies are the result of task force research and debate, and are intended to be academic documents for individual study. While these state-based policy solutions are meant to facilitate economic growth, one size does not fit all. Legislators have the opportunity to determine, in consultation with their constituents and legislative colleagues, what works best for their communities.

The Exchange Council's Task Force on Communications and Technology, which we chair, is comprised of nearly 200 members representing all regions of the country and every segment of industry, who believe that constant, dynamic innovation in communications and technology presents numerous complexities that defy traditional public policy prescriptions. To help policymakers understand the changes underway in the 21st Century economy, the Task Force brings together state legislators, private industry and experts to develop public policies that will promote economic growth, freedom of technology and innovation in the states.

We are pleased to provide you with the following six Principles for Communications and Technology, adopted by our Task Force in January 2013, as you consider how to update communications law. These principles serve as a guide for state policymakers, but speak

to universal ideas and could easily apply to issues facing policymakers at the federal level. The principles are as follows:

1. THE FREE MARKET SHOULD DRIVE COMMUNICATIONS AND TECHNOLOGY POLICY

Public policy relating to communications and technology should be driven by free market principles. The free market has enabled today's Internet Protocol-based, broadband-centric digital economy, which is increasingly characterized by disruptive change, vibrant competition, and consumer choice. Convergence is an ongoing feature of today's communications and technology markets; the providers of products and services once considered separate now compete for the same end users.

2. GOVERNMENT SHOULD STRIVE FOR COMPETITIVE AND TECHNOLOGICAL NEUTRALITY IN ITS POLICIES

Public policy should remain neutral with respect to existing and emerging business models, and technologies. Additionally, government procurement policies should be transparent, non-discriminatory, openly pro-competitive, and performance-based. Rules should be based on desired results rather than preferred designs; in other words, designs of devices, software, or networks must not be dictated through governmental mandates. Government must not seek to create new technologies through regulation.

3. CONSTITUTIONAL LIMITS AND PROTECTIONS SHOULD GUIDE GOVERNMENT POLICY AT ALL LEVELS.

All limits on government power and all protections for individual rights contained in the federal and state constitutions must inform and apply to all government policies regarding communications and technology. Constitutional limits and rights do not cease applying where practices or conduct involves digital technology or takes place online.

4. SELF-GOVERNANCE, CODES OF CONDUCT, AND OTHER VOLUNTARY INITIATIVES ARE PREFERRED METHODS FOR PURSUING SOLUTIONS TO NEW CHALLENGES; REGULATION SHOULD ONLY BE CONSIDERED WHERE MARKET COMPETITION FAILS AND REAL HARM EXISTS.

Voluntary codes of conduct, industry-driven standards and individual empowerment should be preferred over government regulation. If there must be government regulation of communications and technology, it should only be in instances where actual harm results to consumers, and only then with the lightest touch necessary. Prophylactic regulation based on fears about future harms is unwarranted and inappropriate. Instead,

empirical evidence of actual harms to consumer welfare should inform any analysis and rulemaking. Local government entry into the provision of wholesale or retail Internet or broadband services in an attempt to create competition should be permissible only in unserved areas and only where no business case for private service exists, upon a vote by local citizens, and subject to protections against cross-subsidies through taxes or other local government service revenues.

5. ANY NECESSARY REGULATIONS SHOULD BE SIMPLE, CERTAIN, AND ACCOMPANIED BY SAFEGUARDS.

Primary policy decision-making should rest with the legislative branch. Necessary delegations of authority should contain intelligible principles, and not confer unfettered discretion in either process or policy, or employ vague standards on regulatory agencies. Regulations should target actual harms to consumers or to public health or safety, and should not stifle innovation, competition, or access to technologies. Safeguards against regulatory excess may include: public records and other transparency measures; requirement that executive branch officials sign rules before they take effect; mandating cost-benefit analysis for economically significant rules; and attaching forbearance and sunsets in a certain timeframe to all new rules.

6. DEREGULATION SHOULD BE CONTINUOUSLY PURSUED TO REDUCE BURDENS AND PROMOTE GROWTH AND INNOVATION

Government policy should encourage innovation, investment and competition by ongoing removal of outdated regulations and other barriers to entry to the marketplace, and no new regulations should be adopted unless there is a showing of market failure or actual consumer harm. Implicit subsidies built into regulated rates are not sustainable and should be phased out. Any remaining subsidies should be explicit and preferably targeted to end-users as necessary.

We hope that you find these six Principles for Communications and Technology useful in the course of your work. Should you need additional information or if you have questions, please feel free to contact us via John Stephenson our Task Force Director at either [redacted] or [redacted]. We are happy to assist you in any way and we wish you good luck in this important endeavor.

Sincerely,

Rep. Blair Thoreson
North Dakota
Public Sector Chair

Bartlett Cleland
Institute for Policy Innovation
Private Sector Chair

COMMENTS OF ALEXICON, INC.
SUBCOMMITTEE ON COMMUNICATION AND TECHNOLOGY
COMMITTEE ON ENERGY AND COMMERCE
UNITED STATES HOUSE OF REPRESENTATIVES

"MODERNIZING THE COMMUNICATIONS ACT" WHITE PAPER

Introduction

Alexicon, Inc. (Alexicon) appreciates the opportunity to provide comment in regards to the Energy and Commerce Committee's efforts to modernize the Communications Act of 1934. Alexicon provides professional management, financial and regulatory services to a variety of small rate-of-return regulated Incumbent Local Exchange Carriers (ILECs) who serve diverse geographical areas characterized by rural, insular or Native American Tribal Lands. These ILECs, similar to most other small rate-of-return regulated ILECs, currently provide a wide range of technologically advanced services to their customers. These companies, through participation in various State and Federal high cost funding programs, and with their continued investment in network infrastructure, are providing customers in rural, insular and Tribal areas with services equal to or greater than urban areas, and at comparable pricing. Furthermore, these ILECs have been committed to providing their customers with innovative solutions, by adapting technologies that fit rural America, including Broadband and IP-enabled services.

Overall Comments

Alexicon commends the Committee for taking on the seemingly herculean task of modernizing or, as some have said, re-writing the Communications Act. As the Committee's first white paper correctly notes, "changes in technology and the rate at which they are occurring warrant an examination of whether, and how, communications law can be rationalized to address the 21st century communications landscape." As implied, the natural threshold question is whether the communications law can, and should, be revised to account for today's technology and communication marketplace. Next, if the Committee decides to move forward with revising communications law, it must be determined what must be changed and retained in order to improve regulation and at the same time not threaten the benefits federal regulation has had on the ability of consumers in high cost rural areas to receive communications services.

Alexicon believes that many, if not all, of the problems rural local exchange carriers (RLECs) have had with communications regulation in the past eighteen (18) years can be attributed to the adoption and implementation of regulations under the Act, and not the Act itself. Overall, the Act, and especially its universal service provisions, has performed well in bringing state-of-the-art communications services at reasonable prices to consumers living in high cost rural areas. This fact must be taken into consideration if and when the Committee begins revising communications law. After the FCC's 2011 Universal Service Fund (USF) and Intercarrier Compensation (ICC) Transformation Order, what has been in short supply for the RLEC industry is regulatory certainty. Absent a semblance of regulatory certainty, RLECs are hard-pressed to invest the capital necessary to maintain and enhance their networks. This leads a result opposite to that expected by the FCC in adopting the Transformation Order - less quality

broadband services being available in rural areas, and those that are available are being provided at higher prices. Again, this is not a direct consequence of the Act, but rather with its implementation by the FCC.

In the event that the Committee decides to move forward and update or modernize the Act, Alexicon offers the following for consideration. The Committee would do well to recognize the essential differences in the structure of the communications market, and the networks over which communications travel, between today and 1996 (or even back to when the basic structure of the Act was developed - 1934). As recognized in the Committee's white paper, today's technology is oftentimes incompatible with the basic structure of the Act. Data networks are now able to replicate, and in many cases replace, the networks traditionally associated with communications - telephony (i.e., point-to-point), broadcasting (point-to-multipoint), and cable television. While the current trend is associated with IP (Internet Protocol) based networks, which may or may not exist in the future, the probability is that networks delivering communications services will not devolve back to the traditional networks. Thus, the Act, in recognizing the likely continuing evolution of communications technology, must continue to be built upon several basic principles that are vital for rural, high cost areas:

- **Universal Service** - any changes to the Act must also, in addition to providing for ubiquitous broadband, ensure that current support mechanisms are transitioned in an orderly, reasonable, and predictable fashion. In addition, by removing artificial regulatory distinctions between so-called types of services (i.e., telecommunications and information), the universal service policy in the United States will be better and more rationally funded.
- **Regulatory parity** - Advantages cannot be provided via regulatory fiat to any carrier, group of carriers, or technology.
- **Common carriage** - In order to ensure as much as possible that universal service policy remains attainable, the Act must continue to recognize the importance of common carriage, or the responsibility of certain companies to serve all those who request service.
- **Regulatory stability** - the Committee should acknowledge the adverse effects that regulatory uncertainty has on investment. Without investment and upkeep of communications networks in rural areas, customers will never completely see the benefits of modern communications services.
- **Public Safety** - Any changes made to communications law must retain the commitment to public safety in rural areas - through reliable and ubiquitous emergency networks.

Specific Comments

The Committee's white paper contains five questions regarding its proposed efforts to modernize the communications law. Alexicon offers these comments in regards to those questions.

5. *Does the distinction between information and telecommunications services continue to serve a purpose? If not, how should the two be rationalized?*

   Alexicon will tackle the most important question first. This question, how to treat the historical and regulatory-constructed differences between telecommunications and information services, should inform the rest of the Committee's overall work on the possible modernization of communications law.

   There is no longer any purpose for the distinction between information and telecommunications services. There is no longer a need or reason to maintain what is now an artificial distinction between networks used to deliver information and other communications services; instead, there is but one network with which communications law should be concerned - the public network. The public network encompasses all current and future methods and technologies for delivering the services customers desire - voice, data, video, and whatever else the future holds. By removing this distinction, the Committee can ensure the continuing existence of universal service funding, and will make sure all similar services are brought under one regulatory umbrella. Also, removing service and technology-oriented distinctions will provide a level competitive playing field, remove regulatory arbitrage opportunities, and provide a more flexible and robust law.

   While it may be true that the distinction between telecommunications and information services is blurring, what is not at issue is the fact that all services, no matter the technology used or company involved, require a reliable network over which to deliver those services to their customers. In high cost rural areas, where there is not, in many cases, a competitive market case to be made to invest and provide service, the RLEC is often the sole network provider, and usually the sole service provider. Any definitional change made between telecommunications and information services, to the extent it could impact the build out and maintenance of broadband-capable networks in high cost rural areas, must acknowledge this fact.

1. *The current Communications Act is structured around particular services. Does this structure work for the modern communications sector? If not, around what structures or principles should the titles of the Communications Act revolve?*

   As stated above, the Act as currently structured was formed around delivery systems that had not yet converged into the data network we see today. Any modernization of

communications law must first recognize that there is no cogent need to differentiate regulatory requirements based on technology or the company delivering the service. While some differentiation between highly and less competitive services may need to be left in place during a transition period, convergence of services, delivery methods, and providers will eventually lead to a complete removal of the dividing lines between services provided over the public network.

2. *What should a modern Communications Act look like? Which provisions should be retained from the existing Act, which provisions need to be adapted for today's communications environment, and which should be eliminated?*

   Alexicon firmly believes that the Universal Service, Common Carrier, consumer protection, and public safety features of the Act must be retained. As to other aspects, a modern Communications Act should contain provisions that ensure regulatory parity between types of providers and technology, although in some instances (such as in areas where the competitive market has not, by itself, brought the desired services to consumers), additional public interest obligations may be prudent. However, even in the most regulatory-heavy situations, a new Act must allow for a consistent level of regulation and allow for a transition to more flexible types of regulation as circumstances warrant (such as the arrival of a new technology or competitor).

3. *Are the structure and jurisdiction of the FCC in need of change? How should they be tailored to address systemic change in communications?*

   While the current structure of the FCC may not be ideal for facing the challenges of an ever-evolving industry, it will be even more difficult for the Committee to come up with a provision in the Act that allows the Commission sufficient flexibility to act and react. As history has shown, the FCC appears to have the necessary leeway to restructure its operations as necessary. The important thing for the Committee to accomplish is to provide the FCC with a clear and concise set of laws from which to implement any needed regulatory changes.

4. *As noted, the rapidly evolving nature of technology can make it difficult to legislate and regulate communications services. How do we create a set of laws flexible enough to have staying power? How can the laws be more technology-neutral?*

   This is another conundrum facing the Committee - how to predict the future of technology. Beyond assuming that technology will continue to evolve, which drives continual changes in consumer demand, this is an impossible task. Therefore, the Act should require technological neutrality at a high level, and then provide the FCC with the authority to execute its duties in this regard. In other words, the FCC can move more quickly than the Act can ever hope to move. However, an overall approach that can be taken is to acknowledge the basics of how the public network operates - connections and transport. Customer connections, the means by which customers originate and terminate communications of all types, are provided by a multitude of technologies. Each of these technologies, and the entities that provider them, must be treated equally under the Act

and FCC rules. The transport, or the part of the public network that ensures customer communications originate and terminate at the proper connections, must likewise be treated equally and, importantly for rural areas, must be priced reasonably. To the customer, and ultimately for the connection and transport-based public network, the services transmitted look entirely the same; thus, there is no rational reason to treat them differently.

Conclusion

Alexicon does not envy the Committee in the task it is undertaking. A modernization or complete overhaul of the Communications Act must be carefully considered and cautiously performed. The first thing the Committee must do is answer the threshold question - does the Act require a modernization or complete overhaul? Alexicon believes there are features of the current communications law that are not conducive to ensuring high cost, rural areas of the United States receive, and continue to receive, the communications services necessary for survival. As stated above, major policy realignment is needed to ensure communications law recognizes the changes that have taken place in the communications sector in the past eighteen years, and that will continue to take place. In short, the Act's current focus on services, service providers and the differences between them must come to an end, and should be refocused on the reality of the rapidly evolving public network.

Respectfully Submitted,

Douglas K. Kitch, CPA
Principal
Alexicon, Inc.
3210 E. Woodmen Road, Suite 210
Colorado Springs, CO 80920
[redacted]

ALLVID
Tech Company Alliance

January 29, 2014

The Honorable Fred Upton, Chairman
The Honorable Henry Waxman, Ranking Member
Energy and Commerce Committee
U.S. House of Representatives
Washington, DC 201515

The Honorable Greg Walden, Chairman
The Honorable Anna Eshoo, Ranking Member
Subcommittee on Communications and Technology
Energy and Commerce Committee
U.S. House of Representatives
Washington, DC 20515

Dear Chairmen Upton and Walden and Ranking Members Waxman and Eshoo:

The AllVid Tech Company Alliance is pleased to respond to the Committee's January 8 White Paper inquiry to stakeholders. Of specific concern to the Alliance is the Committee's question: "What should a modern Communications Act look like? Which provisions should be retained from the existing Act, which provisions need to be adapted for today's communications environment, and which should be eliminated?"

For more than 20 years, Congress has sought to promote a competitive environment for multichannel video programming and services. Any modernization of the Communications Act should carry forward that commitment. In particular, to achieve a truly competitive environment, competition among the devices that discover, render, store, and interact with such programming and services will be essential.

The need for device competition in delivering multichannel video programming and services was addressed in Section 304 of the Telecommunications Act of 1996, which added Section 629 to the Communications Act. Section 629 requires the FCC, "in consultation with appropriate industry standard-setting organizations," to "adopt regulations to assure" the commercial availability of competitive devices from manufacturers and retail vendors that are independent of the multichannel video programming distributors ("MVPDs") whose systems the devices would access.

Section 629 was enacted at the cusp of MVPDs' transition to digital techniques, but its goals have not been fully realized. The main challenges have arisen because operators' approaches to secure delivery ("conditional access") and to offering interactive features and functions have been widely disparate. Cable operators have resisted attempts to negotiate approaches that are nationally portable from system to system. Additionally, the FCC has maintained "forbearance" for DBS, has not addressed in regulation the latest developments in video distribution technologies, and has refrained from addressing device portability between and among MVPD systems.[1]

The transition to delivering multichannel video programming and services via Internet Protocol ("IP") techniques offers an opportunity to accomplish Congress's longstanding competitive objective. In delivering content to the home, and in specifying device interfaces for home networks, system operators and independent manufacturers are now relying on standards that would support an "IP Gateway" approach, in which a pan-MVPD device market is readily feasible using technologies known and standardized today. The Alliance demonstrated this feasibility by filing a complete specification with the Commission on September 20, 2011.[2]

The competitive potential of private sector IP standards will not be realized without preserving the Congressional direction to the FCC contained in Section 629. Without this directive, operators will be free to tie their services to particular devices – primarily the ones they lease to consumers on a non-competitive basis. Moreover, without insistence on device competition, MVPD operators will seek to remain competitively "siloed" by assuring that consumers cannot easily switch service providers, even though IP and gateway technology will make this competition readily achievable. Even within a class of MVPD service, cable operators have resisted establishing interoperability from system to system, and have resisted allowing competitive devices to offer consumers an integrated guide menu combining MVPD and on-line programming and services.

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[1] The FCC did informally propose a "gateway" solution based on Internet Protocol standards in its National Broadband Plan, but has not proceeded beyond that point. See, *Connecting America: The National Broadband Plan*, GN Docket No. 09-51, Section 4.2, at 50 (2010). The Commission also has agreed that a next-generation standards solution is necessary to implement Section 629. *In the Matter of Basic Service Tier Encryption*, MB Dkt. No. 11-169, PP Dkt. No. 00-67, Report and Order at ¶ 35 n.162 (rel. Oct. 12, 2012).

[2] *In the Matter of Video Device Competition, Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices, Compatibility Between Cable Systems and Consumer Electronics Equipment*, MB Dkt. No. 10-91, CS Dkt. No. 97-80, PP Dkt. No. 00-67, letter from Robert S. Schwartz, Counsel, AllVid Tech Company Alliance to Marlene H. Dortch, Sec., FCC (Sept. 20, 2012), with attached draft specifications and draft regulation.

Despite the availability of standards-based IP techniques, MVPD operators have moved in the direction only of offering "apps" for some services, to some device makers, some of the time. Yet the move to IP delivery makes it possible to offer a next-generation standard interface that supports competition from *any* device, *any* time.

The FCC endorses one standards-based interface for conditional access, CableCARD. But the CableCARD standard became stable only recently, just as operators' technology is moving to IP delivery instead. If Congress fails to maintain the fundamental requirements of Section 629, this would close the door on both device and pan-MVPD competition – just as the standards-based potential for competition has become real and apparent.

The Alliance is aware that in moving forward the Committee will seek the views of stakeholders and the public. The Alliance welcomes the opportunity to participate in this process, through further representations to the Committee, as well as by working with MVPDs under FCC and Committee oversight, to achieve a pro-consumer, pro-competitive result.

Sincerely,

ALLVID TECH COMPANY ALLIANCE

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[redacted]

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[redacted]

Counsel

January 23, 2014

The Honorable Fred Upton, Chairman
U.S. House Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Upton:

This letter is in response to your call for comments on the update of the Communications Act of 1934 as amended by the Telecommunications Act of 1996 ("Act"). In general, the current structure of the Act has been based on the regulation of telecommunications services. The regulatory approach to these services did not take into account the rapid convergence between the separate platforms that delivered video and voice services.

By the middle of the 1990s, incumbent local telephone companies such as Bell South and Bell Atlantic dominated the markets for local telephone services, while cable companies such as Comcast and Time Warner dominated the market for video distribution or cable services. AT&T, Sprint, and MCI did battle in the provision of long distance services. Cable companies started picking away at the local telephone market by providing large business customers with services that bypassed incumbent telephone company networks, while smaller, non-facilities-based companies resold long distance telephone services. Literally hundreds of these companies provided service in the State of Florida.

But by the time the Telecommunications Act of 1996 was passed, the communications industry started to show signs of increased convergence. Cable companies, long hampered by inadequate technology to provide voice, were now experimenting with voice and cable services over coax cable. Incumbent local exchange companies were adding long distance services while long distance companies were establishing spinoffs to provide local service. Technologies and markets were mixing.

By the beginning of the 21st century, the Act, just half a decade old, was already becoming obsolete. Integrated subscriber digital services networks (ISDN) offered by incumbent LECs were being replaced by digital subscriber networks (DSL) and cable operators were now being looked at as competitors in the local telephone markets. In addition, AT&T and Verizon stood on the horizon looking at the video distribution market, prepared to introduce their fiber-to-the-home and fiber-to-the-curb services to consumers and ready to compete with cable bundled offerings of video, telephone, and internet access.

Of course we can't forget wireless services. By the early 2000s, flip phones that could access a browser and take a consumer to the internet and allow texting were common place, but the introduction of Apple's iPhone revolutionized wireless, turning the phone into a minicomputer while leading to increased demand for internet access services via wireless facilities and the crunch on spectrum.

I need not bore you with the history. You know it as well or better than I do. With the convergence of networks and services and the increased access to the internet that companies were now providing, voice telecommunications went from being the main silo on the farm of communications services to a mere app on a mobile device that was increasingly used for broadband. Along with the de-emphasis of voice came, in my opinion, an emphasis on commerce. The ability to send voice, video, and text over

high-speed networks means that participants in the knowledge markets could send more information and data at higher speeds. Content providers and app developers who were probably closed out of certain markets due to geographic location or costs could now more cost effectively participate in the knowledge markets from anywhere in the country where broadband access is available.

It's no longer about whether a company provides long distance voice services vs. local voice services, versus video distribution. Today's broadband company provides the access ramps to the internet in order to facilitate the movement of commerce. A regulatory structure centered on services will no longer work because it will mean policy focusing on the wrong areas. The titles of the Act should include reference to our knowledge markets in particular and commerce in general.

Because of convergence between services and networks and the emphasis on commerce, distinctions between telecommunications and information services are no longer relevant. As I discussed before, telecommunications is another broadband app; just another method, albeit important, for delivering information, data, content. Broadband has incorporated voice, data, text, and video due to the synergies and interoperability of internet protocol. If Congress must use an applicable title to describe services, the nomenclature should be information services, because that is the product that broadband facilitates through the conduit of commerce; information.

In closing, let me say that I applaud the Committee for its efforts in updating the Communications Act. It is difficult to keep legislation and regulation on pace with changes in the industry, but waiting any longer means that effective policy will only have further to go to catch up.

Should you or your staff need to contact me, I may be reached at [redacted].

Sincerely,

Alton Drew

Modernizing the Communications Act
House Committee on Energy & Commerce
January 31, 2014

AT&T commends the Members of the House Energy & Commerce Committee for undertaking this much-needed effort and welcomes the opportunity to contribute to the conversation on potential modernization of the Communications Act of 1934 ("the Act"). As the Committee notes in its January 8, 2014, White Paper, the Act has grown by accretion over the years since 1934. It has largely remained organized by technology – whether wireline or wireless telephone, broadcast or cable TV, and satellite. This siloed structure served the public well for many years, when technology was relatively static. More recently, however, the rapid pace of technological innovation and the Internet-driven convergence of different technology platforms into various types of Internet Protocol (IP)-based networks have strained the implementation of the Act, the Federal Communications Commission (FCC), which is charged with applying its provisions, and the courts that have repeatedly been called upon to adjudicate the FCC's interpretation and application of the Act, without timely legislative clarity or guidance.

Regulators and industry alike find themselves looking to outdated, legacy technology distinctions in deciding how to treat particular new services that transcend technological boundaries. As a result, voice service provided by Skype is treated differently than that provided over AT&T's wireless network, which is treated differently than a cable provider's VOIP service, which in turn is treated differently than voice service that travels over the legacy Time Division Multiplexing (TDM) network. Yet, as the White Paper acknowledges, consumers often treat these services as interchangeable, to the point that many consumers may not even know whether their residential phone service is TDM or Voice over Internet Protocol (VOIP). These legacy regulatory distinctions also dampen – redirect and misdirect – innovation and investment, causing industry to focus its efforts on technologies or services that are subject to the lightest regulatory touch.

Moreover, this legacy regulatory structure requires wireline providers to continue paying tens of billions of dollars each year to maintain a legacy TDM network that is experiencing an

ever-diminishing subscriber base. Fifteen years ago, wireline providers provided service to virtually every home and business with a landline telephone. Today, less than 30 percent of households still have a traditional telephone line (in some states the number is in the teens and falling); the rest rely on a variety of facilities and non-facilities-based alternatives (including cable operators, wireless providers, competitive local exchange carriers (CLECs), and over-the-top VoIP providers) for voice services. Nonetheless, legacy TDM network providers are required to maintain a wireline connection to every home and business, even as their competitors have no such obligation. This is an unsustainable path. With each passing year, TDM providers are spending vast sums to maintain yesterday's technology, instead of putting the money toward deploying and expanding the next-generation, IP-based, fiber and wireless broadband networks that the market clearly demands and for which subscribership and traffic figures have been increasing so steeply over the past several years.

The historical organization of the Act by particular technology platforms and its implementation through extended, prescriptive rulemaking proceedings have long outlived their usefulness. This approach is not only inconsistent with today's fast-moving communications marketplace and ongoing technological transformation; it is increasingly harmful to investment and innovation. Gone are the days when consumers conducted their voice communications over a TDM, circuit-switched wireline network, looked to cable providers and broadcasters for uni-directional, pre-scheduled, non-interactive video entertainment on a small handful of channels, and wireless phones, the size of a brick, were available only as a luxury item for a small minority of the population. Today, consumers watch video, talk, text, play games, shop, learn, manage their money, navigate, apply for jobs, interact with government agencies, monitor their health status and conduct an endless variety of other activities over an array of different applications that run over a variety of devices, operating systems and IP platforms. They expect to be able to do all of these things on their laptops, tablet computers, their smart phones, their gaming consoles and, increasingly, on their smart TVs. They expect their voice calls to go through whether they originate on the TDM network, a VOIP service, a wireless phone, Google voice or Skype. The market demands that this rich multiplicity of services and applications be available on mobile wireless networks, WiFi, cable providers' networks and the fiber and copper networks of wireline providers.

At the outset of a fundamental reexamination like the one the Committee suggests, it is useful to consider how just how broad and varied the communications ecosystem is today. It has progressed far beyond the world of the few service providers that existed while Congress was writing the Telecommunications Act of 1996. 4G wireless services are broadly distributed across the country. Apple, Samsung and others are offering smart phones with capabilities that were unimaginable in the early 1990's. Cable and traditional wireline providers are locked in fierce competition with each other, both offering voice, video and data. Competing browsers, search engines and mobile operating systems offer consumers an array of options for their communications interfaces. And over-the-top services offer consumers an endless variety of alternatives for connecting, communicating and consuming entertainment: Facebook, Google voice, Instagram, Skype, Twitter, YouTube. The list goes on and on; and it grows by the month.

Against this backdrop, it no longer makes sense to restrict the reach of the Act to a small handful of network providers. Nor is it justifiable to impose upon a subset of firms the detailed level of regulation that is a hold-over from the days of monopoly regulation based on static characteristics of discrete services or networks. In today's marketplace, failure or overreach by one provider merely presents an opening for a competitor. And given the variety of services and platforms, that waiting competitor may be in an entirely different sector of the industry. In this varied and competitive marketplace, only light-touch regulation can be justified, and it should encompass all of the relevant market participants, regardless of whether they were historically within the ambit of the Act. Where regulation is necessary or appropriate to protect consumers and promote the public interest (such as E911 requirements), it should apply to all platforms. Plainly, such rules do no good if they apply only to providers serving less than 30 percent of consumers.

With that background, AT&T submits the following proposal for updating the Act. Understandably, the Committee is just starting this review and we anticipate that there will be many proposals submitted for consideration. We look forward to participating in this process and the ensuing dialogue.

1. ***The current Communications Act is structured around particular services. Does this structure work for the modern communications sector? If not, around what structures or principles should the Titles of the Communications Act revolve?***

As the White Paper correctly notes, the Act's current structure carries a variety of flaws in the 21st century: (1) it fails to accommodate the convergence of technologies in the modern digital era; (2) it does not envision today's intermodal competition, so asymmetrical regulatory obligations apply to functionally equivalent consumer services; and (3) it drives the FCC's technology silos, which in turn result in fragmented and inconsistent federal oversight. As the White Paper concludes these factors combine to create regulatory uncertainty – a lack of predictability about the FCC's role and authority. This, in turn, threatens to dampen innovation and investment, and reduces the ability of the technology and communications sectors to fully contribute to job creation and economic growth.

The Committee could pursue alternate paths in this initiative. AT&T believes that a wholesale rewrite of the Act could well be in order. The market would certainly benefit from a complete restructuring of the Act around core principles that would apply across the ecosphere, while retaining the provisions of the current Act that are working and benefitting consumers. A comprehensive rewrite could also help future-proof the ultimate framework for a longer period of time. If however the Committee opted for slightly less than a complete overall, consumers and industry would also benefit from a significant rewrite – an exercise that would leave in place appropriate pieces of the current structure, while reworking the statute to focus more effectively on competitive parity and technological neutrality. Third, the Committee could consider creating a new title that would apply to the next-generation, broadband-enabled services and platforms to which the market is converging. This reform model could leave in place -- on a temporary basis and subject to an eventual sunset -- the outdated portions of the Act as a transitional mechanism to apply, briefly, as the market completes the ongoing transition to the competitive, IP-based services, for which more broadly applicable, light-touch regulation is appropriate. There are likely other workable reform models as well. As long as a reworked Act moves the current regulatory structure from a prescriptive model to more of an adjudicatory model, focuses regulatory oversight on specifically enunciated and clearly bounded goals and objectives, and applies equally – in a light-touch framework -- to like services and platforms, the Committee will be able to declare victory.

AT&T submits that a *new* Communications Act should be organized around five main principles: Service to All Americans; Public Safety and Network Reliability; Competition; Consumer Protection; and Spectrum Management. The market results produced by the level and type of light-touch regulation currently applicable to wireless services should be the goal of any re-write. Over the last 15 years, the wireless marketplace has grown at a staggering rate. There are now more mobile wireless device accounts in the United States than there are men, women and children in the country. And the industry is already establishing wireless connections to a variety of other items across the nation: electrical meters; major utility assets in the electrical, gas and water networks; passenger vehicles; body-worn sensors for patients in the hospital and at home; even waste receptacles. By any measure, the wireless industry, with its light-touch regulation has been a success story. Any rewrite of the Act should emulate this model for the entire industry.

2. ***What should a modern Communications Act look like? Which provision should be retained from the existing Act, which provisions need to be adapted for today's communications environment, and which should be eliminated?***

Whatever the precise form of the rewrite, AT&T submits that the Act should: (1) focus on meeting core objectives; (2) recognize the significant and ongoing marketplace and technological changes; and (3) enable the FCC to perform clearly defined functions that will cut across different technology platforms and applications, but be limited in scope. Competitive parity and technical neutrality should be the watch words. Consumers expect to have a similar experience and similar protections, whether they are using Verizon's or Comcast's VOIP service, Skype, Google voice, or AT&T's wireless service. So too, the regulatory protections that attach to that experience should be alike across different applications and technologies. Similarly, video providers – DirecTV, Comcast, Netflix, AT&T's U-verse or Hulu – are increasingly becoming indistinguishable from the consumer's perspective; they should have a similar collection of regulatory rights and obligations.

Accordingly, the following principles should inform an updated Communications Act:

- **Service to All Americans:** The Commission should continue its focus on the current Act's goal of universal service, but in a competitively and technologically neutral manner. First and foremost, it should focus on ensuring broadband connectivity to all Americans, not legacy voice service. As AT&T has discussed at length in connection with the IP transition, voice service will continue to be available to all Americans, but it will be a broadband application, not a unique and separately regulated service obligation.

- **Public Safety and Network Reliability:** The Commission should address 911 access, location accuracy and database obligations. These objectives would apply equally to VOIP, wireless and, as appropriate over-the-top providers. CALEA and some forms of outage reporting would also fall under this heading.

- **Competition:** Congress should specifically direct the Commission to recognize and encourage a market-based, commercially negotiated interconnection regime to govern packet-based communications with limited oversight functions. In other areas affecting competition, the Commission would focus, *inter alia*, on numbering obligations and number portability. Any regulatory obligations or rights that aim to further competition should apply in a competitively and technologically neutral, as well as reciprocal, manner to all providers.

- **Consumer Protection:** The Commission should receive specific, clearly defined authority to protect consumer welfare, particularly with respect to public safety, emergency response and law enforcement access and the universal availability and accessibility of broadband networks and services. The Commission would continue its important work on disabilities access, where thanks to the Communications and Video Accessibility Act, we are already seeing more of the eco-system-wide approach that AT&T advocates for the remainder of the FCC's work.

- **Spectrum Management:** The Commission would continue with many of the spectrum functions currently preformed today including: spectrum allocations and licensing; establishing and enforcing service rules, including build-out requirements and operating parameters; and facilities siting.

The agency should no longer regulate business transactions between competing members of the marketplace, absent some rigorous showing of a real, ongoing -- not a hypothetical -- market failure. In a world of robust, inter-modal competition, and in which new services and applications seem to arise on a weekly basis, the justifications for the regulatory model of the 20th century no longer exist. To fully unleash the competitive potential of the marketplace to drive innovation – and the consumer benefits that such innovation provides – the new Act should remove regulatory arbitrage as a business strategy. Services that are functionally similar or substitutable from the consumer's perspective should be treated similarly by the statute, regardless of their history or technical underpinnings. In today's highly competitive, converged communications ecosystem, any asymmetric regulation based on technology not only would fail to protect the many consumers relying on a different platform for essentially the same service; it

would also affirmatively harm consumers by needlessly increasing the costs of more highly regulated services.

Consumer access to broadband communications is the best way to ensure a competitive consumer marketplace. The Commission, therefore, should be rededicated to facilitating universal broadband deployment and adoption in order to ensure that the benefits of competitive, packet-based services are available to all American consumers. To this end, the Commission's ongoing regulatory authority should be focused on promoting consumer deployment and adoption of broadband, regulatory certainty in markets, and private sector investment in IP infrastructure. The Commission should be specifically directed by Congress to promote, rather than mandate, broadband infrastructure deployment and investment through rulemakings under the Administrative Procedures Act, while at the same time be prohibited from establishing rules or adopting practices that would inhibit or discourage broadband deployment and investment in broadband facilities.

Thus, the *new* Act should provide the FCC a clear grant of limited and bounded authority only over those platforms, services and applications in a manner that directly furthers the clearly delineated goals and objectives outlined above. In other words, recognizing today's convergence around broadband-enabled IP services does not mean that the FCC should be given *carte blanche* regulatory authority over the Internet. The agency's regulatory authority instead should be restricted to pursuing the achievement of the enunciated goals and objectives. In this vein, the Commission should have no rulemaking authority in the context of real time communications services that has not been expressly granted by Congress. The *new* Act should specifically delineate the FCC's authority over broadband enabled services and platforms. It should make clear that the FCC has no authority to regulate the rates, charges, terms or conditions for, or entry into the provision of any broadband enabled services.

The *new* Act should further ensure that any rules the FCC is specifically authorized to establish (i.e. those adopted pursuant to the five above organizing principles) apply equally to all equivalent services or applications regardless of the underlying platform. Likewise, recognizing that services and applications provided over IP platforms are inherently borderless, these services and applications should not be subject to state regulation, except for generally applicable public safety and consumer protection requirements that Congress would delegate to states and that

would apply to all companies. Moreover, the *new* Act should explicitly direct the Commission to determine which of its existing rules should be carried over into an all-IP ecosystem. This determination should be based on a full examination of the evidence and a rigorous cost-benefit analysis. There should be no presumption that all existing rules appropriately promote the five principles. Congress should direct that both new and existing regulations automatically sunset, unless the Commission readopts them after appropriate, evidence-based inquiry and analysis.

Depending on the approach that the Committee takes to revising the Act, it would also be important to stress that, under the new statute, packet-based services should not be reclassified as legacy telecommunications services subject to Title II, legacy information services subject to Title I, or legacy cable services subject to Title VI of the Act. Similarly, the Commission's authority under Title III should be clearly limited to ensure that it may not be used as a basis for the disparate regulatory treatment of packet-based services provided by commercial wireless licensees. Providers of these services should not qualify as common carriers for any purpose. There should be no continuing requirement to maintain TDM functionality or facilities once a network operator is providing IP-based, or other next generation services. Indeed, the FCC should be specifically charged with facilitating the transition from TDM to IP-based and other next generation services.

3. Are the structure and jurisdiction of the FCC in need of change? How should they be tailored to address systematic change in communications?

The platform-specific organization of the FCC has become obsolete in a market in which the latest entrepreneur can create the next disruptive innovation -- the next YouTube or Skype -- and spark the next revolution in the industry. Whether a service travels over wireless spectrum, a fiber network, a cable network, a power line or bounces off a satellite, the focus should be on achieving the enunciated goals and objectives with minimal marketplace interference. These are the functions around which the FCC should be organized.

Rulemaking: An FCC for the 21st century should also rely less, if at all, on protracted, prospective rulemaking proceedings and more on an enforcement paradigm. The industry simply moves too quickly and changes too frequently to be governed effectively by regulatory proceedings that can take years and years to conclude. And prophylactic regulation, by its very nature, inhibits innovation. The special access proceeding has been pending at the FCC for more

than eight years, while the marketplace has undergone a sea-change. A quicker decision, likely in the context of an enforcement proceeding, rather than a prospective rulemaking, would have provided the industry much needed certainty and allowed innovation to proceed.

With respect to the relatively few prospective rulemakings that the agency may need to conduct, it should be required to: (1) consider market forces and conduct a rigorous cost-benefit analysis before establishing any new regulations; (2) publish its decisions promptly; and (3) create shot clocks for resolving agency matters.

Jurisdiction: The dichotomy between inter- and intra-state jurisdiction has become entirely irrelevant in the modern marketplace with current and future technology. For VOIP and wireless subscribers – the vast majority of voice callers – this distinction is a relic of a bygone age, and accordingly should be written out of the Act. As voice becomes yet another application on the broadband networks, this jurisdictional distinction becomes meaningless. Dual or split jurisdiction has no place in the new paradigm for universal service; and the very notion of inter-carrier compensation should die with the TDM network, so jurisdiction is a moot point for that purpose as well. Artificial attempts to retain dual jurisdiction in ILEC special access offerings through application of the 10% rule is yet another examples of a jurisdictional mechanism that has outlived its purpose.

Enforcement: AT&T submits that enforcement brought against clear instances of anticompetitive actions within an otherwise competitive market, rather than prospective rulemaking that assumes non-functioning, non-competitive markets, should become the primary mode of action for the FCC. Separate, informal and formal, fast-track enforcement procedures should be established to guide the agency's enforcement. A useful model for this type of proceeding is the section 717 process for complaints alleging violations of the Act's disability access requirements.

Duplicative Regulation: The rewrite process offers Congress the opportunity to look across the various agencies that touch the communications space and rationalize regulatory functions and jurisdictions more generally. In several different areas, the FCC has overlapping authority with another federal agency, resulting in a dual-oversight arrangement that leads to significant uncertainty and delay for industry as well as potentially inconsistent and unnecessary regulation. The Committee's review of the Act presents the opportunity to rationalize this

structure, eliminate duplication and redundant functions and focus the responsibility with one agency that has the subject matter expertise and the appropriate jurisdictional scope.

In the same vein, the merger review process does not appear to benefit from the involvement of the FCC in addition to either the Department of Justice or the FTC, whichever may be handling a particular transaction. This type of joint review process imposes a substantial additional burden on the parties to a transaction, one that is not borne by almost any other industry segment in connection with merger activity. The FCC can facilitate any necessary license transfer in furtherance of the decision from either DOJ or the FTC, but need not conduct its own separate "public interest" analysis. Mergers in the airline, oil and gas and auto manufacturing industries are adequately reviewed by the DOJ and FTC process. Indeed, a merger between major industry heavyweights and platform providers like Google and Yahoo would likely be exempt from FCC review. If the DOJ/FTC process is sufficient for all of these transactions, it should suffice for the telecommunications industry as well.

4. ***As noted, the rapid evolving nature of technology can make it difficult to legislate and regulate communication services. How do we create a set of laws flexible enough to have staying power? How can the laws be more technology neutral?***

Any revised Act should start from the assumption that competition in the new broadband enabled communications marketplace is driving investment, innovation and consumer benefits and that the economic, prescriptive regulatory approach used for legacy services will impede, rather than facilitate, these developments.

Congress should impose automatic sunsets on all FCC prospective rules, whether new or existing. The rules would require affirmative action on the part of the FCC for their continued effect. Moreover, to the extent the FCC undertakes any new rule-making or enforcement (or moves to readopt any rules that are sun setting), those efforts should be limited to overseeing those areas of the modern marketplace that are not adequately addressed by the robust competition in this innovative and fast-growing sector of the economy.

The agency should no longer regulate business transactions between competing members of the marketplace, absent some rigorous showing of a real, not a hypothetical, market failure. This will allow the agency to come closer to keeping up with the pace of the market, and avoid

retarding innovation. It will also help to assure the competitive parity and technological neutrality that we have previously said must be the watch words for any rewrite effort.

5. Does the distinction between information and telecommunication service continue to serve a purpose? If not, how should the two be rationalized?

Under a significantly revised and refocused Communications Act, the telecommunications/information services distinction should have no enduring role in determining regulatory scope and jurisdiction. It may have served its purpose well, as it first evolved through Commission precedent and then was enshrined in the 1996 Act, helping encourage new technologies and nascent markets. Now, however, this all-or-nothing paradigm has given rise to asymmetrical regulatory treatment, especially since the broadband-enabled services marketplace has become the primary mode for communications. It creates incentives for new entrants to pursue the short-term opportunities of regulatory arbitrage. Instead, Congress should look to create a level, playing field based on the existence of a self-sustaining, dynamic and competitive marketplace, which will promote long-term investment in, and deployment of, broadband communications services.

The distinction should therefore play no role in a revised Communications Act. Our communications networks are moving rapidly and inexorably toward an all-IP future. Soon, voice communications will ride exclusively over the broadband networks, and consumers should be secure in the certainty that they will remain reliable, affordable and continue to offer the core set of features and functions on which people have come to rely. Rather than perpetuate an unworkable statute and anachronistic definitions, a reworked Communications Act, as described herein, should be focused on treating like functions alike, but applying a common model of regulatory restraint and light touch regulation in furtherance of clear, but limited, goals and objectives.

Conclusion

AT&T welcomes the Committee's interest in revising the Act to make it relevant to the 21st century market. We look forward to continued cooperation and dialogue with Committee Members and Staff on the many important issues that will arise. And, most importantly, we are

eager to help the Committee devise a statute that will fully unleash the competitive and innovative potential of the communications industry.

AMERICAN TELEVISION ALLIANCE

January 31, 2014

The Honorable Fred Upton
Chairman
U.S. House Energy and Commerce Committee
2125 Rayburn House Office Building
Washington, DC 20515

The Honorable Greg Walden
Chairman
Subcommittee on Communication and Technology
U.S. House Energy and Commerce Committee
2125 Rayburn House Office Building
Washington, DC 20515

Dear Chairmen Upton and Walden:

The American Television Alliance ("ATVA") appreciates this opportunity to respond to your request for comments on comprehensive telecommunications reform in your January 8, 2014 "white paper."

Introduction

The retransmission consent regime has shown itself incapable of accommodating the transformative changes to the video marketplace that have transpired in the more than 20 years since it was created, and does not work. It has become a weapon in the hands of the four networks and their affiliates, allowing them to play one multichannel distributor off against another. Both the reauthorization of the Satellite Television Extension and Localism Act of 2010 ("STELA") and the Communication and Technology Subcommittee's efforts to update the Communications Act more broadly present prime opportunities to take decisive steps to reform this broken system, so long as action is swift; consumers cannot wait and should not be left vulnerable to service shutdowns for years to come. The members of the American Television Alliance and the millions of Americans that have endured "retrans" blackouts applaud the Subcommittee's attention to this important issue.

I. About the American Television Alliance

Created in 2010, ATVA brings together an unprecedented coalition of consumer groups, pay-TV providers, and independent programmers to raise awareness of retransmission consent blackouts and how they harm consumers. Our goal is to bring about reform of the system to reflect the realities of today's marketplace. Our members

include the American Cable Association, Cablevision, DirecTV, DISH, Public Knowledge, New America Foundation, Time Warner Cable, Verizon, and many others.[1]

II. History of Retransmission Consent

Retransmission consent is a comparatively modern creation. Congress created it in the 1992 Cable Act. Before the Cable Act, distributors could retransmit a broadcaster's local signal without the station's consent so long as the requirements of copyright were met. And copyrights were cleared in the form of the statutory copyright license that Congress enacted in the 1976 Copyright Act. Indeed, even the need to satisfy copyright is of relatively modern design. The 1976 Copyright Act actually overruled an earlier Supreme Court decision that had held that retransmission of a broadcast station's signal in the local market was not copyright infringement.

Of course, the Cable Act was passed in a market that is very different from the market today. Cable providers enjoyed exclusivity in their local market. Satellite TV was in its infancy. The Internet as we know it didn't exist. Local telephone companies provided nothing more than voice service over copper wires. Twenty-one years later, the market has changed dramatically. Cable operators are no longer the exclusive multichannel video programming providers, and a system designed for the video landscape of 1992 is not a system that works in today's world.

III. Need for Reform

While local network affiliates continue to enjoy a monopoly on their network's content in their local market, consumers are no longer limited to a binary choice (over-the-air or cable) for their television service. Cable television is no longer the only multichannel outlet for television stations, as it was in 1992. Satellite TV providers now offer multichannel packages across the nation. In many major markets, local telephone providers have run fiber to millions of homes and offer state-of-the-art television services. Online video distributors present yet another outlet – one that is not bound by the same laws that restrict cable and satellite providers, such as must carry and mandatory channel placement. Nor should it be bound; but Congress should reconsider the wisdom of selectively imposing such obligations on some, but not all, distributors.

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[1] ATVA Membership: The Africa Channel, American Cable Association, American Public Power Association (APPA), BendBroadband, Bright House Networks, Cablevision Systems Corp., CenturyLink, Charter Communications, Comporium, DIRECTV, Discovery Communications, DISH Network, Eastern Rural Telecom Association, GMC, Harron Communications, The Independent Telephone and Telecommunications Alliance, Massillon Cable TV, Mediacom Communications, Midcontinent Communications, New America Foundation, NTCA – The Rural Broadband Association, Outdoor Channel, Parents Television Council, Public Knowledge, Retirement Living TV, Rural Independent Competitive Alliance, NUVOtv, Starz Entertainment, Suddenlink Communications, Time Warner Cable, USTelecom, Verizon, and Wave Broadband and Astound Broadband.

Through it all, our laws have failed to keep pace with this rapidly changing market. Broadcasters use their own monopoly to "whipsaw" distributors, or play them off against one another, to drive up retransmission consent fees, threatening to withhold their programming from distributors who fail to pay their ransom. This distorted market is further imbalanced by the increasing consolidation among television broadcasters and the practice of separately owned and allegedly competing stations jointly negotiating retransmission agreements with distributors.

The problem is getting rapidly worse. There were 12 broadcaster programming blackouts in 2010. In 2011, there were 91. And in 2013, there were 127 broadcaster blackouts. And who pays when programming is blacked out? The consumer who lacks access to unique network programming. Local broadcasters collected more than $1.24 billion in retransmission consent fees in 2010. That annual take nearly doubled over the course of two years to $2.36 billion in 2012. It increased yet again in 2013 to $3.3 billion, and SNL Kagan projects broadcast TV stations' retransmission fees will reach $7.6 billion by 2019. And it is the consumer who pays again when programming providers must pass on these exorbitant fees in the form of higher prices.

Obviously, reform is needed, as Members of this Subcommittee have already recognized. And there are options out there for achieving reform. Ranking Member Eshoo along with Congresswoman Zoe Lofgren, and Congressman Scalise along with Congressman Cory Gardner, introduced legislation last year aimed at addressing the issue. Consumers deserve better, and there are clear paths for reform. Both the STELA reauthorization and the Communications Act update offer concrete opportunities to take decisive steps in reforming the retransmission consent regime to reflect the realities of today's marketplace, so long as action is swift, as the clock is ticking and more shutdowns loom as regrettably inevitable.

ATVA looks forward to working with the Subcommittee to take full advantage of these opportunities.

Sincerely,

The American Television Alliance

THE NEW NETWORK COMPACT

Making the IP Transition Work for Vulnerable Communities

A report commissioned by the Benton Foundation

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By Ted Gotsch

CONTENTS

THE NEW NETWORK COMPACT:
Making the IP Transition Work for Vulnerable Communities

The Benton Foundation works to ensure that media and telecommunications serve the public interest and enhance our democracy. We pursue this mission by seeking policy solutions that support the values of access, diversity and equity and by demonstrating the value of media in meeting basic human and community needs.

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EXECUTIVE SUMMARY

The nation's telephone network stands on the precipice of great change. The public switched telephone network (PSTN) and its copper-wire infrastructure is slowly being replaced in some areas with high speed networks that allows telephone service, as well as faster broadband speeds and video offerings for consumers. Eventually, all telecommunications infrastructure likely will be Internet Protocol (IP)-based. And few doubt that the IP infrastructure of the future is the better technology and the better path for the U.S. in the long run. But what will become of the tens of millions of Americans who already face hurdles in accessing existing telephone and broadband networks? How can we ensure them easy and affordable access to future networks?

In order to make certain that everyone will benefit from this complex transition, policymakers will need to take pragmatic steps to understand the opportunities and barriers; and ensure that our newest technologies continue to support some of our oldest values.

The Federal Communications Commission formed the Technology Transitions Policy Task Force and charged it with exploring the impact and opportunities of the IP transition. To maximize the benefits for all Americans and guarantee any decisions are consistent with the nation's core values, the Task Force and the Commission need to be diligent and consider a wide array of vulnerable communities that could be unfairly disadvantaged during this conversion. Depending on how this transition is done, these communities stand to benefit immensely or be disproportionately harmed. Only by fully understanding the possible pitfalls and opportunities of such a change can the FCC develop a set of "rules of the road" that will best serve all of the country's residents.

This report highlights the concerns of vulnerable communities through the eyes of the individuals and organizations who work on a daily basis with children, people with disabilities, low-income families, communities of color, rural residents and senior citizens. As an integral part of their jobs, these advocates must understand

the struggles of these vulnerable populations to help them overcome the obstacles they face. As such, they are well-suited to help the Task Force and the full FCC make better, more-informed decisions about this transition.

The Benton Foundation has identified 10 interrelated principles to help guide the transition to all-IP networks—whether they are delivered via fiber, microwave, coax, wireless or some other technology—in order to guarantee that all Americans have an opportunity to succeed using the networks of tomorrow. In sum, these principles are intended to guarantee that all Americans will have access to IP-enabled networks that are: 1) fairly priced; 2) offer a high quality of service with the capability of running essential applications; and 3) allow people—regardless of age, ability, location, or economic status—the chance to develop and share content as well as use and create new technologies.

How to get there, however, remains the grand challenge before the FCC.

TEN PRINCIPLES FOR THE IP TRANSITION

1. **Ubiquity:** Every American needs to have *affordable* access to high-speed fixed and mobile broadband networks.
2. **Accessibility:** The 54 million Americans with disabilities and other vulnerable populations must be able to make full use of broadband networks and the video and voice services that run over these networks.
3. **Diversity:** In addition to ubiquitous availability, Americans must have the ability to access and distribute content that reflects the country's diversity of viewpoints.
4. **Openness:** Consumers must retain their rights to utilize any legal applications, content, devices, and services of their choosing on the broadband networks they use.
5. **Competition:** Policies should encourage new entrants into the emerging IP-enabled network market.

6. **Interconnection:** Regulators must ensure that competing network providers are able to interconnect in areas where there is legacy market power. Subscribers must be able to reach subscribers on any other network.
7. **Trustworthiness:** As technology moves forward, *consumers must retain key protections* that ensure a fair and safe experience.
8. **Robustness and resiliency:** To ensure *public safety,* consumers need to be able to rely on networks in emergencies.
9. **Speed:** Consumers need fast networks that allow them access to and choice of a full range of services to meet their needs.
10. **Innovation:** For consumers, the promise of the IP transition is new services and ways to collaborate and communicate that are better and more advanced than current basic telephone communications.

In 1913, AT&T Vice President Nathan Kingsbury sent a letter to U.S. Attorney General George McReynolds "[w]ishing to put [the company's] affairs beyond fair criticism" of anticompetitive practices. In the letter, AT&T promised to sell its stake in Western Union Telegraph, resolve interconnection disputes, and refrain from acquisitions if the Interstate Commerce Commission objected. The letter became known as the Kingsbury Commitment. One hundred years later, AT&T seeks to retire the copper-based phone system. But the nation cannot retire the commitment Attorney General McReynolds understood to create "full opportunity throughout the country for competition in the transmission of intelligence by wire." As we embark on the IP transition, we need a new network compact for the 21st century that guarantees that the public, not just industry, benefits from the migration to digital networks.

INTRODUCTION

The nation's telephone network stands on the precipice of great change. The public switched telephone network (PSTN) and its copper-wire infrastructure is slowly being replaced in some areas with high speed networks that allows telephone service, as well as faster broadband speeds and video offerings for consumers.

There are already signs that the telecommunications landscape has changed forever. In a recent speech, Federal Communications Commissioner Ajit Pai highlighted some Federal Communications Commission (FCC or Commission) research which found:[1]

- Last year, about one in seven households with plain old telephone service delivered over copper wires dropped their landlines. Over the last four years, 33.6 million (or 43 percent) of American households with copper landlines gave them up.
- Forty-two million households subscribed to voice-over-IP (VoIP) service in 2012, about twice the number from four years earlier. Indeed, last year 43.5 percent of residential landlines were VoIP.

In addition, 95 percent of households no longer solely depend on a traditional home telephone to stay connected.[2] In all, about 34 percent of American households have cut the cord when it comes to telephone service, with more than 39 million households relying only on wireless.[3]

Given these statistics, incumbent telecommunications companies and their supporters say it makes no sense for them to sink more dollars into PSTN "legacy" networks when the future is in IP infrastructure. Of late, much attention has been focused on a petition[4] filed last year by AT&T that asked the FCC to move forward on what's being called the IP transition. The Commission is now in the beginning stages of what will be a years-long process to improve the nation's infrastructure to better suit America's 21st century communications needs.

Most observers agree that the new infrastructure could provide greatly improved services. However, many are left to wonder

whether everyone will have affordable access, whether some existing services will be degraded, whether our most vulnerable populations are prepared to take full advantage of the power of Internet Protocol (IP) networks — and how policymakers can help make that happen. The question is will critical and time-honored consumer protections and societal values currently in place be updated and extended to these networks of the future.

While the biggest telephone carriers are planning a transition to IP-enabled networks, most do not have plans in place to offer these advanced services to people in the poorest or most remote communities. Instead, the companies are rolling out services that are vastly different from what consumers are used to and pairing them in ways that consumers may not want. In some places, this means replacing today's wireline telephone network with fiber infrastructure that can offer advanced broadband speeds, voice, video and data over the same network. However, in other places—especially less-populated and less-prosperous regions—this may mean relying on less-capable, all-wireless technologies. In such areas, consumers may not join in the leap forward.[5] Any potential shortcomings must be addressed before unplugging yesterday's PSTN network, which millions of Americans currently rely upon for basic phone service. **The question is: Will critical and time-honored consumer protections and societal values currently in place be updated and extended to these networks of the future?**

New Federal Communications Commission Chairman Tom Wheeler seems to understand that everyone needs to benefit from this transition. During his first day on the job, he told Commission staff they have a big job before them. "The challenge America faces, and that this agency faces, is to secure the future through the actions of the present—by encouraging investment and innovation; preserving competitive opportunities; protecting consumers; and assuring the opportunities of the new network extend to all," he said.

First and foremost, people must have affordable access to high-speed IP networks to make the transition successful. Other countries—including developed countries such as Sweden and

Japan, as well as less-developed ones like Portugal and Russia —are well on their way to replacing their standard telephone connections with state-of-the-art fiber-optic connections that can boost speeds and lower costs to consumers.[7] America is woefully behind Azerbaijan[8], Qatar[9], South Korea, Australia[10] and many other countries that are advancing fiber-based IP networks capable of 100 megabits per second (Mbps) to every home and providing vast consumer benefits. Major commercial roll outs of fiber-based IP networks like Verizon's FiOS service, which generally serve more affluent communities, have stalled.[11] Often U.S. providers are not extending these networks to rural, poor or minority populations. The Communications Workers of America notes:[12]

- In Boston, areas without access to Verizon's FiOS service are home to 52% minority populations, compared with wealthier suburban areas with access that are home to populations that are just 23% minority.
- In Buffalo, areas without access to Verizon's FiOS service are comprised of 45% minority populations, compared with wealthier suburbs with access that are just 5% minority.

In some places, such as Hurricane Sandy-ravaged Fire Island, N.Y., Verizon attempted to deploy a service that appears to be inferior to the PSTN network. It is impossible to make a successful transition without truly high-speed IP networks.

Although there are some promising municipal and other gigabit speed IP networks being deployed that are capable of carrying high-quality voice, video and data services, American communities often lack the kind of high-speed IP networks that would most benefit consumers, thereby making the IP transition successful.

Beyond access to physical networks, the U.S. still has Internet adoption issues, and efforts to close this gap appear to be plateauing. Even though 76% of U.S. adults use the Internet at home,[13] 9% of adults use the Internet, but lack home access. These Internet users cite many reasons for not having Internet connections at home, most often relating to issues of affordability. Some 42% mention financial issues such as not having a computer, or having a cheaper option

outside the home. And, as of May 2013, 15% of American adults ages 18 and older do not use the Internet or e-mail at all.

Asked why they do not use the Internet:

- 34% of non-Internet users think the Internet is just ***not relevant*** to them, saying they are not interested, do not want to use it, or have no need for it.
- 32% of non-Internet users cite reasons tied to their sense that the Internet is ***not very easy to use.*** These non-users say it is difficult or frustrating to go online, they are physically unable, or they are worried about other issues such as spam, spyware, and hackers.
- 19% of non-Internet users cite the ***expense*** of owning a computer or paying for an Internet connection.
- 7% of non-users cited a ***physical lack of availability or access*** to the Internet.

If the IP Transition is to be successful for all Americans, then, broadband networks must be available, accessible, affordable, trustworthy, and relevant to new adopters.

For consumers, there are also a number of technological hurdles to address if the IP transition is to be a seamless one. As new FCC Chairman Tom Wheeler pointed out in a memo sent before he took charge of the agency to then-FCC Chair Julius Genachowski on stranded PSTN investments, "Many homes and businesses still use devices that depend on specific characteristics of the PSTN (e.g., auto-dialers, alarm systems, ATMs, PoS terminals)." Wheeler cautioned that "[t]hese services and devices will have to be replaced and the accompanying construction and inspection 'codes' revised."[14] In addition, under current law, consumers have many protections that guarantee them affordable access to quality telephone service no matter where they live or how much they earn. They can call whomever they want—regardless of the receiver's service company—and be confident the call will be completed. They have state regulators who represent them and are empowered to make sure local phone companies are following the rules protecting consumers.

As it stands now, while consumers can benefit from newer technologies, policymakers must answer a number of critical questions to make sure that the newest of technologies can support some of our oldest values—including basic consumer protections:

- Will consumers have access to reliable, redundant and resilient IP networks from more than one provider?
- How do we ensure that these networks will be accessible and affordable for minorities, low-income families, rural residents, people with disabilities and senior citizens?
- Will consumers have access to truly high-speed IP networks that allow for competition in voice, video and data services over those networks?
- Will consumers have barrier-free access to competitive choices for innovative new voice, video and data services over these advanced networks, even when those services directly compete with the incumbent IP provider's own offerings?

Simply put, how do we ensure that every American can benefit from advanced IP networks that are fast, open, competitive, innovative and accessible?

Top lawmakers are asking these same fundamental policy questions. "As we look to the future, we must make sure that comparable communications services are available at comparable rates for everyone in the country, no matter who they are and no matter where they live," Senate Commerce, Science and Transportation Chairman John D. (Jay) Rockefeller IV (D-WV) said at a recent hearing. "Even as networks evolve and as companies upgrade their technology, the principles undergirding decades of communications law and policy remain."[15]

The FCC's Technological Transitions Policy Task Force is currently reviewing what path the IP network transition should take. The Task Force, is making recommendations to the FCC. The full Commission will then be faced with critically important decisions.

TEN PRINCIPLES FOR THE IP TRANSITION

The Benton Foundation has identified 10 interrelated principles to help guide the transition to all-IP networks—whether they are delivered via fiber, microwave, coax, wireless or some other technology—in order to guarantee that all Americans have an opportunity to succeed using the networks of tomorrow:

1. **Ubiquity:** Every American needs to have *affordable* access to high-speed fixed and mobile broadband networks.
2. **Accessibility:** The 54 million Americans with disabilities and other vulnerable populations must be able to make full use of broadband networks and the video, voice and data services that run over these networks.
3. **Diversity:** In addition to ubiquitous availability, Americans must have the ability to access and distribute content that reflects the country's diversity of viewpoints.
4. **Openness:** Consumers must retain their rights to utilize any legal applications, content, devices, and services of their choosing on the broadband networks they use.
5. **Competition:** Policies should encourage new entrants into the emerging IP-enabled network market.
6. **Interconnection:** Regulators must ensure that competing network providers are able to interconnect in areas where there is legacy market power. Subscribers must be able to reach subscribers on any other network.
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9. **Speed:** Consumers need fast networks that allow them access to, and choice of, a full range of services to meet their needs.
10. **Innovation:** For consumers, the promise of the IP transition is new services and ways to collaborate and communicate that are better and more advanced than current basic telephone communications.

It is unclear how any of these foundational principles will be advanced by deregulation. As the FCC precedes with any IP transition trials, it should seek to advance each of these principles from the outset.

What follows are the concerns of vulnerable communities through the eyes of the individuals and organizations who work on a daily basis with children, people with disabilities, low-income families, communities of color, rural residents and senior citizens. As an integral part of their jobs, these advocates must understand the struggles of these vulnerable populations to help them overcome the obstacles they face. As such, they are well-suited to help the Task Force and the full FCC make better, more-informed decisions about the IP transition.

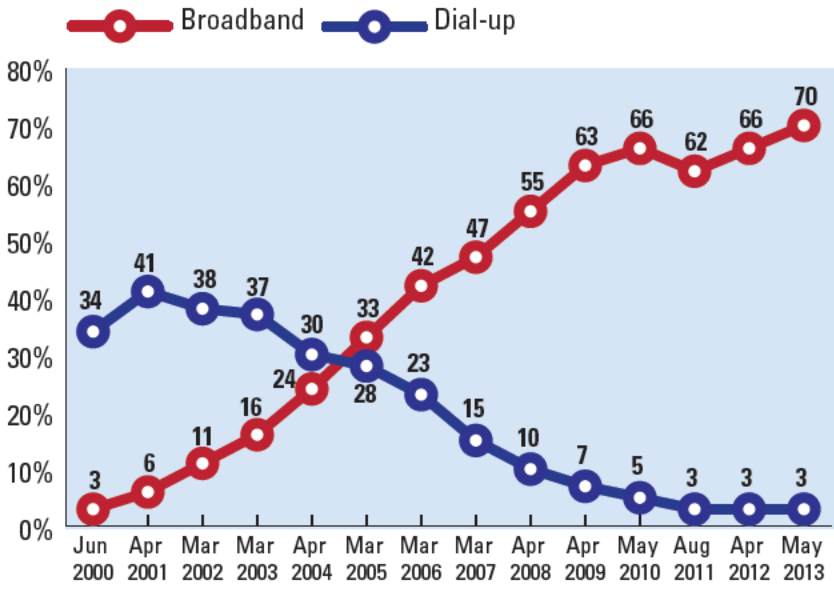
1. UBIQUITY

Every American needs to have affordable *access to high-speed fixed and mobile broadband networks.*

The idea of voice service for all has been an ideal going back to the earliest days of telephone service. Universal service was a principle of the first federal communications law, the Communications Act of 1934, and was enacted as a federal program in its current form as part of the Telecommunications Act of 1996. U.S. telecommunications law imposes an obligation on the Federal Communications Commission to take affirmative steps to provide all Americans with an equal opportunity to access broadband. The law both compels the FCC to promote ubiquitous access to broadband and to avoid steps that would undermine this goal.

Under the Communications Act, Congress directed the FCC to promote the deployment of broadband services to all Americans. In particular, in 1996, Congress stated that the FCC "shall encour-

Home Broadband vs. Dial-up



Source: Pew Research Center

age the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans."[16] Congress specifically determined that broadband offerings are included within the definition of "advanced telecommunications capability."[17]

Moreover, the law obligates the FCC to monitor the deployment of broadband and to take steps to promote broadband deployment if it is not being deployed to all Americans on a timely basis.[18] If this determination is made, the FCC "shall take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market."[19]

Likewise, Congress determined that "[i]t shall be the policy of the United States to encourage the provision of new technologies and services to the public."[20] Congress also mandated that "[a]ccess to advanced telecommunications and information services should be provided in all regions of the Nation."[21]

In February 2009, Congress reaffirmed its commitment to ensuring ubiquitous access to broadband. Under the American Recovery and Reinvestment Act of 2009 (the "ARRA"), Congress charged the FCC with developing a national broadband plan that "shall seek to ensure that all people of the United States have access to broadband capability and shall establish benchmarks for meeting that goal."[22] As the FCC has noted, the ARRA "reshaped national priorities by bringing increased intensity to the national goal of ubiquitous broadband deployment."[23] In light of the ARRA, "the nation's broadband policy goals now seek to encourage increased utilization of broadband in addition to the ubiquitous deployment of broadband facilities."[24]

The FCC has repeatedly recognized Congress's goal of promoting the ubiquitous availability of broadband and has embraced it as an agency goal as well. The FCC determined that the "[r]apid deployment and ubiquitous availability of broadband services across the country are among the Commission's most critical policy objectives." [25] The FCC also stated that its "end goal is to ensure the ubiquitous and affordable availability of broadband for all Americans." [26]

We need to make sure that every American, regardless of the zip code they live or the color of their skin, have access to truly high-speed IP networks capable of supporting voice and video communication that is more capable than the PSTN. But today, millions of American's lack IP networks at home. The kind of high-speed fiber networks we need to not only keep up with other countries seeking to out-compete us, but to deliver on the full-promise of the IP transition are not getting to the poor, minority, and rural communities that can benefit most. Thus, to ensure the IP transition succeeds, we need high speed networks that are as truly ubiquitous as the PSTN is today.

In the age of broadband, how do we make certain that IP networks are as ubiquitous as the PSTN network? The FCC spent parts of the last four years revamping all four Universal Service Fund (USF) programs to help spur the deployment of high-speed networks.

Many, however, are raising questions about how to achieve an IP future that includes all Americans. Olivia Wein, a staff attorney with the National Consumer Law Center, observed, "We are concerned about rural American and low-income communities. Is [the service] comparable or better? If it is not, we would argue it isn't ubiquitous." [27]

Edyael Casaperalta, a program associate with the Center for Rural Strategies, shared similar concerns. She noted that upwards of 96% of homes currently have voice service nationwide, but tribal communities lag far behind. Broadband access and adoption numbers in these communities are even smaller, and she worries disparities will increase significantly with the switch to IP.

"When we think about ubiquity, we think about coverage of 100%," she said. [28] But she wondered what would happen to the 19 million Americans still without access to any wired network. Will telecommunications carriers expand their infrastructure? "Will they have reason enough to serve those areas?"

There is some concern that too much of the burden will be placed on the Universal Service Fund to pay for deployment of the

broadband networks needed to ensure a successful transition. Several advocates said that program cannot do all the heavy lifting alone.

A few stakeholders do see an essential role for the USF's rural-focused program as it transitions into the broadband-focused Connect America Fund (CAF). Wally Bowen, Founder and Executive Director of the Mountain Area Information Network, said commercial providers cannot be depended on to bring upgraded networks to all. "By contrast," he noted, "the two business models used by local networks necessarily are the private nonprofit or the public/municipal." Bowen feels strongly that local nonprofit and municipal networks should be made eligible for CAF support.

He strongly emphasized the historical analogue of the rural electric cooperatives, of which more than eighty percent were private nonprofits locally owned and controlled and completely independent of any government ownership. "Indeed, for many unincorporated rural areas, there was/is NO municipal government with which to partner," Bowen said. "My fear . . . is that the public interest community is too set in its ways and will continue to fight — and lose — the wrong battle: trying to force the incumbents to serve areas which their corporate self-interest compels them to neglect,"[29] he said.

Other advocates said the deployment needed is possible using a mix of IP-enabled technologies, including wireless, that would allow for cheaper deployment to rural and the most remote areas. They insist it is not realistic to expect all Americans to have access to the same telecommunications services using IP networks when they don't have access using the PSTN or wireless networks where they live right now.

Tom Kamber, Executive Director of Older Adults Technology Services, said more stakeholders need to embrace the changes and work to reduce any negative aspects. He commented, "The issue is how do you manage a market trend like [the IP transition]. It is happening already."[30]

Some advocates think that differences among different IP-enabled infrastructures are being overemphasized. Matthew

Rantanen, Chairman of the Native Public Media board of directors, said that the Tribal Digital Village initiative that he oversees in Southern California, which uses fixed wireless, delivers 500 Mbps to its data center and up to 10 Mbps service to the 19 reservations it serves in San Diego and Riverside counties. He said it is time to stop discounting the technology. "People don't give it the chance it deserves," Rantanen said. [31] "You can make a very good deployment platform based on wireless." However, as reports out of Fire Island, N.Y., and elsewhere reveal, not all wireless IP services are created equally or capable of delivering high speeds and a full range of communications services.

Given the FCC's statutory mandates and its established priorities, the agency should closely analyze how the IP transition will impact the digital divide. By performing this analysis, the FCC will acquire the information it needs to ensure that its IP transition policies are consistent with its determination that ubiquitous access to broadband is one of the Commission's most critical policy objectives. [32] Specifically, the FCC should craft any new rules and policies in a manner that ensures, to the extent possible, that the transition will be instrumental in *closing* the digital divide.[33] The Commission should also consider the importance of focusing on broadband adoption, education and training when crafting IP transition trials and policies. The importance of adoption, barriers to adoption, and means of achieving adoption, especially among minority, multilingual and vulnerable populations, should be at the top of the agenda for negotiating a successful transition. The Commission should aim at enabling underserved populations — in particular, rural and low-income households — to acquire and make effective use of broadband service.

2. ACCESSIBILITY

The 54 million Americans with disabilities and other vulnerable populations must be able to make full use of broadband networks and the video and voice services that run over these networks.

Having telecommunications services reach all Americans is part of the solution. The FCC also has to ensure that any transition to IP networks grants all people the ability to use those services as they want. In an increasingly technology-dependent world, there are more and greater benefits available to many communities than ever before.

For people with disabilities, broadband holds tremendous potential to:

Foster Effective Communication

- *Interpreting Revolutions:* Presence of Interpreters: Remote interpreting, an innovative and effective mode of interpreting, has been developed with the assistance of high-speed communications and low-cost digital cameras. Broadband is necessary in this transaction because it provides a sharp and clear image.
- *Broadband-based Video Relay Services (VRS):* These calls connect deaf to hearing and hearing to deaf callers. They enrich daily lives because more than 80% of all Americans who are deaf have hearing parents and/or siblings, many of whom never learned to sign fluently. VRS, too, supports the participation of deaf individuals in conference calls, facilitating employment at middle and upper levels of management.
- *Peer-to-Peer Signing:* With the use of two-way broadband video, people with hearing disabilities are able communicate in a more clear and visual manner. With broadband, individuals who may not be literate in e-mail or instant messaging benefit from the visual services of peer-to-peer signing.
- *Searchable Text:* Broadband technology offers a practical solution for the large amounts of bandwidth that are required for text conversion to audio so that it can be navigated by someone who has vision impairments.

Expand Opportunities for Employment

Many people with disabilities are unable to work because of mobility issues, hearing or vision disabilities and hostile work environments that are not accommodating to the disability community. VoIP, assistive technology devices, video services and other technological advances that broadband supports expand employment opportunities and make it easier for people with disabilities to be more productive and effective in the work place. Broadband could help to generate a larger work force which would create enormous economic benefits for the United States. An increased labor force will mean higher output for the economy as a whole and fewer citizens would have to rely on entitlement and social programs for support.

Provide Substantial Health Care Benefits

As broadband services continue to evolve, their impact on the disability community and health care costs is likely to be substantial and valuable. Developments like telemedicine, which make it possible for the delivery of healthcare remotely, have a huge impact for the disability community. Specialists who are geographically removed from patients can view very high-quality images, enabling them to consult on specialized care even for rural residents who have disabilities. Some of the most effective telemedicine applications are home health monitoring and support for self-care. Health monitoring can come in the form of broadband-enabled hand-held devices that enable health practitioners to communicate with their clients at home. These devices will "conduct dialogues" with the patients, ask questions and provide health tips and reminders. In this way, doctors can monitor their patients daily and assess their need for treatment. Small portable or wearable devices are also used to automatically monitor the health of a patient and report results back to the doctor's office. In addition, patient to doctor video conferencing technologies are an effective way to save time and create independence for both patients and doctors. With high-speed video visits and remote consultation, the health professional can examine the

patient, test blood pressure, monitor medication intake and observe wound healing among a host of other services.

Improve the Quality of Life for People with Disabilities

Broadband creates communication links, connecting people with disabilities to diverse programs and services and developing important interactions with the surrounding world. Because of broadband, people with disabilities can participate in lifelong learning, independent living and increase their social interactions.

- *Lifelong Learning:* Distance learning, enabled by broadband, can fundamentally change the definition of education. Through advanced communication technologies, individuals with disabilities can earn a degree through online classes and enhance their career skills with guidance from live instructors. For those individuals with disabilities interested in other forms of lifelong learning, broadband provides a medium for self-education and personal research through assistive devices and services. Education and lifelong e-learning opportunities provide engaging mental stimulation and a sense of self-reliance. Yet, broadband is needed for valuable e-learning so that it can be conducted in various forms including video or other rich multimedia applications.
- *Independent Living:* Individuals with disabilities gain immense freedom when they have access to broadband. It enables them to live independently by supporting their daily activities and keeping them closely connected to the outside world. In addition, tele-presence, or having a "continuous window open into another space" drastically improves capabilities for independent living with the option to be online at all times.
- *Social Interaction:* Whether due to physical or environmental barriers, individuals with disabilities can be disconnected for long periods of time. With high-speed broadband access, people with disabilities could participate in online dialogues and make long-lasting friendships. Also, they could communicate frequently with friends and family in various text and video

platforms, enhancing the emotional bandwidth between loved ones. Lastly, broadband would provide individuals with disabilities the opportunity to participate more fluidly in civic activities, like attending town meetings.

Karen Peltz Strauss, Deputy Bureau Chief of the FCC's Consumer and Governmental Affairs Bureau, said that, for people with certain disabilities, the phone and Internet are a lifeline to the rest of the world. That's why access — be it video, texting or voice — is even more critical for them. "It levels the playing field for those with disabilities," she said.[34]

She also commented that the issue is a priority for the agency, noting that it has either adopted or initiated 10 rules during the past three years in an effort to implement the 21st Century Communications and Video Accessibility Act. "That reflects on the Commission's strong commitment that all Americans have access to broadband networks," she said.

Advocates for accessibility expressed concern over price, as many who might experience accessibility challenges are low-income. Everyone, whether a person with a disability, a senior citizen or a non-native English speaker, has something to gain from improved networks. However, they may need some assistance in realizing such gains. Olivia Wein of the National Consumer Law Center said it is important for the FCC to ensure that vulnerable populations have the opportunity to "enjoy the facilities many enjoy."[35]

Of course, part of ensuring accessibility will be educating different populations on the changes the IP transition may bring. Several advocates said that is especially true for seniors, who are used to using the phone they have and are less technologically inclined than other populations. As a result, these advocates emphasized the importance of including the elderly in any pilot programs that test the transition.

Part of the challenge will be teaching seniors to overcome negative preconceptions they might have about new technology. "The most important thing we can do . . . is to make sure they use elders in tests," said Tobey Dichter, Founder and Chief Executive Officer

of Generations on Line. [36] "For example, the new tablet tutorial we just developed included 30 multi-centered usability studies of older adults – producing completely unexpected results."

Explaining the process is also an important component for seniors, said Tom Kamber of Older Adults Technology Services.[37] "It is really important during the IP transition to roll out education materials," he said. "Let's roll out . . . a balanced and information-based education program to help them [i.e., older adults] understand the IP program."

There are also legitimate worries when it comes to health monitoring. These services are often dependent on the PSTN, and as residents of Fire Island temporarily found out, the infirm can be left without a way to be observed remotely if the wireline network is replaced with only a wireless one. [38]

3. DIVERSITY

In addition to ubiquitous availability, Americans must have the ability to access and distribute content that reflects the country's diversity of viewpoints.

The Commission has for many years adopted policies to promote diversity; it should continue to embrace this goal in the IP transition.

Diversity advances the values of the First Amendment, which, as the Supreme Court stated, "rests on the assumption that the widest possible dissemination of information from diverse and antagonistic sources is essential to the welfare of the public."[39] In considering media ownership regulation, the FCC has elaborated on the Supreme Court's view, stating that "the greater the diversity of ownership in a particular area, the less chance there is that a single person or group can have an inordinate effect, in a political, editorial, or similar programming sense, on public opinion at the regional level." These values do not change with the migration to digital networks. In fact, since, as FCC Commissioner Pai recently said, "[c]onvergence is now the norm,"[40] it only makes more sense to keep diversity in mind when considering information and telecommunications services. The IP transition should advance:

- *Viewpoint diversity* to make sure that the public has access to a wide range of diverse and antagonistic opinions and interpretations. The diversity of viewpoints ultimately received by the public should be increased by providing opportunities for varied groups, entities and individuals to participate in the different phases of the broadband industry.
- *Outlet diversity* to ensure a variety of independent owners control broadband outlets.
- *Source diversity* so the public has access to information and programming from multiple content providers.
- *Program diversity* to provide a variety of programming formats and content.

By advancing diversity in the IP space, the Commission will also advance its goal of broadband adoption by helping to create a service that is more relevant to people's lives.

Research has already identified diversity to be an issue in broadband adoption. Consumers of color are less likely than whites to have access to home Internet service.[41] So, especially for those individuals, access to reliable phone service remains critical – for access to health advice, social services, civic participation, employment opportunities, information, or contact with family and friends.[42]

The Internet presents an opportunity to bring together populations that are often isolated, including rural communities and seniors. Traditionally, the voices of larger audiences took precedence in the media until the creation of the Web, which offered a user-generated platform for a broader diversity of voices. The IP transition needs to ensure that continues, several advocates said.

Being able to create content is essential, Tony Sarmiento Executive Director of Senior Service America, Inc. observed, "When we talk about programs, there is an overemphasis on people consuming information and not enough on producing content," he said.[43] "Everyone needs to be able to get their message out."

A diversity of opinions and views made available via the Internet is essential for different communities to gain a better understanding of one another, said Tobey Dichter of Generations on Line. "Diversity means to understand the experiences of everyone," she said.[44] "If [policymakers] don't understand that, we are going to be in big trouble as a nation."

Many commented that Internet availability is particularly important for people who do not have daily social interactions, be it due to location, age or some other reason. Edyael Casaperalta of

Steps of local content and knowledge sharing

Creation	Preservation	Dissemination	Utilization

Source: OECD and UNESCO

Center for Rural Strategies noted that many in rural areas don't feel "well represented in national conversations."[45] Moreover, often when they are represented, it is in a stereotypical manner. She noted that the creation of an Internet news service called the Daily Yonder, for example, helps keep rural Americans informed about issues important to them.

The same is true of senior citizens, said Tom Kamber of Older Adults Technology Center. He noted his group runs www.seniorplanet.org, a New York City-based site geared towards seniors. While some of the content is geographically specific, the issues generally are relevant for older Americans everywhere. "Older adults are thriving and full of good ideas," he said. "It is an important resource for them." [46]

Web sites like that show what is possible if the IP transition is allowed to flourish, he added. "The IP transition could be [an] . . . amazing opportunity to build these long-lasting partnerships," Kamber said.

4. OPENNESS

Consumers must retain their rights to utilize any legal applications, content, devices, and services of their choosing on the broadband networks they use.

The story behind open telephone networks goes back more than 45 years, to a Texan named Thomas Carter who invented a device that extended the reach of a telephone into the oil fields so supervisors could stay in touch.[47] Since the FCC's 1968 ruling in the case known as Carterphone, consumers have been allowed to connect any legal device to the network and new technologies have flourished. Such a policy is just as essential in the age of IP as well.

If our IP networks are going to replace our analog voice, video and data networks, then they must be able to support robust voice and video competition — even if those services compete directly with services offered by the incumbent IP network provider.

Some stakeholders, however, are concerned about the future of voice and video competition with incumbents when these companies own and control both the networks and the services that run over them. They suggest the policy could be in jeopardy as a shrinking number of telecommunications providers exert their control over a significant portion of the network.

In 2012, the Department of Justice apparently opened an antitrust investigation into whether cable companies are acting improperly to quash nascent competition from online video.[48] The query included issues such as setting data caps, limits to the amount of data a subscriber can download each month. Internet video providers like Netflix have expressed concern that the limits are aimed at stopping consumers from dropping cable television and switching to online video providers. They also worry that cable companies will give priority to their own online video offerings to stop subscribers from leaving their networks.

The cable companies have shown little inclination to get out of the business of packaging television channels to become mere

conduits for other companies' data. Some major entertainment companies also have an interest in preserving the current model of television viewing because they want cable companies to take bundles of their channels, rather than just cherry-picking the most popular ones. Another issue that investigators have asked about is whether cable companies are acting anti-competitively by making viewers have a cable subscription before being able to access certain online programming.

Rules could be put in place that benefit carriers but hurt consumers, especially when it comes to choice and cost. This is a special concern of advocates who represent vulnerable populations, some of whom are banding together.

"We are going to demand an open Internet, whether it is wired or wireless," said amalia deloney of the Center for Media Justice. [49] "We are not going to stand for a second-class Internet for people of color."

The Virtuous Circle of an Open Internet

Source: Internet Society

Others agree, saying there is a need to ensure that disadvantaged communities don't get left behind due to corporate consolidation. They also said it is essential that the same policies exist for both wireline and wireless networks going forward.

In 2013, AT&T's decision to block Apple's video-calling program on its cellular network for certain customers raised the ire of consumers and public interest groups. After AT&T offered its rationale on its decision to limit video over FaceTime to customers who have signed up for its Mobile Shared Data plan, Stacey Higginbotham[50] offered two explanations. AT&T wanted to: 1) push more consumers over to its Mobile Shared Data plan; and 2) establish a precedent that would put AT&T's Wi-Fi network on the same legal footing as its cellular one, especially when it comes to network neutrality. Success in the first effort would help AT&T in the near term as it would drive people off their grandfathered unlimited plans and tiered plans, while success in the second would give AT&T more wiggle room as it fights the FCC and consumer advocates over network neutrality.

"If openness applies to one technology, it should apply to all technologies," said Cheryl Leanza of the United Church of Christ.[51] She noted FCC rules currently don't offer as much protection to wireless consumers as they do for wireline users. She is concerned that could disproportionately affect minorities, who rely on mobile devices for their Internet use more than whites. If IP wireless networks are going to be a replacement for fixed PSTN services, then we need to ensure that they have the same protections as wired IP networks in terms of openness.

Edyael Casaperalta of the Center for Rural Strategies agreed that wireless network requirements will have to be beefed up, especially if more homes and businesses in remote areas become dependent on wireless for their Internet needs. "You don't want to have a limit on where you can go because providers want to limit it," she said.[52] Casaperalta said networks have to have strong requirements regarding openness.

5. COMPETITION

Policies should encourage new entrants into the emerging IP-enabled network market.

One of the core tenants of the 1996 Telecommunications Act has been that competition enables consumers to benefit from lower prices, new services, new investment, and more innovation. In the National Broadband Plan, the FCC said, "Competition is crucial for promoting consumer welfare and spurring innovation and investment in broadband access networks. Competition provides consumers the benefits of choice, better service and lower prices."

Competition means deploying high-speed IP networks throughout the country and enabling many innovative, community-based broadband options. Policymakers should be wary of arguments that seek to advance IP networks and the IP transition merely by deregulating services at the expense of competition.

One significant concern that stakeholders have raised is that the end of the PSTN will limit the number of carriers that provide both residential and business service, especially in rural and remote areas. As the National Broadband Plan recognizes, "Building broadband networks — especially wireline — requires large fixed and sunk investments. Consequently, the industry will probably always have a relatively small number of facilities-based competitors, at least for wireline service."

If companies replace their existing copper networks with fiber or just a wireless alternative, it will reduce choice for many. Some suggested it could also limit regulatory oversight and threaten consumer rights.

amalia deloney, a senior policy director with the Center for Media Justice, said "We have seen time and time again that the monopoly and duopoly system does little for the consumer. We are very interested in seeing more networks and more choice."[53]

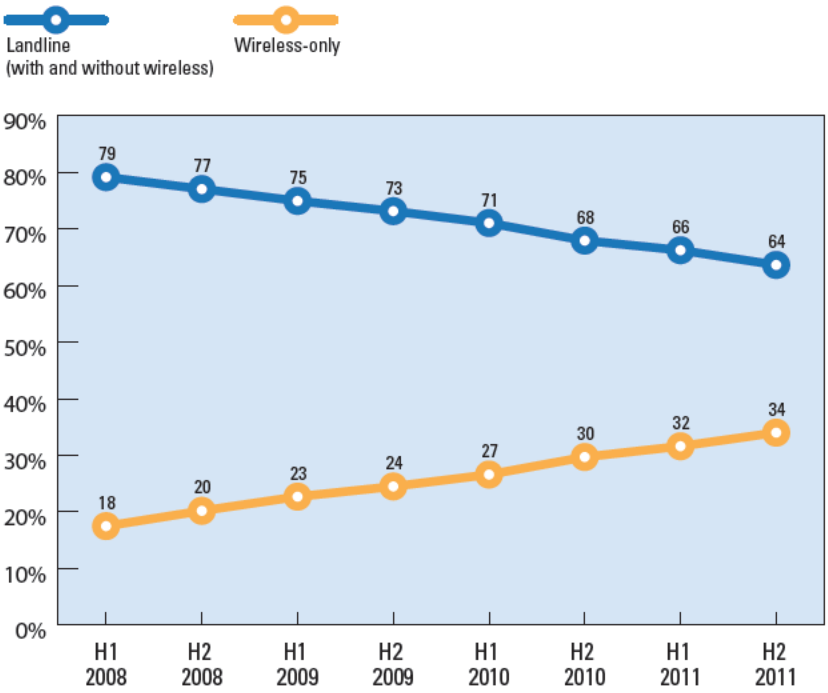
Testifying before the Senate Commerce, Science and Transportation Committee in July 2013, Jerry James, Chief Executive Officer of CompTel, which represents the competitive carrier sector,

said wireline networks are an "essential component" of the telecommunications market that must be protected for the good of business and residential consumers.[54]

Without competition, some said, there is the possibility that incumbent providers will just look at the IP transition as a way to bundle together services to sell to consumers. "Because companies are going to want to sell these new packages, they have conflicting incentives," said Cheryl Leanza of the United Church of Christ's Media Justice Ministry.[55] "The new technology should not result in the degradation of services."

If consumers are forced to buy a bundled Internet and video service, for instance, that could dissuade them from using an online video competitor such as Netflix or Hulu. And that, in turn, will hurt competition, stakeholders said.

US Household Telephone Service



Others stressed the need for rules to protect the rights of localities and public-private partnerships to build their own IP-enabled networks where local providers aren't interested in investing. Supporters of such efforts say allowing such "alternative" networks would not only bring better service, but, in many cases, lower prices for consumers.[56] Nineteen states have either placed restrictions on or stopped the building of such networks.

Matthew Rantanen of Native Public Media noted that some of the tribes served by Tribal Digital Village began to have a choice of providers about four years ago. He indicated he doesn't fear the competition because he is confident that he provides a superior service.

"If you want to create a network and you are doing it within the rules . . . you should be able to do it,"[57] he said. "I don't think there should be a restriction." He said the broadband pipe should be treated as a utility service in the future.

But rural advocates said competition is largely a dream in their areas where it is a struggle to get even one broadband provider. "The principle of 'competition' is only relevant in densely populated urban areas where market dynamics are operative," said Wally Bowen of the Mountain Area Information Network.[58] "Rural and underserved areas, by definition, lie outside the spheres of operative markets. Their lack of service is a product of market failure. Moreover, unqualified allegiance to the principle of competition obscures the true nature of the political economy in which rural and underserved exist."

As the Department of Justice describes the issue, the critical question is not "some abstract notion of whether or not broadband markets are 'competitive'" but rather "whether there are policy levers [around competition policy] that can be used to produce superior outcomes, not whether the market resembles the textbook model of perfect competition. In highly concentrated markets, the policy levers often include: (a) merger control policies; (b) limits on business practices that thwart innovation (e.g., by blocking interconnection); and (c) public policies that affirmatively lower entry barriers facing new entrants and new technologies."[59]

In addition to the consumer broadband market, to lay the foundation for America's all-IP future the FCC should foster robust competition for American businesses. This competition requires particular attention to the role of wholesale markets, through which providers of broadband services secure critical inputs from one another. Because of the economies of scale, scope and density that characterize telecommunications networks, well-functioning wholesale markets can help foster retail competition, as it is not economically or practically feasible for competitors to build facilities in all geographic areas. Therefore, as the FCC considers the IP transition, it must keep in mind how wholesale access policies affect the competitiveness of markets for retail broadband services provided to small businesses, mobile customers and enterprise customers.

6. INTERCONNECTION

Regulators must ensure that competing network providers are able to interconnect in areas where there is legacy market power. Subscribers must be able to reach subscribers on any other network.

In U.S. telecommunications law, interconnection is defined as "the linking of two networks for the mutual exchange of traffic."[60] FCC Chairman Wheeler recently described Internet interconnection this way: "The Internet . . . it is a collection, not a thing. It is the 'Inter' net, short for its original description, 'Internetworking,' because multiple open, disparate networks exchange information seamlessly. ***Absent the interconnection of the parts of the collective we call the Internet there is no Internet."***[61] Chairman Wheeler went on to insist that ensuring "the Internet exists as a collection of open, interconnected facilities is a highly appropriate subject" for federal regulators.

An IP transition that enables competition simply won't be able to occur if competitors are unable to interconnect in areas where there is legacy market power. In addition to physical interconnection of IP networks, to make the IP transition successful, voice traffic needs to be exchanged in an IP format (Session Initiation Protocol, or SIP, format). All incumbent PSTN providers need to begin exchanging their traffic in native SIP formats.

As noted earlier, interconnection has been a huge public interest concern for at least a hundred years and was a main tenant of the 1913 Kingsbury Commitment. Rules governing the ability of a caller who uses one service provider to be connected with the subscriber of another carrier were also put in place both as part of the 1934 Communications Act and the 1996 Telecommunications Act.[62] Without these rules, large providers would rule the market and competition would be severely impaired.[63]

In 2012, the FCC's Technological Advisory Council (TAC) examined the issue of VoIP interconnection and concluded that, although "VoIP Interconnect[ion] is happening all over the world, at a rapid rate," implementation in the United States has been "delayed" aside from the efforts of some cable companies and competitive

local exchange carriers (CLECs).[64] AT&T instigated a firestorm with non-incumbent carriers as well as industry stakeholders when it stated to the FCC that legacy rules should be removed as part of any IP transition.[65] While incumbent providers like AT&T might argue the system can continue using voluntary agreements between parties, smaller carriers, advocates and some state regulators have significant concerns about such a system.

A blog post by Kathleen Ham, T-Mobile's Vice President of Federal Regulatory Affairs, summed up the feelings of many on the topic:[66] "Because no telecommunications network can stand entirely on its own – on the simplest level, one carrier's customer must be able to call another carrier's customer – deregulating, as these largest carriers suggest, would be devastating to competition and consumers. It would also undermine the very efficiency and reliability purposes of converting to 21st century technology."

The importance of interconnection was also raised during a July 2013 Senate Commerce, Science, and Transportation Committee hearing, where several of those testifying said it is essential that callers be able to contact each other regardless of provider or technology. Absent that, the nation's communication system in the age of IP-to-IP calls would fail.

"As the PSTN transitions to new physical facilities and IP protocols, it is critical to the competitive future of the market that the law and rules ensure carriers will continue to interconnect and rules will continue to promote competition in the marketplace to the benefit of consumers," stated Gigi Sohn, then Public Knowledge's President and Chief Executive Officer in her Senate testimony.[67]

Those representing vulnerable populations agreed. "If there is no requirement to interconnect with a network, then a small provider can't connect with a larger provider," said Edyael Casaperalta of the Center for Rural Strategies.[68] "Interconnection and competition go hand-in-hand because you need to make sure policies encourage competition."

Interconnection, observed amalia deloney of the Center for Media Justice, ensures that everyone will be able to communicate

and participate in society. "This is a vital infrastructure, like water, like roads and electricity," she said.[69]

One way to solve the issue would be to declare voice-over-IP a telecommunications service. John Burke, a member of Vermont's Public Service Board and chairman of the National Association of Regulatory Utility Commissioners' committee on telecommunications, urged the FCC to do so and bring regulatory certainty to the issue instead of moving forward with trials.

"An FCC-blessed 'real-world VoIP interconnection trial' will not help the Commission clarify the statutory basis for incumbent LECs' [local exchange carriers'] duty to provide VoIP interconnection," he testified during an October 2013 House subcommittee hearing.[70] "That clarification begins and ends with an interpretation of the statute."

7. TRUSTWORTHINESS

As technology moves forward, consumers must retain key protections *that ensure a fair and safe experience. This includes, but is not limited to, consumer protections like privacy, truth-in-billing, blocking unwanted solicitation and preventing cramming and slamming.*

Consumer protections are largely seen as being built into the PSTN. Will they continue under IP networks?

Part of the issue, said Olivia Wein of the National Consumer Law Center, is that consumers will have the expectation that their protections — whether it's stopping unwanted calls and unsolicited charges or "truth-in-billing" provisions that warn consumers about escalating monthly wireless bills — remain the same. Since the average person has no idea about the underlying network, they will be befuddled by any change. She said there needs to be "a solid and consistent" regulatory regime in place. "If companies don't like that, maybe they should go into a different business," she said.[71]

Advocates for children and senior citizens are especially concerned about a possible loss of regulations that could compromise these vulnerable populations. Curbing of online predators that operate financial scams against the elderly or threaten children is key to ensuring people feel safe to participate in the IP transition.

"Children are going to be online more and . . . want to know what is happening," said Eileen Espejo, Children Now's Director of Media and Health Policy.[72] "Parents especially need to be educated on how to protect their children's privacy."

Tobey Dichter of Generations on Line agreed. "You can't make assumptions that people understand these terms," she said.[73] Just creating an online registry to prevent scamming, for example, is not a solution for elderly populations. "Don't assume everyone is going to sign up online," she stated. "That population is really not [going to sign up online], especially [lower income seniors]."

Tom Kamber of Older Adults Technology Services stressed the need to inform the public about any rule changes that govern online behavior in an all-IP world. He calls for a balance of education and

regulation to maximize the benefits of new technology and believes it would be useful to look for new ways to enforce existing laws to reduce criminal activity. For example, he noted New York has prosecuted those who target the elderly in financial schemes using the Internet under hate crime laws.[74]

In addition, concerns have been expressed that states will lose their ability to oversee consumer protection resulting from the switch to IP-enabled networks. While a report by the National Association of Regulatory Utility Commissioners emphasizes that the 1996 Telecommunications Act ensures that state regulators have a role to play in overseeing telecommunications services,[75] states have seen their role diminish as the FCC has moved to a more limited and centralized regulatory scheme.

8. ROBUSTNESS AND RESILIENCY

To ensure public safety, *consumers need to be able to rely on networks in emergencies.*

The universal service concept has, perhaps, most frequently been promoted as a way to ensure that all Americans have a way to contact the authorities in the event of an emergency to preserve life and limb. And, so, when it comes to using the telephone or any telecommunications service, a basic question is whether it will work.

The PSTN, renowned for its reliability for both making and receiving calls, is powered internally so that it can continue operating even when power is lost for days. Moreover, it steers first responders to the address from which a call is made. The same can't always be said for wireless or fiber-based networks that have battery backup, which often only lasts for hours before failing.

Karen Peltz Strauss of the FCC notes that several of the public safety changes made in recent years are rooted in concerns expressed by the disability community. She stated that the requirements to ensure accessible televised emergency announcements and efforts to implement text-to-911 access are two examples that have been strongly advocated for by those with disabilities. Of course, these requirements have practical uses for all people.

"In some ways the needs of the disability community are helping pave the way to how we evolve to next generation 911, which is broadband networks," she said.[76] Peltz Strauss is hopeful that the IP transition will not lose sight of the need for such access. "When people put their heads together, they find accessibility solutions. If you put the engineers on it, they find solutions."

Advocates for people with disabilities, seniors and those living in rural areas identify public safety as a top concern for the populations they serve, and they raise questions about whether IP networks would function during disasters, noting that when it comes to emergency situations, wireless networks, in particular, aren't as accurate at pinpointing a location as a phone using the PSTN. Several stressed the need for the FCC to enact stricter laws to make sure those in danger can be found when they place a call to 911.

What Voice Link Doesn't Do That Copper Does

Questions	Traditional Copper Phone Service	Verizon Voice Link
Will 911 work during congestion?	✓	✗
Will medical alerts work?	✓	✗
Does it provide access to broadband?	✓	✗
Will home security systems work?	✓	✗
Does credit card processing work?	✓	✗
Can you make international calls (without a separate international calling plan)?	✓	✗
Will you be able to use calling cards?	✓	✗
Will you be able to receive collect calls?	✓	✗
Will you be able to make a local call without an area code?	✓	✗
Will fax machines work?	✓	✗

Source: Public Knowledge

Edyael Casaperalta of the Center for Rural Strategies said there cannot be any reduction in the current rules for wireline networks and that access to public safety must remain available before, during and after an emergency. It is especially important in rural areas. "[In remote areas], you need to have a reliable network. It is not a chance you can take," she said.[77] "It is one of the biggest issues with the IP network out there."

There is also a question about ease of use. Tony Sarmiento, at Senior Service America, Inc., worries that service issues can't easily be addressed by the elderly. He noted that during a recent call to Verizon about his FiOS service, a technician asked Sarmiento to get on his hands and knees to access the installed Verizon box to follow instructions to resolve the issue.[78] "I can't imagine all older people being able to do it," he said.

Others said while all IP-enabled networks won't be able to rep-

licate exactly what's available on the PSTN today, that doesn't mean they won't be able to provide a high level of service that can ensure the safety of all Americans. Tom Kamber of Older Adults Technology Services said there shouldn't be "fear mongering" when it comes to IP technology changes, and that soliciting input from a working group made up of stakeholders could prove helpful. "This is a transparency issue,"he said.[79] "I don't think Verizon or AT&T wants to roll something out where they have a problem."

Matthew Rantanen of Native Public Media also expressed confidence in the resiliency of wireless-based service during natural disasters, arguing that the wireless network is more dependable because it can be brought back online quicker than wired alternatives (e.g., by running on propane or even solar if the power goes out).[80]

FCC Chairman Tom Wheeler has noted that we need new metrics to measure broadband network quality if we are to successfully transition to IP networks arguing that "developing metrics beyond throughput speed to measure the quality of Internet Protocol (IP) broadband networks is important for helping the IP ecosystem flourish."[81] He added, "Simply measuring broadband networks by throughput speed does not provide a full picture nor set sufficient performance parameters to support uses with 'extended' quality requirements such as healthcare monitoring, emergency services, alarms, etc." In addition, Wheeler argues that "in transitioning to IP-based networks . . . [we need to be] identifying how reliability can be characterized in a multi-modal environment — where reliability is provided by having many alternate paths, means and/or modes of communications. The FCC should initiate the steps necessary for determining how this aspect of the transition will impact the basic architecture of emergency services."

More recently, Chairman Wheeler identified public safety and national security as the third component of what he calls the Network Compact.[82] "Our networks must continue to be the safety backbone during an emergency," he stressed. "We must have the ability to summon emergency help, to coordinate an emergency response, and to do so via a network that is as secure as possible from cyber attacks."

9. SPEED

Consumers need fast networks that allow them access to, and choice of, a full range of services to meet their needs.

In replacing the PSTN, consumers need truly high speed networks with low-latency and jitter so that these networks are capable of fully supporting legacy PSTN services like faxing, modems, and text telephone (TTY) services that are sensitive to network quality.

All stakeholders we spoke with agreed that people want fast networks. That said, the issue of equity when it comes to Internet speed is a strongly held value among many advocates. Their stance relies on language going all the way back to the 1934 Communications Act that addresses access to similar services no matter where subscribers reside. The issue is complicated, however, and technically challenging.

Although progress is being made in increasing the speed of transporting data over wireless-based networks, most areas are still a work in progress. More and more people, led by communities of color, are relying on smartphones as their main connection to the Internet – most often because of cost.[83] On top of that, rural areas will become increasingly dependent on the technology as people in remote areas see their old wired networks retired and replaced by wireless. Given that reality, how should the FCC proceed? "There should be some standards on issues of fairness and equity – this isn't just about leveling the playing field rhetoric. It's about actually addressing preexisting disparities with real world consequences," said amalia deloney of the Center for Media Justice.[84] She noted that most people have no idea of what their Internet speed is or what they are supposed to receive.

Some advocates believe that given the growing use of the Internet for academic purposes as well as testing, the FCC should be forward-thinking. "As a goal, we should aim high," said Olivia Wein of the National Consumer Law Center.[85] "If we don't expect excellence, we are not going to see it. We should demand it." She said students should be able to access needed materials no matter

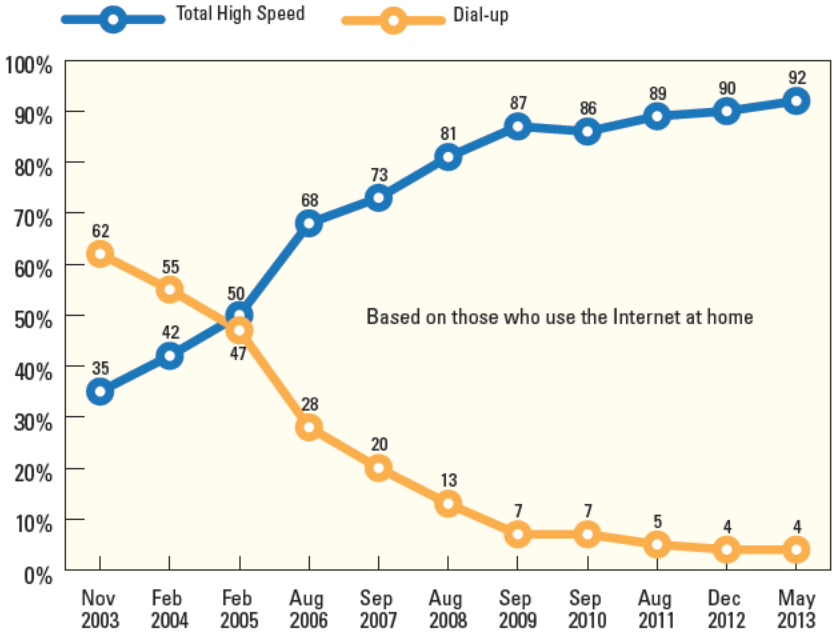
where they live. If they can't, she said, "It will have huge, damaging ramifications."

Matthew Rantanen of Native Public Media agreed. As a member of the San Diego Broadband Consortium, he has looked at minimum speeds needed for educational purposes and believes that educational information should guide any speed standards set as part of the IP transition. "If a learning tool needs 5 megabits, [the minimum speed] should be 5. If it is 10, it should be 10,"he said.[86] However, as reports out of Fire Island, N.Y., and elsewhere reveal, not all wireless IP services are created equally or capable of delivering high speeds and a full range of communications services.

Speed is not just important for learning, however. For people with disabilities, faster networks allow them to communicate more effectively and efficiently using the latest technology. "Anyone who relies on broadband as their primary communications vehicle will want speed," Karen Peltz Strauss of the FCC stated.[87]

And while some may think seniors don't have a need for faster Internet, that is just not the case, said Tom Kamber of the Older Adults Technology Services. "You could argue seniors aren't using high-speed bandwidth right now," he said.[88] "But the older adults we are getting online are flooding to the social media sites or the video sites."

US Household Telephone Service



Source: Pew Research Center

10. INNOVATION

For consumers, the promise of the IP transition is new services and ways to collaborate and communicate that are better and more advanced than current basic telephone communications.

High-quality networks across the country will ensure that people in all communities have the ability to create, invent, and use products and services that can enhance our world. Broad access to high speed IP networks is essential to making sure technology continues to evolve. Just as important, however, is ensuring that a regulatory regime is in place that allows development of the next big thing to continue unabated.

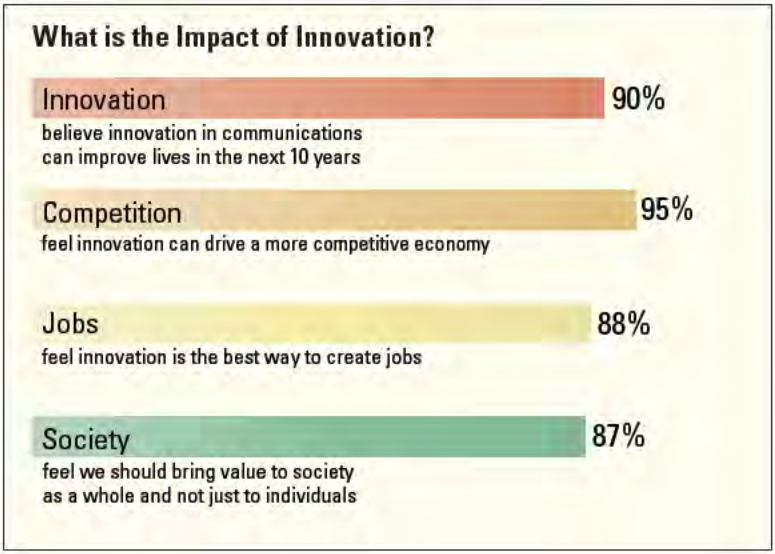
Some in Washington seem to recognize the issue. Rep. Greg Walden (R-OR), Chairman of the House Communications and Technology Subcommittee, said during an October 2013 hearing that a real balancing act is needed to get the IP transition right. "We must strike the appropriate balance between protecting consumers, promoting competition and not slowing the pace of needed innovation," he said.[89]

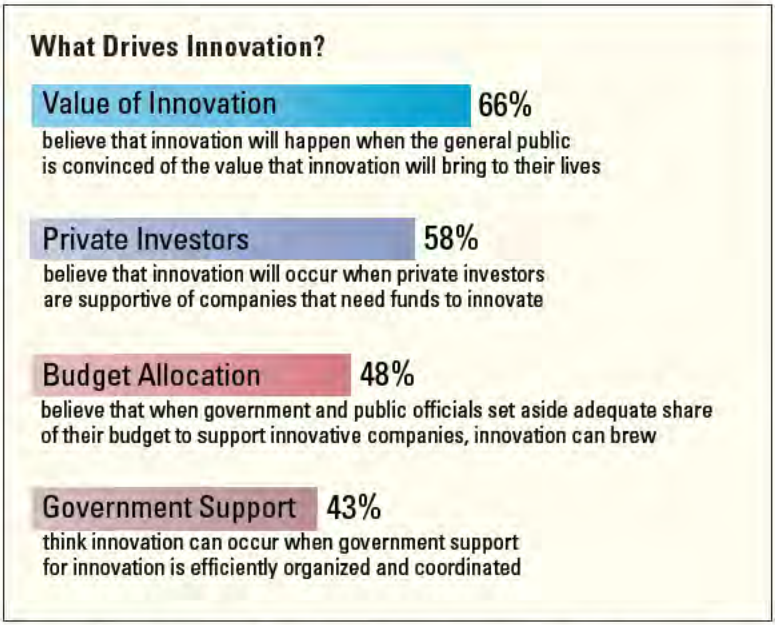
FCC Commissioner Jessica Rosenworcel said in a speech late last year that regulators need to demonstrate some "humility" when they make decisions and "respect the power of innovation to, without warning, alter what we think we know."[90]

As the FCC's Technology Transitions Policy Task Force recognizes, VoIP interconnection could actually unleash innovation making available new services and features such as high definition (HD) audio, additional video and text media formats, and secured caller ID.[91]

Edyael Casaperalta of the Center for Rural Strategies said creative minds in the industry will be curbed and consumers won't be able to benefit from future developments in telemedicine and other applications if access to infrastructure is restricted. "We want to have access to these networks so we can continue to innovate," she stated.[92]

The loss of the PSTN would take away a vehicle that many competitive carriers have used to kick start new technologies since





Source: Independent survey of 1000 senior business executives across 12 countries

incumbent wireline providers are required to lease the network out to other providers. Fiber and licensed wireless networks have no such requirements, which might make it more difficult for innovators to create. This explains why some stakeholders believe that new requirements for IP networks will be needed to ensure continued technological innovation. A lack of innovation could result in fewer providers in the market and higher prices for consumers. "Competition is key and innovation is key . . . to drive the price down," said Matthew Rantanen of Native Public Media.[93] "If you only have one player in town . . . whatever they decide to do, you don't have a choice."

CONCLUSION

The IP transition promises improved communications networks, but can it ultimately deliver? To successfully negotiate the transition, the FCC must include a broad set of stakeholders in the process and their concerns need to be taken into account.

The initial efforts by some telephone companies to replace their traditional wireline telephone service have not been encouraging. Residents of Fire Island, N.Y., for example, rebelled against Verizon's efforts to end wireline service and provide residents and businesses on the resort island with only its wireless VoiceLink product. After months of protest, Verizon relented and announced it would install a fiber network to replace the copper one that was damaged by Hurricane Sandy the year before.

That failed experiment shows the potential pitfalls that could emerge from this transition. Replacing the PSTN with a network that isn't as good as the infrastructure it is supplanting is not progress and is unacceptable. Creating standards that improve offerings and opportunities for all Americans must be a requirement of the IP transition.

For decades, America's telecommunications network was the envy of the world because of, not in spite of, regulation. What's not needed now is deregulation, but smart policy choices that ensure our societal values – the public interest – remain embedded in the networks of tomorrow.

FCC Chairman Wheeler calls these policy choices the Network Compact,[94] the basic rights of consumers and the basic responsibilities of network operators. As conveyed here, to ensure the benefits of broadband reach all Americans, especially those most at risk of being harmed in the transition, **we need a new compact for these new networks. The compact must encompass ubiquity, accessibility, diversity, openness, trustworthiness, robustness, resiliency, and speed. The compact must embrace competition and interconnection so the networks and the services provided over them continue to evolve and innovate.**

In December 1913, AT&T Vice President Nathan Kingsbury sent a letter to U.S. Attorney General George McReynolds "[w]ishing to put [the company's] affairs beyond fair criticism" of anticompetitive practices. In the letter, AT&T promised to sell its stake in Western Union Telegraph, resolve interconnection disputes, and refrain from further acquisitions of independent telephone companies if the Interstate Commerce Commission objected. The letter and the promise to address concerns about competition became known as the Kingsbury Commitment. One hundred years later, AT&T seeks to retire the copper-based phone system. But the nation cannot retire the commitment Attorney General McReynolds understood to create "full opportunity throughout the country for competition in the transmission of intelligence by wire."

Ensuring "competition in the transmission of intelligence by wire" is even more crucial in 2013 and beyond. As Chairman Wheeler recognizes, "the new information networks are the new economy. Earlier networks enabled ancillary economic activities . . . what today's new networks haul isn't an input to a product, it is the product itself. Our growth industries are today based on the exchange and use of digital information. As such, information networks aren't ancillary; they are integral."[95]

As we embark on the IP transition, we need a new network compact that guarantees that the public, not just industry, benefits from the migration to digital networks.

No one can be left behind in this great movement away from the PSTN. That means all children can use the new networks for learning, all seniors can access health services and information and all adults can look for jobs or start a business using them. The nation's future depends on it. How can we truly say the U.S. offers opportunity for all if the 21st century's main knowledge tool isn't available for everyone?

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17. 47 U.S.C. §1302(d)(1) ("The term 'advanced telecommunications capability' is defined . . . as high-speed, switched, broadband telecommunications capability . . . .").
18. See 47 U.S.C. §1302(b) (stating that "the Commission shall determine whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.").
19. 47 U.S.C. §1302(b). The legislative history underlying Section 706 confirms Congress's intent regarding the Commission's obligation to promote the ubiquitous availability of broadband. The Joint Conference Report provides that the Commission – as part of its obligation to monitor whether advanced broadband offerings are being deployed to all Americans – "shall include an assessment . . . of the availability, at reasonable cost, of equipment needed to deliver advanced broadband capability. If the Commission makes a negative determination, it is required to take immediate action to accelerate deployment." H.R. Conf. Rep. No. 104-458, at 210 (1996) (emphasis added), reprinted in 1996 U.S.C.C.A.N. 10.
20. 47 U.S.C. §157(a). Broadband is certainly a new technology or service within the meaning of the statute.

21. 47 U.S.C. §254(b)(2).
22. American Recovery and Reinvestment Act of 2009, §6001(k)(2), Pub. L. No. 111-5, 123 Stat. 115 (2009).
23. Sixth Section 706 NOI ¶13, n. 43.
24. Sixth Section 706 NOI ¶46; see also ARRA §6001(k)(2)(B), (D) (declaring that the National Broadband Plan shall include "a detailed strategy for achieving affordability of such service and maximum utilization of broadband infrastructure and service by the public" and "a plan for use of broadband infrastructure and services in advancing consumer welfare, civic participation, public safety" and a number of other national purposes); see also ARRA §6001(b)(5) (declaring that one of the purposes of the Broadband Technology Opportunities Program is to "stimulate the demand for broadband"). Underscoring the importance of broadband and Congress's commitment to achieving ubiquitous access to broadband, the ARRA provides up to $7.2 billion in broadband stimulus funds to accelerate the deployment of broadband infrastructure and services throughout the nation.
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ACKNOWLEDGMENTS

Authored by Ted Gotsch
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January 31, 2014

The Honorable Fred Upton
Chairman
Energy and Commerce Committee
U.S. House of Representatives
Washington, DC 20515

The Honorable Greg Walden
Chairman
Communications and Technology Subcommittee
U.S. House of Representatives
Washington, DC 20515

Dear Representatives Upton and Walden:

Broadband for America (BFA) is dedicated to ensuring every American citizen has high quality access to the Internet, and promotes well-informed public policy choices to create the right incentives for the private sector to build advanced networks and offer innovative services throughout the nation. Our members include national and state-based community organizations, education and medical professionals, religious and minority groups, and stakeholders in the broadband Internet industry.

BFA appreciates the Committee's call for "a broad, open conversation about the successes and failings of the Communications Act."[1] We welcome the opportunity to contribute to this discussion and address the important questions posed in the White Paper.[2] Specifically, BFA offers the following principles to help shape the dialogue around a potential new policy framework:

1. The objective of these principles is to enhance the lives of our citizens and strengthen our economy by fostering consumer choice and private sector investment and innovation in an Internet ecosystem that is robust, accessible, universal, and open.

2. Public policy must treat every business participating in the Internet ecosystem in a consistent manner.

    - Every participant across the Internet ecosystem must have the freedom to innovate and invest without permission or ex ante regulation.

    - No ex ante rules should be adopted absent a demonstrated and enduring market failure.

3. Competition policy must account for the dynamism of the Internet.

    - Competition occurs throughout the Internet ecosystem, among its myriad components and among "vertical" platforms of integrated components, and competitive shifts occur constantly, rapidly, and unpredictably.

    - Ex post rules and approaches should be preferred over ex ante rules, and the latter should require demonstrated market failure or evidence that the benefits far exceed the costs.

---

[1] Reps. Fred Upton and Greg Walden, A #CommActUpdate to Promote Innovation and Economic Growth, Broadcasting & Cable (Jan. 9, 2014), http://www.broadcastingcable.com/blog/bc-dc/commactupdate-promote-innovation-and-economic-growth/128361.

[2] House Communications and Technology Subcommittee White Paper, Modernizing the Communications Act (Jan. 8, 2014), http://energycommerce house.gov/sites/republicans.energycommerce.house.gov/files/analysis/CommActUpdate/20140108WhitePaper.pdf.

- Deployment of broadband will enhance competition across the Internet ecosystem, further obviating the need for regulation.

4. To the extent that government regulation is required, it must be smart and consumer-focused.

    - A global Internet cannot be subject to balkanized regulation. In the U.S., all policies governing the Internet ecosystem should be at the federal level.
    - Technological differences are not an appropriate basis for regulatory or jurisdictional distinctions.
    - Any rules intended to advance social responsibilities must be borne equitably by all relevant participants in the Internet ecosystem.
    - With regard to legacy communications services regulation, rapidly changing competitive dynamics, and the realities of an IP ecosystem make it essential to revisit the purpose and role of those rules.
    - Regulatory barriers that impede sunset of legacy services and transition to IP networks and services must be eliminated.
    - Legacy rules should presumptively not apply to the Internet ecosystem. Any rules governing IP-based services must be narrowly targeted to achieve critical responsibilities, independently justified as necessary, and applied in a consistent manner across the Internet ecosystem.

5. The legitimate rights and interests of all Internet stakeholders – including the protection of free expression, the security and integrity of networks, privacy, and intellectual property – should be recognized and preserved through policies intended to promote good digital citizenship.

6. Public policy should embrace the highly successful model of dispersed Internet governance conducted through multistakeholder organizations. Government authorities should seek to defer to these organizations for Internet governance and the resolution of important issues to the greatest extent possible.

Sincerely,

John Sununu
Honorary Co-Chairman

Harold Ford, Jr.
Honorary Co-Chairman

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Subject: Communications Act

Date: Thursday, January 9, 2014 at 9:06:20 AM Eastern Standard Time

From: Brandon Bourgeois

To: CommActUpdate

Hi,

My name is Brandon Bourgeois and I have an issue that may or may not fall within the jurisdiction of the Communications Act.

As telecommunications technology has greatly expanded in the past decade, one issue that has been problematic for me and for others has been reliable access of high speed Internet. I live in Mr. Upton's district, and I am located at the end of a dead end road. I have no access to cable television or cable Internet. My only option is to use the satellite Internet company HughesNet, whose service I have found to be mediocre at best, and whose prices are outrageous compared to that of other companies.

Comcast has service running nearby, and they even installed cable halfway down my street after we were already living there, but declined to run the cable the entire length of the road. We would love access to high speed Internet, but the lack of competition (or the lack of willingness of carriers to provide us) has caused this to be delayed. And although my house is located in rural land, I can drive ten minutes and be in a busy suburban, commercialized area, so I'm really not just in the middle of nowhere.

In fact, this has been such a problem, that it was something our township supervisor (Robert Benjamin, Milton Township, Cass County, Michigan) made one of his 15 priorities to address when he was elected in 2009, and this was the only issue that he was unable to solve, even after years of trying to negotiate with Internet Service Providers.

A local company made an offer last year to provide Internet to the township. However, little of their proposal focused on installing secure cable wiring and instead installing a small antennae on each home's roof to receive a signal from a local tower. This is not exactly the solution I am looking for. Cable wire would provide the fastest, most secure, and most reliable connection.

Access to high speed Internet is becoming more and more of a necessity for Americans. My father does work from home and needs a reliable connection. If the Internet is out, he simply can't work. Students need a fast, reliable Internet connection to complete projects for school to access good resources online. Even though schools and public libraries may offer their computers and Internet services, there should not be a gap between those who have and those who have not high speed Internet access.

However, I am not sure if the Communications Act is the statue where dealing with this issue would be most appropriate. Back in 2001 Congress looked at this issue and dealing with it received strong bipartisan support, though I'm not sure if anything came of it. The Broadband Internet Access Act of 2001 (H.R. 267, S. 88, 107th Congress) was well-supported but it was not reported from committee and did not receive floor action in either chamber.

Having read the bill, I think that enacting it would be a good idea, with some tweaks to reflect the changes that have occurred since 2001, particularly those relating to the faster speeds of broadband today. I also think it would be a good idea to issue a tax credit for companies, including Internet Service Providers, or those companies which install the physical cable systems, against the cost of providing that installation, as it will be a benefit to those living in that area, both now and in the future.

Perhaps the Rural Electrification Act of 1936 would be a more appropriate place to address parts of he issue I've outlined above, as I realize that yet another possibility that has emerged is to actually provide high speed broadband service over power lines. It is my understanding that many states out west use this method to provide broadband services to sparsely populated rural areas.

One area that probably would be mostly addressed by the Communications Act is the lack of competition that I've noticed, not only in the initial choices of providers and those willing to offer broadband access on my street, but I also have a fear that if the proposed company, or any company, came through to provide broadband access, either via wireless antennae, or via electric cable, that they might go belly up and not be able to complete their project, or go out of business some time later. I'm also concerned that a giant like Comcast might just come through after all their hard work of installing the means for broadband access, and buy out all their work, leaving Comcast as our provider, even if they weren't willing to foot the bill earlier to provide us with broadband access.

I hope these concerns and comments will help you better understand this issue I have been facing, and how amending the Communications Act, if appropriate, may help resolve it. I will also be sending a copy of this to Chairman Upton. If you have any questions please do not hesitate to contact me at this email address.

Brandon Bourgeois
Niles, Michigan

January 30, 2014

Chairman Fred Upton
Energy & Commerce Committee
United States House of Representatives

Dear Chairman Upton:

As you and Rep. Walden recently acknowledged, U.S. communications law needs updating to remove accumulated regulatory excess and to strengthen market forces. When the 1934 Communications Act was passed, there was a national monopoly telephone provider and Congress's understanding of radio spectrum physics was rudimentary. Chief among the Communication Act's many flaws was giving the Federal Communication Commission authority to regulate wired and wireless communications according to "public interest, convenience, and necessity," an amorphous standard that has been frequently abused. If delegating this expansive grant of discretion to the FCC was ever sensible, it clearly no longer is. Today, eight decades later, with competition between video, telephone, and Internet providers taking place over wired and wireless networks, the public interest standard simply invites costly rent-seeking and stifles technologies and business opportunities.

Like an old cottage receiving several massive additions spanning decades by different architects, communications law is a disorganized and dilapidated structure that should be razed and reconstituted. As new technologies emerged since the 1930s—broadcast television, cable, satellite, mobile phones, the Internet—and upended existing regulated businesses, the FCC and Congress layered on new rules attempting to mitigate the distortions.

Congressional attempts at reforming communications laws have appeared regularly ever since the 1996 amendments. During the last such attempt, in 2011, the Mercatus Center released a study discussing and summarizing a model for communications law reform known as the Digital Age Communications Act (DACA). That model legislation—consisting of five reports released in 2005 and 2006—came from the bipartisan DACA Working Group. The reports addressed five areas:

1. Regulatory framework;
2. Universal service;
3. Spectrum reform;
4. Federal-state jurisdiction; and
5. Institutional reform.

The DACA reports represent a flexible, market-oriented agenda from dozens of experts that, if implemented, would spur innovation, encourage competition, and benefit consumers. The regulatory framework report is the centerpiece recommendation and adopts a proposal largely based on the Federal Trade Commission Act, which provides a reformed FCC with nearly a century of common law for guidance. Significantly, the reports replace the FCC's misused "public interest" standard with the general "unfair competition standard" from the FTC Act.

Despite the passage of time, those reports have held up remarkably well. The 2011 Mercatus paper describing the DACA reports is attached for submission in the record. The scholars at Mercatus are happy to discuss this paper and the cited materials below—including the DACA reports—further with Energy & Commerce Committee staff as they draft white papers and reform proposals.

Thank you for initiating discussion about updating the Communications Act. Reform can give America's innovative technology and telecommunications sector a predictable and technology-neutral legal framework. When Congress replaces command-and-control rules with market forces, consumers will be the primary beneficiaries.

Sincerely,

Brent Skorup
Research Fellow, Technology Policy Program
Mercatus Center at George Mason University

RESOURCES

Digital Age Communications Act (DACA) Working Groups Reports, available at http://www.pff.org/daca/reports.html.

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No. 11-44
November 2011

WORKING PAPER

THE CONTINUING CASE FOR SERIOUS COMMUNICATIONS LAW REFORM

By Raymond L. Gifford

MERCATUS CENTER
George Mason University

The Continuing Case for Serious Communications Law Reform

Raymond L. Gifford

Communications law reform is like Brigadoon. It appears periodically, presents a gauzy vision of a better, more logical and sensible communications world, and then recedes into the mists, only to reappear again after a suitable interval. Lacking a book and lyrics by Lerner and Loewe, communications law reform might not make for quite as compelling a revival as Brigadoon, but it continues to reappear as a topic for the FCC chairman,[1] think tanks,[2] and Congress to discuss,[3] even if it gets sent into hibernation by more pressing topics like mergers, net neutrality, or the latest indecent utterance or image broadcast on the airwaves. Nevertheless, a high-level consensus exists between progressive and free-market groups, the regulators and the regulated, that we need *some* reformation of the FCC and communications law, even if there is not agreement on the substantive details. If reform is not going to disappear again into the mists, then substantive proposals need to be brought forward, or, in the case of this paper, dusted off.

FCC reform has again pushed its way onto the stage, though perhaps not center stage. The House Commerce Committee, led by Communications and Technology Subcommittee Chairman Greg Walden, is proposing reforms at the FCC: more rigor and time limits in its processes, the use of cost–benefit analyses, and the curtailing of duplicative merger reviews with "voluntary" commitments. Despite these proposals, the current discussion surrounding reform accepts many of the legacy categories, methods, and assumptions of 1934 telecommunications law.

While FCC reform is necessary and salutary—even in the smaller ways currently being discussed—a more fundamental rethinking of the institutional and normative standards of communications law remains compelling. Technological change continues apace; appetite for wireless spectrum remains voracious and unable to keep up with consumer demand; universal service remains focused on subsidizing rural telephony; and the FCC continues to be tasked with incompatible statutory goals based on backward-looking technological categories. If the Telecommunications Act of 1996, itself an amendment to the Communications Act of 1934, was immediately rendered obsolete by the Internet,[4] then 15 years on from that last revision, it surely remains ripe to reorient a communications law premised on monopoly and scarcity. Both the progressive left and

[1] Federal Communications Commission, "Statement from FCC Chairman Julius Genachowski on the Executive Order on Regulatory Reform and Independent Agencies," news release, July 11, 2011, http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-308340A1.pdf.
[2] See Reforming the FCC, a joint project of Public Knowledge and Silicon Flatirons, http://fcc-reform.org.
[3] Representative Greg Walden, chairman of the Subcommittee on Communications and Technology of the House Energy and Commerce Committee, is the latest to initiate legislation on FCC reform. See Walden, "FCC Needs Reform, Accountability," September 18, 2011, http://walden.house.gov/index.cfm?sectionid=94&sectiontree=8,94&itemid=747.
[4] See Robert C. Atkinson, "Telecom Regulation For The 21st Century: Avoiding Gridlock, Adapting to Change," *Journal on Telecommunications and High Technology Law* 4, no. 2 (2006): 379, 403; John D. Podesta, Jr., "Unplanned Obsolescence: The Telecommunications Act of 1996 Meets the Internet," *DePaul Law Review* 45 (1996): 1093, 1109.

free-market writers criticize the FCC for corporatism, for enabling rent-seeking, and for standardless "public interest" decision making. With this bipartisan agreement added to the mix, the imperative for bipartisan communications law reform becomes all the more compelling.

But imperatives for communications reform do not need to start from scratch. Indeed, current reform can profitably build from earlier efforts. Specifically, in 2005, the Digital Age Communications Act (DACA) working group published five separate reports on discrete communications law topics.[5] The DACA project gathered more than 50 leading communications policy scholars, including lawyers, academic economists, think tank analysts, and technologists, to craft model regulations in five major policy areas. The working group also strove for ideological balance by including free market and libertarian analysts, although a majority of working group members served in Democratic-led administrations. While each individual did not have to agree with every recommendation, the reports' goal was consensus on a better model than currently existed.

The working group published collaborative reports intended to guide regulators and legislators in their efforts to reform communications laws. Those reports resulted in a recommended model for communications law and became embodied in the Digital Age Communications Act of 2005.[6] Although never implemented, DACA provides a good start for communications reform six years from its introduction.

To reintroduce DACA into the communications law reform discussion, this paper proceeds in three parts. First, it considers whether communications should be treated as a separate species of law rather than be handled under property, contract, and tort law. Second, the paper describes the DACA project, its composition, and its purpose and discusses and summarizes the DACA recommendations. Third, it looks at the issues DACA did not address and offers a DACA-like solution.[7]

I. Does Communications Need a Separate Law?

A threshold question for reformers is: Why treat communications law as a separate area of law?[8]

More than a decade ago, Peter Huber advocated communications law reforms in his book *Law and Disorder in Cyberspace*. The book's subtitle gives its essential thesis:

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[5] Progress and Freedom Foundation, "Digital Age Communications Act," http://www.pff.org/daca/.
[6] *Digital Age Communications Act of 2005*, S. 2113, 109th Cong., 2005, http://www.govtrack.us/congress/bill.xpd?bill=s109-2113.
[7] The original DACA recommendations emerged from working group consensus reports. Any suggestions here are the author's own and have not been vetted through the DACA working group process.
[8] A succinct presentation of this question comes from Judge Easterbrook in "Cyberspace and the Law of the Horse," *University of Chicago Law Forum* 207 (1996). Judge Easterbrook cautions against legal innovations for the special case of the Internet, arguing instead that legal norms of property and contract will better allow the emergent order of the Internet to take shape.

Abolish the FCC and Let Common Law Rule the Telecosm.[9] Huber argues that problems with communications law arose from its treatment as a discrete area of law. This treatment allows special interests to predominate, he states. He further argues that general common law, combined with antitrust law as an expression of the common law of unfair competition, would be much more effective at promoting the rule of law, competition, and consumer welfare in telecommunications. Huber also indicts the FCC based on its inglorious history of thwarting competition and innovation and protecting monopoly. After all, it did take an antitrust case to break up the AT&T telephone monopoly. Why, then, Huber asks, persist with a special-sector regulator like the FCC, when general laws and general courts can perform just as well, if not better, and without the public choice hazards?

A pure common law approach had great appeal to many DACA working group participants, and it retains strong normative and institutional advantages over an agency specially focused on communications law. For those concerned with "agency capture" (for which there is ample historical evidence), a general common-law approach solves the public choice problems endemic to a single-focus administrative agency. In the end, the technical expertise arguments and practical political impediments to abolishing the FCC won out as a consensus position among DACA members, and DACA rejected abolishing the FCC and letting general law take over the communications sector. However, as a baseline set of assumptions against which to evaluate reform proposals, common law norms of adjudication, case-by-case decision-making, and judicial rigor remained valued goals for the working group.

First, DACA noted that general antitrust law depends on case-by-case, fact-based adjudication, where general rules take time to emerge, particularly across multiple jurisdictions. Because communications networks are national, indeed, global, the need for rule uniformity calls for a national regulator. The absence of a federal common law further exacerbates the problem to the extent that state and federal laws would both have a separate track of "emergent" rules for communications.[10] In addition, Balkanized legal rules would impede the scale of communications networks. If each state's common law, plus federal antitrust law, had some rule to offer governing communications networks, the result would likely be laws that hampered communications innovation rather than enabling it.

Next, DACA endorsed a sector-specific regulator because the regulation of communications networks would take ongoing supervision and expertise, which courts of general jurisdiction are not suited to do. As the Supreme Court noted, access to networks and facilities "will ordinarily require continuing supervision of a highly detailed decree," and "an antitrust court is unlikely to be an effective day-to-day enforcer of these detailed sharing obligations."[11] It judged that a specialized regulator, with expertise in the

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[9] Peter Huber, *Law and Disorder in Cyberspace: Abolish the FCC and Let Common Law Rule the Telecosm* (New York: Oxford University Press, 1997). Nomenclature surely has changed since Huber wrote his book. "Telecosm" and "cyberspace," neologisms then, sound quaint and outdated today.
[10] *Erie v. Tompkins*, 304 U.S. 64 (1938).
[11] *Verizon Communications, Inc. v. Law Offices of Curtis J. Trinko*, 540 U.S. 398, 415 (2004).

technical details, capabilities, and potential of communications networks, would be superior to either an agency or court of general jurisdiction. It comes down to a prudential judgment whether this expertise and need for national uniformity outweigh the hazards of rent-seeking and agency capture.

Finally, the DACA working group's endorsement of a sector-specific regulator is premised on the judgment that economic regulation and social policies like universal service are inextricable, and that Congress will, for the foreseeable future, treat them together. The DACA model seeks to separate the economic regulatory issues from the social policy issues and seeks to create a single regulatory governance structure to promote both economic welfare and social policy goals, but with more straightforward and transparent regulatory mechanisms.

In the end, the DACA working group opted for a rewritten communications law. The proposed new law was intended to minimize some hazards of a sector-specific legal regime through increased use of *ex post*, adjudicatory-type mechanisms. The DACA working group's consensus judgment was that the benefits of a single, national regulatory regime outweighed its all-too-well-known costs.

II. DACA as a Model for Communications Law Reform

The DACA model for communications law reform consists of five discrete reports issued in 2005 and 2006. The reports address the following topics:

1. regulatory framework
2. universal service
3. spectrum reform
4. federal–state jurisdiction
5. institutional/agency reform

Since DACA's issuance, spectrum reform remains crucial, and universal service reform is timely given [1]FCC activity in just this past month. Other topics, notably the federal–state jurisdictional split, have diminished in importance. State regulatory issues have grown senescent and federal–state struggles over jurisdiction and regulatory priority have receded. Nevertheless, the reports cover the main topics that still need to be addressed in communications reform, and the DACA model remains a consensus of some of the best minds in communications law and policy. While any given choice of the DACA working group can be disputed, the group's judgments represent a model for Congress as it looks to broadly supported principles for communications law reform.

a. Framework

DACA's regulatory framework is its centerpiece recommendation and its most overarching purpose. The DACA working group adopted a proposal largely based on the Federal Trade Commission Act. This model embraces antitrust-focused thinking and centers on the idea that "competition law and economics provides the only sound basis for addressing communications markets in the future, as those markets become more

competitive."[12] The DACA model does away with the persistent technological silos of "telecommunications," "cable," "wireless," and so forth. Instead, it opts for the antitrust-derived standard of consumer welfare and embraces competitive markets as the first protection of that welfare.

The DACA working group did not embrace a pure antitrust model, however, because of concerns specific to the communications market:

> The Working Group's proposal nevertheless differs from a pure antitrust model in three regards. First, the proposal maintains the Federal Communications Commission as a sector-specific regulator. Second, the proposal imports the general "unfair competition standard" from the FTC Act as the principal substantive standard for FCC action. This standard, while based upon the antitrust laws, does allow the FTC some leeway to take action to prevent incipient violations of the antitrust laws. Third, the proposal allows the FCC to order the interconnection of public networks without a finding of an abuse of significant market power, although the proposal does require a finding that markets are not adequately assuring interconnection.[13]

The operative DACA statutory standards forbid "unfair competition" and "unfair or deceptive acts" affecting commerce. Under the FTC Act model, the regulator retains its investigative and enforcement powers, and DACA supports this model.[14] In addition, DACA's "unfair competition" model would import the understanding of that standard worked out through the FTC's adjudications and litigation. The working group agreed with Judge Posner that "antitrust doctrine is supple enough, and its commitment to economic rationality strong enough, to take in stride the competitive issues presented by the new economy."[15]

In adopting an FTC model, the DACA working group also generally preferred the FTC's reactive, *ex post* adjudicatory model over the current FCC's prophylactic *ex ante* rulemaking, with enforcement as an afterthought. Accordingly, under a DACA regulatory framework, the core regulatory functions would be administrative adjudications. The "new FCC" would retain limited rulemaking authority, but that authority would be tethered to "unfair competition" principles, not the more open-ended "public interest." The breadth of "unfair competition" concerned some working group members, such that DACA explicates the standard as:

> practices that present a threat of abuse of significant and non-transitory market power as determined by the Commission consistent with the application of jurisprudential principles grounded in market-oriented competition analysis such

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[12] Randolph J. May and James B. Speta, *Digital Age Communications Act: Proposal of the Regulatory Framework Working Group, Release 1.0* (Washington, DC: Progress and Freedom Foundation, June 2005), 18, http://www.pff.org/issues-pubs/other/050617regframework.pdf.
[13] Ibid., 19–20.
[14] See 15 U.S.C. § 45(b).
[15] Richard A. Posner, "Antitrust in the New Economy," *Antitrust Law Journal* 68 (2001): 925.

as those commonly employed by the Federal Trade Commission and the United States Department of Justice in enforcing the Federal Trade Commission Act and the antitrust laws of the United States.[16]

While section 3(a) of DACA constrains the FTC unfair competition standard, section 3(b) offers expanded regulatory supervision over interconnection. The working group concluded that denial of interconnection presented a uniquely important and powerful leverage point in communications networks, and hence specified supervisory regulatory authority over interconnection. The working group did not flat out require blanket interconnection, however, recognizing that consumer welfare harms from denial of interconnection had to be balanced by potential adverse affects on facility investment and innovation. The gist of the DACA recommendation is that interconnection still retains special regulatory scrutiny, but the commission would retain discretion over whether denial of interconnection would negatively affect consumer welfare.[17]

Along with the FTC act's antitrust thrust, the DACA model also prefers *post hoc* adjudication over the current FCC's rulemaking. Under DACA, the agency would have authority to entertain private complaints and would have enhanced remedial authority to award damages, where appropriate. Rulemaking authority would still be present under DACA, but would require "clear and convincing evidence" before the agency acts. DACA codifies a preference for *ex post* adjudication, but still allows the agency to act when marketplace competition breaks down.

The DACA model thus changes both the normative legal standard and the institutional focus of communications law. The legal standard—unfair competition—remains broad but is anchored in antitrust consumer welfare. Instead of rulemaking, institutional change prefers adjudication, which the working group identified as increasing rigor, reducing error, and reflecting the predominance of market competition in the communications arena.

To be sure, these antitrust-like standards have their detractors. On one side, opponents point to the negative social utility of much antitrust action and to antitrust's susceptibility to the same rent-seeking the FCC is so easily convicted of.[18] On the other side, the progressive view finds antitrust too constrained to satisfy the desired regulatory scope of FCC action. The FCC's own Open Internet Order rejects any antitrust-like limits on the Commission's regulation of the Internet.[19] DACA constitutes the mean between

[16] DACA §3(a).
[17] The working group endorsed the conclusions of Michael Katz and Carl Shapiro that interconnection and denial of it raises special concerns in "systems markets." The working group also heeded Katz and Shapiro's caution about information problems and status quo protection. See Michael L. Katz and Carl Shapiro, "Network Externalities, Competition and Compatibility," *American Economic Review* 75 (1985): 525.
[18] See for example, Tom W. Bell, "The Common Law in Cyberspace," *Michigan Law Review* 97 (1999): 1746, 1753–57; see generally, Fred McChesney and William Shugart II, eds., *The Causes and Consequences of Antitrust: The Public-Choice Perspective* (Chicago: University of Chicago Press, 1995).
[19] See Federal Communications Commission, *In the Matter of Preserving Open Internet Broadband Industry Practices,* GN Docket 09-191, WC Docket 07-52, 78, December 23, 2010, 45–46.

these two extremes. In itself, this position does not recommend DACA as the preferred normative policy, but it does give a basis for a broad political consensus about legal norms. Because DACA is meant to be a practical, politically viable reform model, it allows those more detailed normative legal fights to be carried into the reformed agency.[20]

b. Universal Service

Universal service is both a central goal of U.S. telecommunications policy and a primary impediment to competition and rational pricing in communications service. Since AT&T President Theodore Vail proclaimed in 1907, "One Policy, One System, Universal Service," the concept of universally available communications service at comparable prices has been at the core of communications law and policy. In practice, this policy has meant that some consumers subsidize others; some services subsidize others; and some places subsidize others. Because the cost of building and maintaining communications networks varies greatly with geography and population density, the universal service policy has required communications regulators to create a price and taxation system to roughly equalize services and prices. This system has introduced grave pricing distortions and has encouraged uneconomic entry into some markets as well as business models premised on price arbitrage rather than consumer benefit.

The DACA working group conceded the political reality and vitality of universal service. Like the Telecommunications Act of 1996, DACA seeks to make universal service policy more transparent, economical, and efficient. The universal service working group opened its deliberations with three questions. First, what should universal service policy accomplish? Second, how should universal service policy be funded? Finally, how should universal service be distributed? These are the perennial questions of universal service, but the answers must be adapted from the world of communications monopoly to that of competitive free markets, and from that of landline telecommunications to one of wired and wireless broadband.

DACA answered the first question—what is universal service for?—by proposing a universal service policy motivated by "securing affordable basic electronic communication services for low-income households and households located in high cost areas, with transparent, easy-to-administer distribution and contribution mechanisms that are economically efficient and competitively neutral.[21] The supported service under DACA is called "basic electronic communications services" to reflect neutrality about what the service is and how it is delivered and to allow for advances in what is

[20] For instance, the DACA working group issued a statement on how net neutrality would be handled under the framework; see Randolph J. May and James B. Speta, *The Digital Age Communications Act's Regulatory Framework and Network Neutrality* (Washington, DC: Progress and Freedom Foundation, 2006), http://www.pff.org/issues-pubs/communications/other/031707dacastmt.pdf. As this statement makes clear, DACA would contemplate hearing complaints in the vein of net neutrality concerns, but would evaluate them through a rigorous hearing process focusing on consumer welfare effects.

[21] Randolph J. May and James B. Speta, *Digital Age Communications Act: Proposal of the Universal Service Working Group, Release 2.0* (Washington, DC: Progress and Freedom Foundation, December 2005), 2, http://www.pff.org/issues-pubs/books/051207daca-usf-2.0.pdf.

considered "basic service." The standard for basic service is meant to be emergent and not tied to a specific technology, device, or platform.

The DACA proposal has three key features to encourage innovation and experimentation within and between the states on how to best maximize access and use of "basic electronic communications services." It caps the overall size of the federal Universal Service Fund (USF). It distributes funds through performance-based block grants that encourage state governments to experiment with alternative subsidy mechanisms. Finally, it finances the USF primarily by a "numbers tax" on consumers and businesses.[22]

The FCC would continue to oversee the USF and would still collect contributions for the fund. However, instead of directly transferring federal funds to communications providers, the federal government would allocate them to whatever entity—public utility commission or otherwise—the state legislatures appoint to administer the federal program. In managing the USF, the state administrator would have to comply with federal guidelines, but would have broad discretion to create different models and forms of universal service support. DACA's block grant program would set forth broad federal goals, and within those goals states would be free to use the universal service grants as they saw fit. States could experiment with plans as disparate as traditional support of specific carriers, service vouchers to eligible consumers, or reverse auctions between providers. States would still be accountable to federal standards and surely would be susceptible to local public choice pressures. But the working group believed that the local public choice hazards would be outweighed by the value of experimentation with metrics that reward least-cost support and by incentives to achieve universal service performance metrics.

On the support side, the working group believed that a numbers-based assessment mechanism would be the least distortive and most broad based of the universal service support mechanisms. In assessing the different options for a contribution mechanism, the working group discussed a connections-based tax (based on non-linear taxes on a per-connection basis); a usage tax, and finally a numbers-based tax. The working group opted for a pure numbers-based tax levied on all telephone numbers. The consensus was that the numbers-based tax would be technologically neutral and be levied on the least elastic service: access. This system would best meet the economic criteria of optimal tax policy.

The universal service working group was skeptical of continuing a communications-focused subsidy policy. The preferred economic path for universal service policy would be general taxation and funding from general governmental revenues. This path would be the least distortive and most politically accountable. Nevertheless, communications law discussions inevitably center on untangling the long tentacles of universal service policy in current communications pricing. It is difficult to

[22] A numbers tax would assess a tax on each assigned telephone number to raise revenue for the Universal Service Fund.

imagine how universal service policy would not be a continuing central concern of whatever communications reform was proposed.[23]

c. Spectrum

Efficient allocation and use of the electromagnetic spectrum has been an acute challenge for communications regulation since the advent of the Federal Radio Commission in 1927. The central problem is a classic question of property law: "interference." One party's transmissions interfere with those of another party in the same (or a neighboring) geographic area and/or spectrum band. Historically, spectrum has been treated as a national resource managed centrally by the FCC. In practice, this has meant that the FCC allocated spectrum (a) to specific uses—e.g., broadcast radio or television; (b) by defining service parameters—e.g., transmitter power; (c) by assigning licenses to specific parties for transmitting over specific frequency bands at specific locations; and (d) by enforcing its allocations, service rules, and assignments.

Transfers under this command-and-control model can only happen with FCC permission. In practice, this means inordinate delays, costs, and burdens for spectrum to be efficiently utilized. To be sure, the FCC has taken steps toward a more market-based approach to spectrum allocation. But reform has been slow, and progress only partial. The economics literature is nearly unanimous in stating that property rights in spectrum are superior to the current licensing scheme,[24] and that spectrum allocation should take place through auctions that put its use in the hands of the entity that values it the most. The DACA spectrum working group, while considering alternatives, concluded that "there is no serious contender for a system that can be expected to perform as well or better" than a property-based system of spectrum allocation.[25]

The DACA working group described the property right in spectrum as follows:

> The property right would be defined in terms of the right to transmit over a specified spectrum band and geographic area (and during a specified time period) subject to: (1) an out-of-band emission limit; (2) an in-band power limit (because receivers in adjacent bands may be affected by in-band power even if out-of-band emissions are zero, or . . . there may be other in-band licensees); and (3) a field-strength limit for out-of-area emissions. The out-of-band and out-of-area emissions limits would be defined at the band and geographic boundaries, respectively.[26]

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[23] Federal Communications Commission, "Statement of Chairman Julius Genachowski re: Connect America Fund, WC Docket No. 10-90," news release, October 27, 2011, http://transition.fcc.gov/Daily_Releases/Daily_Business/2011/db1027/DOC-310695A2.pdf.

[24] The pioneering work here is from Ronald Coase, who in 1959 argued for property rights in spectrum. Coase, "The Federal Communications Commission," *Journal of Law & Economics* 2, no. 1 (1959). This paper is also the first place his famous Coase theorem appeared.

[25] Thomas M. Lenard and Lawrence J. White, *Digital Age Communications Act: Report from the Working Group on New Spectrum Policy, Release 1.0* (Washington, DC: Progress and Freedom Foundation, 2006), 3, http://www.pff.org/issues-pubs/books/060309dacaspectrum1.0.pdf.

[26] Ibid., 7–8.

The working group identified a property rights system as best adapting to new or unforeseen uses of spectrum. Further, property rights enable bargains between spectrum owners who value a given band or use. The working group rejected a wholesale commons model for spectrum, concluding that the conditions of a surfeit of spectrum did not apply, and noting that the regulatory supervision a commons model would require would exceed even that of the command-and-control inheritance. The spectrum working group retained a healthy respect for, and place for, unlicensed uses.

Of course, the transition between the current system and a property system is a large part of the problem, and the reason that the FCC—which, to its credit, has generally championed auctions and market-based spectrum mechanisms—has not decreed an immediately open market for spectrum. The FCC gave away much of the spectrum currently in use. To allow these users to simply resell what was conceived as a "public resource" would result in tremendous windfalls. Other users purchased portions of the spectrum at auction and operate it under an FCC license. Because the various allocations cover different uses and different permutations of a more complete property right, the working group offered a transition framework. To accomplish the transition, the DACA proposal treats spectrum differently based on how and where the current license was obtained. There are three broad classes of spectrum:

1. Spectrum that is exhaustively, exclusively (or with well-specified priority rights), and relatively flexibly licensed, with licenses purchased at auction (e.g., the personal communication services [PCS] licenses). This class mostly already operates under a market-driven regime. Under the DACA proposal, it would acquire formal property rights; other than that, it would be largely unaffected.
2. Spectrum encumbered by current use constraints, either on the nature of the service offered or on the time and scale of the service offering. This spectrum may have been licensed by auction or by other mechanisms, and may be exclusively or nonexclusively licensed (e.g., time-shared under a "listen-before-talk" requirement). The key feature is that the current licensee has less complete property rights than will attach to spectrum in the future under a market-based, fully allocated rights regime. Generally, spectrum in these bands is not exhaustively licensed; instead, these licenses give the users the right to operate certain equipment in defined frequencies and geographic areas at defined power levels.
3. Unassigned spectrum, including white spaces—the unused and unencumbered portions of spectrum licensed under category 2.

The transition options discussed below apply to the second and third classes.[27] Each option establishes property rights immediately, but the configurations of those rights differ based on distributional and transaction-cost concerns.

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[27] Ibid., 11.

The DACA working group endorsed a "spectrum registry" akin to a clerk and recorder's office for real property. The registry would facilitate spectrum transactions and help buyers and sellers to identify one another. The registry's overall purpose would be to lower transaction and negotiation costs. The public could view who owns what spectrum and under what parameters and power limits. The public could then negotiate more optimal uses or powers or address interference concerns.

Once regulators established spectrum property rights, regulators' operative role would be to enforce those rights or to provide a forum for that enforcement. Accordingly, DACA turns to the law of trespass for its adjudicatory standard over spectrum rights. The law of trespass would govern respective uses of spectrum—interference questions, for instance, would be cast as trespass claims. Institutionally, these rights could then be adjudicated, whether by courts of general jurisdiction or through a reconstituted FCC with administrative adjudicatory processes. Because of the specialized and ethereal nature of spectrum, specialized FCC administrative courts might make the most sense, according to DACA.

The end goal of spectrum reform would be more spectrum, better utilized, in the hands of those who value it most. The working group strongly endorsed a property system to achieve this goal, using any practical accommodations necessary to effectuate that transition.

d. State–Federal Relations

Traditionally, the state–federal regulatory authority has been conceived as "separate and dual." States had jurisdiction over local monopoly telephony, and the federal government regulated interstate networks, wireless service, and broadcast issues. The DACA recommendation continues the trend toward greater federalization, and even raises traditional issues of local control like franchising to the statewide level. The DACA working group discussions of state–federal relations were fraught with competing claims and strong views about traditional regulatory prerogatives. Today, that controversy has largely subsided.

The DACA working group's recommendations reflected that the overall structure and direction of communications regulation is federal. The need for a unitary regulatory framework, the belief that that communications policy should be a subset of general competition policy, and the concern over avoiding patchwork regulation and spillover effects from state regulation all pointed toward communications policy being a federal matter with limited state jurisdiction.

DACA proposed delegating to states and localities the authority to promote public safety and homeland security and to manage public rights-of-way, subject to federal law and a prohibition on effects that spill over state boundaries. DACA favored granting states the discretion to impose streamlined certification requirements. State fees for access to rights-of-way would be limited to the costs of such access.

In short, the working group endorsed a carefully circumscribed role for states and localities going forward in communications law. It recommended eliminating rate regulation, except under narrow circumstances. States would continue to be empowered to deter and remediate fraudulent activities such as slamming and cramming, but they could not engage in economic regulation under the guise of consumer protection.[28] While the working group at the time allowed states to retain a basic local service rate, even that rate regulation, in the time since DACA issued its reports, has begun to wane on a state-by-state basis. Hence, a "current" version of DACA might eliminate basic local service rate regulation in all instances save clear monopoly provision of communications services. Finally, states would retain supervision of alternative dispute-resolution procedures and other processes for solving consumer fraud problems.

A self-conscious commitment to an integrated regulatory framework would best promote sound communications policymaking, the working group found. Under such a model, states and localities would be permitted to regulate only within federally authorized spheres. This authority involves both an explicit delegation of authority—as exists, for example, under the 1996 Act's interconnection agreement regime—and a tolerance (through a "savings clause") for states to act in ways that do not affect other states and that are "not inconsistent" with federal regulatory policy.

e. Institutional Reform

DACA's institutional reform recommendations cannot be separated from the regulatory framework discussion. The framework envisions a competition policy agency focused on adjudication, not rulemaking. To complement this legal standard, the Institutional Reform Group recommended that a split agency model be adopted as the institutional mechanism for executing the regulatory functions proposed under DACA. In practice, a split agency model would mean that a multimember agency similar to the present FCC would be responsible largely for conducting the adjudications envisioned under the new statute, and a single executive branch official would be vested with the authority to conduct the more limited rulemaking proceedings envisioned by the new act as a means of establishing policy. The working group thought that the split-agency model would better serve the twin goals of political accountability for administrative policymaking through rulemaking while achieving efficient, effective, and sound decision-making through adjudicatory rigor.

The agency split would proceed as follows. Rulemaking authority for the agency would be vested in a single official located in the executive branch. The adjudication function (the principal form of agency action under DACA) would remain the FCC's role in its current multi-member form. The reformed commission would focus on a function within the traditional competence of multi-member panels—applying established principles to specific facts and circumstances during the adjudication of particular cases.

[28] "Slamming" and "cramming" involve the fraudulent actions of communications carriers to switch a subscriber's communications carrier (slamming) and add unauthorized charges to communications bills (cramming). Both are instances of consumer fraud.

Spectrum functions—registry supervision and the conduct of options—would be in the hands of the single executive branch administrator. In essence, DACA's institutional setup could be viewed as transferring the rulemaking/policy decisions over the current National Telecommunications and Information Administration, with the FCC remaining an adjudicatory body. The FCC, sitting in its adjudicatory capacity, would also make certain policy, but the primary rulemaking role would now be split off to a politically accountable executive branch official. Because the DACA FTC model reduces regulation through rulemaking, this institutional structure would still keep a large regulatory nexus at the FCC, but the executive branch would make the broader policy calls in rulemaking.

The institutional structure of communications law should be considered as important as the substantive legal standards. A broad antitrust standard in the hands of a lawless agency disinclined to rigor would accomplish little. That same standard in a more self-consciously adjudicatory and law-abiding agency would be better than current practices.

III. What Is Missing?

DACA did not presume to encompass every topic in communications law. Media law and ownership constitute the most glaring omissions. DACA also sidestepped content-regulation issues and public safety communications and networks. In addition, circumstances may have overtaken some of DACA's recommendations, illustrating how even a self-consciously forward-looking regulatory plan can mistake what the future will hold. For instance, federal–state issues appeared central to the working group in 2005–2006. Now, those issues seem largely worked out, with the states stepping aside for a national regulatory model.

Because it is styled as a law of general applicability within the communications sphere, DACA should be able to encompass issues like media ownership. An "unfair competition" standard with an antitrust pedigree would apply to media ownership and concentration issues. This standard would not satisfy those who are concerned about media ownership and concentration issues. Nevertheless, it would require a rigor and level of proof that are currently lacking from media ownership debates. Congress could add social policy objectives relating to media ownership, subject to constitutional constraints. Nevertheless, a DACA model for media ownership would begin with a strong presumption that the standards of general applicability from the FTC Act and the institutional method of adjudication would be the preferred lenses through which to view media issues.

Content issues do not fit neatly into the DACA framework. Competition policy law does little to regulate speech, particularly in a fecund media environment. While First Amendment law might be on the way to making specialized administrative regulation of content obsolete, DACA in its outlook and aims would not encompass a content regulation regime. The DACA response, if there were one, to proposals for content

regulation would likely leave such regulation to other agencies or to Congress rather than to the specialized competition policy agency that DACA contemplates.

Conclusion

Communications law reform remains a perennial topic because the categories, aims, and institutions of the 1934 and 1996 telecommunications laws are ill-suited to current technological and market reality. The "digital broadband migration," a term coined in 2000 by then-FCC Chairman Michael Powell, has continued apace, and law must be updated to reflect the technological reality. DACA thoroughly considered many models and standards for communications regulation, and a bipartisan group of scholars and analysts agreed on consensus outcomes. If Congress takes up communications reform on a wholesale basis, it can start with DACA as a roadmap to thinking about reform.

BT's Response to Questions Regarding "Modernizing the Communications Act"
January 31, 2014

BT welcomes the opportunity to respond to the Committee on Energy & Commerce's inquiry on modernizing the Communications Act. BT is a leading communications services provider. In the UK, we sell products and services to consumers and small and medium-sized enterprises. Around the world, as well as in the UK, we provide managed networked IT services for large multinational corporations, domestic businesses and national and local government organisations. We also sell wholesale telecoms services to communications providers in the UK and internationally.

BT provides service to around 7,000 large corporate and public sector customers in more than 170 countries worldwide. We have one of the largest networks in the world and more than 60% of our employees are based outside the UK. The United States is a vital market for us and is key to our business. In the US, we serve customers from offices in more than 25 key cities and employ 2600 people.

1. The current Communications Act is structured around particular services. Does this structure work for the modern communications sector? If not, around what structures or principles should the titles of the Communications Act revolve?

Communications services are vital in a modern world. As a global company operating in 170 countries around the world, BT has witnessed first-hand the positive impact that a truly competitive market can have on broadband deployment, innovation, jobs, and growth. A fundamental focus on competition law principles, which enable markets to function, should remain a cornerstone of any Act.

In addition, the goal of competition should remain consistent regardless of what services are being addressed. Any legislative changes should address barriers to entry and market power issues regardless of the technology.

2. What should a modern Communications Act look like? Which provisions should be retained from the existing Act, which provisions need to be adapted for today's communications environment, and which should be eliminated?

The market-based competition policy that was fundamental in the 1996 Telecommunications Act, and led to a surge of innovation, is as important today as it was then – and will endure into the future.

As discussed above, pro-competitive policies, allowing for equal, non-discriminatory access to essential inputs, are critical and, in our view, must be embraced to achieve full broadband potential. As we have seen in "special access" services -- the last mile facilities that both wireline and wireless providers use to reach their customers and connect their networks -- failure to remain committed to such policies can result in a failed market.

Proper examination of market power is needed even as technologies evolve. Infrastructure bottlenecks will continue to exist in an all-IP world, and therefore a modern Communications Act should protect against and/or remedy abuse of market power.

3. Are the structure and jurisdiction of the FCC in need of change? How should they be tailored to address systemic change in communications?

The FCC's jurisdiction over electronic communications needs to be sufficiently comprehensive to address competition, investment, and social policy goals.

4. As noted, the rapidly evolving nature of technology can make it difficult to legislate and regulate communications services. How do we create a set of laws flexible enough to have staying power? How can the laws be more technology-neutral?

By remaining committed to addressing abuses of market power, regardless of the technology, and reflecting tried and tested anti-trust principles, laws can stand the test of time.

The United States and United Kingdom developed similar approaches to telecom regulation in the 1980's and 1990's, involving: (a) effective sectoral non-discrimination regulation of economic bottleneck such as access and interconnection, allied to cost transparency; (b) promotion of competition in the interests of consumers, investment, and economic growth; (c) putting in place independent sectoral regulators in tandem with anti-trust regulatory oversight. This served both countries very well and was adopted as a model by many other countries - and espoused by the US and UK - such as across the EU, Japan, Australia, and elsewhere. These principles also formed part of the overall WTO package on basic telecommunications. And they hold true today.

BT has found that in the UK, our home market, the laws in this space continue to offer the benefits of the above approach. The UK regime covers obligations and rights for all services consisting wholly or mainly in conveyance of signals on electronic communications networks. This technology-neutral approach applies to both the physical networks linking telephone numbers and the logical networks linking IP addresses (both public and private).

Regular market reviews, including of wholesale access markets, are necessary to inform the debate about where bottlenecks exist. In the UK, market reviews are conducted by Ofcom, the regulator, at three year intervals to determine significant market power. These continual reviews inform where regulation can fall away or where targeted oversight might need to be set in place to ensure a functioning market. If Ofcom finds that a communications provider has significant market power, it has the obligation to put a range of safeguards in place, including accounting transparency, non-discrimination, and controls on the prices which the communications provider can charge. Ofcom will generally try to set charges that are reasonably based on costs and an appropriate return on the capital invested. Where BT is found to have significant market power, BT must generally offer competitors open and equal access in regards to products, terms and conditions, prices, and so on. This has resulted in a highly competitive market.

The UK Government continually reviews its rules to encourage growth and innovation and remove unnecessary regulation. In addition, anyone can appeal against Ofcom's decisions through a number of routes, including to the Competition Appeal Tribunal or to the High Court.

BT believes that it is possible to achieve a balance between ensuring the consumer benefits of service competition, and encouraging infrastructure investment. Oversight of BT's market power in UK has not disincentivized investment; on the contrary, it has resulted in greater coverage, faster speeds, and lower prices, with the fastest fibre roll-out of any major European country. [1]

5. Does the distinction between information and telecommunications services continue to serve a purpose? If not, how should the two be rationalized?

Regardless of the service, the focus should remain on ensuring pro-competitive policies for wholesale inputs.

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[1] International Communications Market, 2013, Ofcom