

## CTIA – THE WIRELESS ASSOCIATION® RESPONSE TO HOUSE WHITE PAPER ON COMPETITION POLICY AND ROLE OF THE FCC

CTIA – The Wireless Association® (“CTIA”) submits the following response to the White Paper released on May 19, 2014 by the House Committee on Energy and Commerce (“Committee”), as a part of its ongoing efforts to reform the Communications Act of 1934, as amended (the “Act”), requesting input on U.S. competition policy and the role of the Federal Communications Commission (“FCC” or “Commission”).<sup>1/</sup>

### I. INTRODUCTION AND SUMMARY

CTIA applauds the Committee’s continued interest in updating the Act, particularly as it relates to competition policy. As the Committee notes, the “industries and markets the Commission oversees have changed dramatically and will continue to evolve at a rapid pace.”<sup>2/</sup> One of the most important changes, as CTIA has explained to the Committee, has been the role of the wireless industry as a significant driver of the U.S. economy, with wireless carriers having invested billions of dollars in their networks.<sup>3/</sup> This massive investment not only reflects the existence of a vibrant and competitive wireless marketplace, but has created a “virtuous cycle” of wireless investment and innovation that has resulted in the introduction of new devices and encouraged the development of new applications and content that help drive usage by consumers and businesses.<sup>4/</sup> The explosive growth of the wireless industry and its prominent role in the

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<sup>1/</sup> See House Committee on Energy and Commerce, *Competition Policy and the Role of the Federal Communications Commission* (May 19, 2014) (“White Paper”), available at <http://energycommerce.house.gov/sites/republicans.energycommerce.house.gov/files/analysis/CommActUpdate/20140519WhitePaper-Competition.pdf>; see also 47 U.S.C. § 151 *et seq.*

<sup>2/</sup> *Id.* at 1.

<sup>3/</sup> See CTIA–The Wireless Association Response to House White Paper on Modernizing U.S. Spectrum Policy, at 1-2 (filed Apr. 25, 2014) (“CTIA Spectrum Policy Comments”), available at [http://energycommerce.house.gov/sites/republicans.energycommerce.house.gov/files/analysis/CommActUpdate/WP2\\_Responses\\_14-25.pdf](http://energycommerce.house.gov/sites/republicans.energycommerce.house.gov/files/analysis/CommActUpdate/WP2_Responses_14-25.pdf).

<sup>4/</sup> See *id.* at 2-4.

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United States economy have all occurred because the FCC has taken a light regulatory touch in general and with respect to competition policy in particular. Fostering the continued expansion of the wireless industry, as well as our Nation's leadership position in the industry, requires the preservation of policies that recognize the competitiveness of the wireless marketplace, the evolution of intermodal competition, and the need for periodic evaluation of the FCC and its regulations.

CTIA therefore recommends that Congress:

- Recognize that the wireless ecosystem is vibrantly competitive, requiring only continued “light touch” regulations by the FCC;
- Narrow the Commission's authority to regulate only in specific areas where competition might not necessarily produce the desired result;
- Ensure that there is a uniform national regulatory scheme for wireless communications products and services;
- Recognize that the broader communications marketplace – with intermodal competitors – is generally competitive, meaning that the usual rules for safeguarding competition embodied in the antitrust laws should be the basis for assessing competition;
- Ensure that, where there is meaningful intermodal competition, competitors should be regulated the same;
- Find that the FCC has a role in *promoting* intermodal competition by providing additional spectrum resources; and
- Require periodic review of the FCC's authority and regulations.

## I. CHARACTERISTICS OF THE COMMUNICATIONS MARKETPLACE

The White Paper seeks comment on the principles that should form the basis of competition policy in the oversight of the modern communications system.<sup>5/</sup> Similarly, the White Paper seeks comment on the regulatory construct that would best address the changing face of competition in the modern communications ecosystem and would remain flexible enough to address future changes.<sup>6/</sup> Noting that some parties have suggested that the FCC be transitioned to an enforcement agency rather than use broad rulemaking authority to set rules *a priori*, the White Paper asks what role the FCC should play in competition policy.<sup>7/</sup>

### A. The Current Light Regulatory Approach Has Produced a Competitive U.S. Wireless Marketplace.

The current light regulatory approach has successfully produced competition throughout today's wireless ecosystem, from infrastructure and equipment to devices to apps and content.<sup>8/</sup> As CTIA pointed out to the Commission, the U.S. has the most facilities-based mobile providers of any country.<sup>9/</sup> These wireless carriers have continued to deploy 4G LTE service across the U.S., making the Nation's LTE deployments the source of more than half of the world's 4G

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<sup>5/</sup> See White Paper at 2.

<sup>6/</sup> See *id.* at 3.

<sup>7/</sup> See *id.* at 2.

<sup>8/</sup> See Comments of CTIA–The Wireless Association, WT Docket No. 13-135, at 3-37 (filed June 17, 2013) (“CTIA Wireless Competition Comments”); see also Letter from Scott K. Bergmann, Vice President, Regulatory Affairs, CTIA–The Wireless Association, to Chairman Wheeler and Commissioners, FCC, GN Docket No. 09-51, WT Docket No. 13-135, at 3 (filed Nov. 13, 2013) (“CTIA Nov. 2013 *Ex Parte* Letter”); Simon Flannery, *Telecom Services, 2Q13 Tracker: Right Place, Right Time for Towers As Wireless Competition Rises*, MORGAN STANLEY RESEARCH, Aug. 27, 2013, at 1 (“2Q13 results made it clear that increasing US wireless competition is not a 2014 story; it’s happening now.”).

<sup>9/</sup> CTIA Nov. 2013 *Ex Parte* Letter at 3. The Commission has also noted that the wireless landscape consists of four nationwide facilities-based mobile wireless services providers, which cover in excess of 91 percent of the U.S. population. See *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*, Sixteenth Report, 28 FCC Rcd. 3700, ¶ 26 (2013) (“*Sixteenth Wireless Competition Report*”).

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subscribers.<sup>10/</sup> As a result of these deployments, nearly 93 percent of the total U.S. population has a choice of four or more wireless providers, more than 97 percent of consumers can choose from at least three providers, and almost 98 percent of all Americans have access to at least two mobile wireless broadband providers.<sup>11/</sup> Moreover, at least one U.S. carrier has reported that its LTE network covers 97 percent of the U.S. population,<sup>12/</sup> demonstrating that the U.S. is outperforming the E.U. market, which only offers 4G mobile broadband to 59 percent of its population.<sup>13/</sup> And U.S. wireless providers have showed no signs of slowing;<sup>14/</sup> indeed, analysts have noted aggressive efforts by all four nationwide carriers to compete in the marketplace.<sup>15/</sup>

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<sup>10/</sup> CTIA Wireless Competition Comments at 8-11; CTIA Nov. 2013 *Ex Parte* Letter at 1.

<sup>11/</sup> See Reply Comments of CTIA–The Wireless Association, WT Docket No. 13-135, at 3 (filed July 25, 2013) (“CTIA Wireless Competition Reply Comments”) (citing *Sixteenth Wireless Competition Report* ¶ 2).

<sup>12/</sup> See Verizon Press Release, *Verizon Caps Strong Record of Success in 2013 With Fourth Consecutive Quarter of Double-Digit Earnings Growth* (Jan. 21, 2014), available at <http://newscenter.verizon.com/corporate/news-articles/2014/01-21-verizon-reports-2013-4q-earnings/>.

<sup>13/</sup> See European Union Press Release, *The EU 2014 Digital Scoreboard: How Did You Fare?* (May 28, 2014), available at [http://europa.eu/rapid/press-release\\_IP-14-609\\_en.htm](http://europa.eu/rapid/press-release_IP-14-609_en.htm); see also Christopher S. Yoo, *U.S. vs. European Broadband Deployment: What Do the Data Say?* (June 2014), available at <https://www.law.upenn.edu/live/files/3352-us-vs-european-broadband-deployment> (“Some claim the European model of service-based competition, induced by stiff telephone-style regulation, outperforms the facilities-based competition practiced in the U.S. in promoting broadband. Data analyzed for this report reveals, however, that the U.S. led in many broadband metrics in 2011 and 2012.”).

<sup>14/</sup> Jennifer Fritzsche, *Verizon Communications Inc.: Highlights from Meeting with Senior Management*, WELLS FARGO SECURITIES, May 14, 2014, at 1.

<sup>15/</sup> See, e.g., John Hodulik, UBS GLOBAL RESEARCH, June 3, 2014, at 1 (“AT&T has been increasing investment in the network (Project VIP) and customer care (Project Agile) and re-pricing the base to lower churn and take share. . . . Because of these moves, we believe AT&T will lose fewer customers going forward, making the wireless market a more difficult place to compete for Verizon, T-Mobile, Sprint and any potential new entrant.”); John Hodulik, *Telecommunications: Postpaid Feeling the Pain; Prepaid Tee’d Up Next*, UBS GLOBAL RESEARCH, May 8, 2014, at 1 (“T-Mobile’s aggressive (and successful) efforts to gain share and AT&T’s surprisingly strong reaction have changed the tenor of competition in postpaid wireless.”); Colby Synesael, *Verizon is Not Immune; Net Adds for 1Q14 Disappoint*, COWEN AND COMPANY RESEARCH, Apr. 25, 2014, at 1 (“Verizon’s 1Q14 net phone losses show that no carrier is immune to increased competition and adds uncertainty to forward expectations.”).

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As a result, different carriers are leading in quarterly net adds, and average per user payments to carriers are on the decline.<sup>16/</sup>

The existence of this vibrant wireless marketplace is also evident in the massive capital investment carriers have made over the last decade; carriers would not be making these investments to a non-competitive market.<sup>17/</sup> As CTIA informed the Committee previously, investment in wireless networks continues to increase, with U.S. wireless carriers investing nearly \$300 billion in their networks since 2001.<sup>18/</sup> In addition, as researchers at Morgan Stanley have noted, carriers today are investing in new infrastructure, particularly LTE, as data demand grows and competition rises.<sup>19/</sup> Indeed, U.S. wireless capital expenditure spending hit an all-time high in 2013, with the Nation’s largest carriers together spending more money improving their networks that year than all 20 operators serving the five largest European Union countries combined.<sup>20/</sup> And, as shown in the below graphic, UBS predicts that U.S. wireless capital

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<sup>16/</sup> See, e.g., John Hodulik, *Telecommunications: Postpaid Feeling the Pain; Prepaid Tee’d Up Next*, UBS GLOBAL RESEARCH, May 8, 2014, at 1 (stating that postpaid average revenue per user fell 0.5 percent in the first quarter of 2014 – the first decline in five years – as three of the four national providers saw declines, and predicting that these trends will continue throughout the year); see also, e.g., *Grading the Top U.S. Wireless Carriers in the First Quarter of 2014*, FIERCEWIRELESS, May 14, 2014, available at <http://www.fiercewireless.com/special-reports/grading-top-us-wireless-carriers-first-quarter-2014#ixzz34Ltzu8WM> (providing, among other information, the quarterly net adds and ARPU for U.S. wireless carriers dating back to the fourth quarter of 2010). In fact, voice revenue per minute is less than one third of the European average. See Hal J. Singer, *Mandatory Interconnection: Should the FCC Serve as Internet Traffic Copy?*, PROGRESSIVE POLICY INSTITUTE, May 2014, available at <http://www.progressivepolicy.org/2014/05/mandatory-interconnection-should-the-fcc-serve-as-internet-traffic-cop/>.

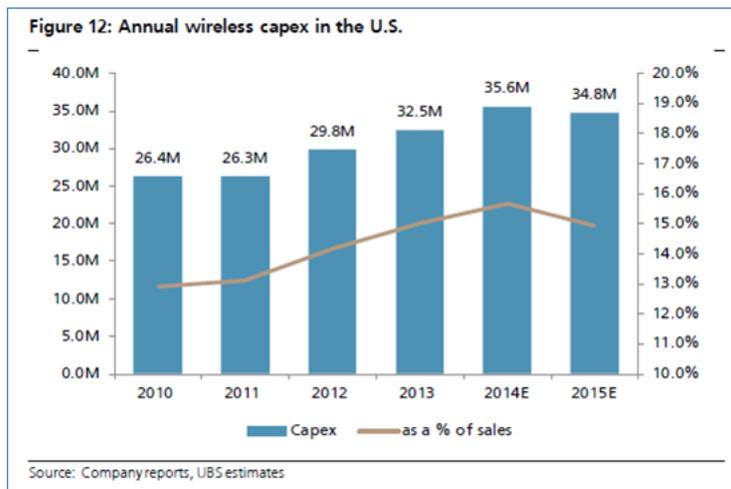
<sup>17/</sup> See *Sixteenth Competition Report* ¶ 181 (“[N]etwork investment remains a centerpiece of service providers’ efforts to improve their customers’ mobile wireless service experience.”); see also Christopher S. Yoo, *Is There a Role for Common Carriage in an Internet-Based World?*, 51 HOUS. L. REV. 545, 562 (2013) (“The extensive investment in infrastructure underscores the industry participants’ belief that investing in competitive infrastructure is still financially viable.”).

<sup>18/</sup> See CTIA Spectrum Policy Comments at 1-2.

<sup>19/</sup> See Simon Flannery, *Telecom Services 3Q13 Tracker: Capex and Spectrum in Focus as Competition Heats Up*, MORGAN STANLEY RESEARCH, Nov. 26, 2013.

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expenditures will reach new heights in 2014.<sup>21/</sup>



All of this has created consumer benefits in several ways.<sup>22/</sup> Because providers are continuously improving their infrastructure with faster and more robust networks, there are multiple nationwide and regional providers from which to choose.<sup>23/</sup> Moreover, consumers have access to a variety of handsets, which allows them to comparison shop for devices across carriers.<sup>24/</sup> Similarly, consumers benefit from increased network and device quality.<sup>25/</sup> Indeed, because of strong competition, wireless products must uniformly be high-quality in order to

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<sup>20/</sup> See Roger Entner, *Every Way You Look at It: Us Carriers Spend More in Capex than Its EU Peers*, RECON ANALYTICS LLC, June 9, 2014.

<sup>21/</sup> UBS Securities, LLC, *US Wireless 411: Version 52; Top 10 U.S. Wireless Trends in 1Q14*, May 10, 2014, at 1.

<sup>22/</sup> In addition to the consumer market, a vigorous Mobile Virtual Network Operator (“MVNO”) market exists today, which has evolved on a market-driven basis. See CTIA Nov. 2013 *Ex Parte* Letter at 3; CTIA Wireless Comments at 13-16.

<sup>23/</sup> See CTIA Wireless Competition Comments at 5-8; CTIA Wireless Competition Reply Comments at 3-6. Not only that, but the wireless tower business benefits from growing wireless competition as carriers look to compete on network quality. See Simony Flannery & Armintas Sinkevicius, *Telecom Services; Tower Show: Strong Leasing Trends, Thanks to AT&T and Verizon*, MORGAN STANLEY RESEARCH, May 23, 2014, at 1.

<sup>24/</sup> See CTIA Wireless Competition Comments at 20-25; CTIA Wireless Competition Reply Comments at 4; CTIA Nov. 2013 *Ex Parte* Letter at 2.

<sup>25/</sup> See CTIA Wireless Competition Comments at 2, 25-26.

compete.<sup>26/</sup> Finally, consumers today enjoy the benefit of pricing announcements driven by rivalry, which give them the chance to select among an assortment of service plans offered by different carriers.<sup>27/</sup> Simply put, the competitive wireless marketplace, created by the current light regulatory approach, is driving innovation and forcing carriers to constantly seek out the best quality device and service offerings, all to the benefit of American businesses and consumers.

**B. Competition Regulation of the Wireless Marketplace Should Continue to Be Limited.**

Because of the success of the current regulatory approach, Congress should ensure that the Commission continues to employ a light touch to competition policy. As the White Paper notes, “[r]egulatory policy should reflect the competitive conditions of the market it is addressing.”<sup>28/</sup> This less-is-more philosophy has allowed the industry to thrive and consumers to enjoy the benefits of cutting-edge choices in services and products.<sup>29/</sup> Further, broad guidelines – like a light regulatory regime – are more durable than strict mandates as they can adjust to the changing face of competition in the modern communications ecosystem.

To the extent that regulations are necessary, Congress should limit the circumstances under which the FCC may adjust marketplace forces through an *ex ante* regulatory structure.

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<sup>26/</sup> See CTIA Spectrum Policy Comments at 23; see also Comments of CTIA–The Wireless Association, ET Docket No. 13-101, at 3 (filed July 22, 2013).

<sup>27/</sup> See CTIA Wireless Competition Comments at 2; CTIA Wireless Competition Reply Comments at 4.

<sup>28/</sup> White Paper at 2. Indeed, FCC Chairman Wheeler agrees. See Cecilia Kang, *New FCC Chairman Tom Wheeler Promises to Stress Competition Over Regulation*, WASH. POST, Nov. 5, 2013, available at [http://www.washingtonpost.com/business/technology/new-fcc-chairman-tom-wheeler-promises-to-stress-competition-over-regulation/2013/11/05/578be50c-465a-11e3-a196-3544a03c2351\\_story.html](http://www.washingtonpost.com/business/technology/new-fcc-chairman-tom-wheeler-promises-to-stress-competition-over-regulation/2013/11/05/578be50c-465a-11e3-a196-3544a03c2351_story.html) (stating that, in a speech to FCC staff, Chairman Wheeler “reiterated his philosophy that market competition, not regulation, will guide the growth of the telecom sector and provide greater options for consumers”).

<sup>29/</sup> See CTIA Spectrum Policy Comments at 2-4; see also generally CTIA Wireless Competition Comments.

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The Commission should regulate only where competition might not naturally occur in the marketplace or where there is a market failure. For instance, CTIA has recognized the Commission’s role in ensuring the availability of public safety services, including with respect to the application of the Communications Assistance for Law Enforcement Act (“CALEA”) and 911 emergency services in an in-flight environment.<sup>30/</sup>

While the FCC’s role need not be restricted solely to *ex post* enforcement, it should generally evaluate competitive issues, including market power, as they arise and adopt *ex ante* regulations only when needed. Of course, there may be circumstances in which the FCC is able, based on available evidence, to forecast potential market failure, and *ex ante* regulations may be appropriate under those conditions. In contrast, *ex post* enforcement by the FCC better ensures that action is taken only after the Commission evaluates the relevant facts and circumstances and allows the FCC to narrowly tailor any remedial actions without stifling innovation.

Further, any *ex ante* regulatory actions should only be taken by the Commission pursuant to its clear authority under the Act. Congress should ensure that the Commission does not rely on “ancillary” authority to regulate where Congress never intended the FCC to intervene. When the Commission relies on such ancillary authority it not only potentially deviates from its Congressional directive, but it also creates uncertainty by imposing requirements without firm statutory support. For example, CTIA and others opposed the Commission’s use of ancillary authority to extend the outage reporting requirements in Part 4 of its rules<sup>31/</sup> and the Commission

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<sup>30/</sup> See Comments of CTIA–The Wireless Association, PS Docket No. 07-114 (filed May 12, 2014); Reply Comments of CTIA–The Wireless Association, WT Docket No. 13-301, at 7 (filed May 16, 2014).

<sup>31/</sup> See *The Proposed Extension of Part 4 of the Commission’s Rules Regarding Outage Reporting to Interconnected Voice Over Internet Protocol Service Providers and Broadband Internet Service*, Notice of Proposed Rulemaking, 26 FCC Rcd. 7166, ¶¶ 67-69 (2011); see also, e.g., Letter from CTIA—The Wireless Association, *et al.*, to James Arden Barnett, Jr., Rear Admiral (Ret.), Chief, Public Safety and Homeland security Bureau, FCC, PS Docket No. 11-82 (filed Nov. 14, 2011).

agreed that it lacked that authority with respect to broadband Internet services.<sup>32/</sup> Nor should the FCC use its ancillary jurisdiction under Title I of the Act to enact, for instance, new cramming mandates.<sup>33/</sup>

**C. Competition Policies for the Wireless Marketplace Should Be National in Scope.**

In addition to embodying a light regulatory touch, communications competition policy should also be national in scope. As detailed above, the wireless marketplace is competitive and carriers are providing numerous mobile services in addition to voice. In an era of *global* roaming, moreover, *State* boundaries are quickly becoming meaningless to consumers' perception of wireless services. These developments warrant a national framework for wireless services.

Therefore, Congress must ensure that State-based regulation of wireless communications products and services are comprehensively preempted. Currently, Section 332(c)(3) of the Act, while preempting State and local rate and entry regulation, preserves States' authority over "other terms and conditions" of commercial mobile radio services.<sup>34/</sup> States have used that preservation of authority to attempt to regulate national wireless services at a local level, creating a patchwork of regulations. Congress should address this issue and consider repealing that reservation of authority and extend federal preemption to all applicable state laws in order to promote a nationwide, uniform approach to the regulation of wireless services.

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<sup>32/</sup> See *The Proposed Extension of Part 4 of the Commission's Rules Regarding Outage Reporting to Interconnected Voice Over Internet Protocol Service Providers and Broadband Internet Service*, Report and Order, 27 FCC Rcd. 2650, ¶¶ 1, 58-67 (2012).

<sup>33/</sup> See Comments of CTIA–The Wireless Association, CG Docket Nos. 11-116, 09-158, 98-170, at 14-15 (filed June 25, 2012).

<sup>34/</sup> See 47 U.S.C. § 332(c)(3); see also H.R. REP. NO. 103-111 at 261 (1993) (suggesting that "other terms and conditions" include "such matters as billing information and practices . . . and other consumer protection matters; facilities siting issues (*e.g.*, zoning); . . . [and] the bundling of services and equipment").

## II. THE IMPACT OF INTERMODAL COMPETITION

As a prelude to questions about competition policies and structure, the White Paper asks how Congress should define competition in the modern communications market and how it can ensure that the definition is flexible enough to accommodate the rapidly changing industry.<sup>35/</sup> The White Paper also seeks input on how intermodal competition should factor into an analysis of competition in the communications market, including, among other things, how intermodal competition impacts the FCC’s authority and spectrum policy.<sup>36/</sup>

### A. The Definition of Competition Must Recognize Convergence.

Any Congressional analysis of competition should, in addition to recognizing the current competitive state of the wireless ecosystem enabled by a light regulatory approach, take into consideration the technological convergence that is occurring in the broader communications marketplace. As the White Paper observes, the communications market is witnessing “the integration of voice, video, and data services across multiple platforms employing various technologies” as well as an “ongoing shift away from single-purpose technologies toward Internet Protocol packet-switching.”<sup>37/</sup> Mobile technologies are not only competing with and replacing wireline services,<sup>38/</sup> but they are also competing with traditional video programming services.<sup>39/</sup> Moreover, over-the-top services are the largest growing communications service and

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<sup>35/</sup> See White Paper at 3.

<sup>36/</sup> See *id.* at 3.

<sup>37/</sup> *Id.* at 1.

<sup>38/</sup> See CTIA Spectrum Policy Comments at 4; see also *Sixteenth Wireless Competition Report* ¶¶ 365-367; White Paper at 1.

<sup>39/</sup> See CTIA, *53 Percent Believe Mobile Will Replace TV*, <http://www.ctia.org/resource-library/facts-and-infographics/archive/mobile-replace-television> (last visited June 13, 2014) (reporting that “[m]ore than fifty percent of consumers believe mobile devices will replace televisions as the most common way to consume television shows in movies in the next eight years”).

are expected to be so for the next ten years.<sup>40/</sup> In addition to cutting-edge devices, fast networks, constantly evolving operating systems, and innovative applications, consumers enjoy considerable choice in a wide array of communications services. To accommodate this changing landscape, competition should be defined flexibly to include an examination of what consumers consider product substitutes, including services offered by non-carrier providers. Such an approach is consistent with what the Committee endorsed in crafting the FCC Consolidated Reporting Act, which has been approved by the full House of Representatives.<sup>41/</sup>

**B. Convergence Demands a Uniform Approach to Intermodal Competition with a Potentially Reduced Role for the FCC.**

The fact that there is strong intermodal competition may necessitate a more limited role for the FCC in competition policy. The Commission has expertise in communications systems and the resulting regulatory structure is informed by that knowledge. However, where competitors are not all in the communications industry, the Commission’s perspective may be less relevant. Instead, existing antitrust principles may be more appropriately used to evaluate competition.<sup>42/</sup>

If Congress decides that a service requires regulation (because competition might not naturally produce appropriate results) and the FCC is the appropriate body to impose it, the regulatory structure should be applied uniformly across technologies. As the Committee previously pointed out, the current Act contains seven different titles, each governing a specific

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<sup>40/</sup> See CTIA, *OTT is Largest Growing Telecom Service*, <http://www.ctia.org/resource-library/facts-and-infographics/archive/growing-telecom-service-2013> (last visited June 13, 2014).

<sup>41/</sup> See Federal Communications Commission Consolidated Reporting Act, H.R. 2844, 113th Cong. (2013).

<sup>42/</sup> See *Policies Regarding Mobile Spectrum Holdings, et al.*, Report and Order, WT Docket No. 12-269, *et al.*, FCC 14-63, ¶ 248 (rel. Jun. 2, 2014) (“*Mobile Spectrum Holdings Order*”) (“As the Commission previously has stated in the context of orders addressing proposed transactions, our competitive analysis, which forms an important part of the public interest evaluation, is informed by, but not limited to, traditional antitrust principles.”).

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sector of the communications economy with inconsistent approaches to definitions and regulation.<sup>43/</sup> While products and services may be delivered over technologically differentiated platforms, consumers may nonetheless effectively view them as substitutes. Congress should therefore move away from its “siloed” approach to the marketplace and adopt policies that appropriately recognize growing intermodal competition. However, even without regulatory silos, Congress must still ensure that the FCC only regulates in areas where it has expertise and only where competition is unlikely to produce the desired result.<sup>44/</sup>

**C. Wireless Providers Need Additional Resources to Be Strong Intermodal Competitors.**

While the FCC should have a limited role in *regulating* intermodal competition, it has a critical role in *promoting* intermodal competition where it controls resources, particularly spectrum. In its previous response to the Committee, CTIA explained that wireless providers need access to a significant and predictable supply of spectrum in order to meet consumers’ evolving demands.<sup>45/</sup> This is particularly important as wireless providers increasingly deliver to consumers bandwidth-intensive Internet and video content that puts tremendous strain on

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<sup>43/</sup> See House Committee on Energy and Commerce, *Modernizing the Communications Act*, at 3 (Jan. 8, 2014), available at <http://energycommerce.house.gov/sites/republicans.energycommerce.house.gov/files/analysis/CommActUpdate/20140108WhitePaper.pdf>.

<sup>44/</sup> There is long-standing tension between regulation and antitrust laws. See, e.g., Dennis W. Carlton & Randal C. Picker, *Antitrust and Regulation* at 1 (Univ. of Chi. L. & Econ., Olin Working Paper No. 312, 2006), available at [http://chicagounbound.uchicago.edu/law\\_and\\_economics/57/](http://chicagounbound.uchicago.edu/law_and_economics/57/) (“Since 1890, policy makers have been forced repeatedly to work through how to interleave a fully general approach to competition under the antitrust laws with industry-specific approaches to competition under regulatory statutes.”). The FCC should resolve that tension by *not* regulating where the costs of continued regulation exceed the costs of market imperfections; competition need not be perfect to justify deregulation. See ALFRED E. KAHN, *THE ECONOMICS OF REGULATION: PRINCIPLES AND INSTITUTIONS*, VOLUMES 1-2, xxiii (1988) (“The verdict of the great majority of economists would, I believe, be that deregulation has been a success—bearing in mind, as always . . . that society’s choices are always between or among imperfect systems, but that, wherever it seems likely to be effective, even very imperfect competition is preferable to regulation.”).

<sup>45/</sup> See CTIA Spectrum Policy Comments at 4-5; see also CTIA Wireless Competition Comments at 61-67.

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wireless networks. Accordingly, CTIA urged Congress to adopt spectrum policies that allocate spectrum in bands suited for mobile broadband on a licensed basis – directing spectrum sharing where and when clearing is not feasible – and that provide opportunities for unlicensed use in bands that may not be suited or available for licensed use.<sup>46/</sup> In determining its competition policies, Congress should likewise ensure that the FCC has the authority to make additional cleared, licensed spectrum available so that all providers may compete effectively with others.

Toward this end, as CTIA previously suggested, Congress should ensure that additional spectrum resources are available to the FCC for reallocation to commercial use. One way Congress could achieve this is by creating incentives for federal agencies to utilize their spectrum more efficiently and to vacate unused or under-used spectrum.<sup>47/</sup> This, in turn, could be achieved by permitting federal agencies to have funding unrelated to spectrum auctions to recover costs related to spectrum relocation, efficiency, and sharing. Further, federal agencies could be required to pay fees for their spectrum usage that better reflect the spectrum’s value and encourage more efficient use,<sup>48/</sup> bringing additional resources to market.

### **III. REGULATION OF EDGE PROVIDERS AND NETWORK OPERATORS**

The White Paper observes that networks are increasingly becoming substitutes for one another and asks how competition should be defined among edge providers, noting that the reach of the FCC’s authority to regulate “edge providers” on the Internet has been the subject of some

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<sup>46/</sup> See CTIA Spectrum Policy Comments at 11-16.

<sup>47/</sup> See *id.* at 9-11.

<sup>48/</sup> See Letter from Steve Largent, CTIA—The Wireless Association®, to Tom Power, Deputy Chief Technology Officer, Telecommunications, Office of Science and Technology Policy, at 5-6 (filed Mar. 20, 2014) (“CTIA OSTP Comments”), available at [http://www.whitehouse.gov/sites/default/files/microsites/ostp/rfi\\_responses\\_-\\_fr\\_doc.\\_2014-03413\\_filed\\_2-14-14\\_all.pdf](http://www.whitehouse.gov/sites/default/files/microsites/ostp/rfi_responses_-_fr_doc._2014-03413_filed_2-14-14_all.pdf).

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disagreement.<sup>49/</sup> It also asks what role, if any, that the Commission should have to regulate edge providers.

As suggested above, edge providers have flourished in an unregulated world, providing extensive growth in over-the-top services and illustrating the success of intermodal competition. While edge providers are not “facilities-based,” they do, in many cases, compete directly with traditional providers of voice and video services. Increasingly, consumers view the unregulated products and services offered by edge providers – including Voice over Internet Protocol (“VoIP”) and streaming video services – as substitutes for services offered by more heavily regulated communications providers.<sup>50/</sup>

This example of intermodal competition illustrates CTIA’s points above – FCC competition regulation for all competitors should be limited where there is no clear authority to regulate some competitors. The FCC’s authority to regulate edge providers – and the regulated entities with which they compete – should be closely based on its authority in the Act. If there are gaps, Congress may choose to fill them, as for example, when it extended limited authority to the FCC to adopt rules requiring providers of VoIP services to supply enhanced 911 capabilities to their customers.<sup>51/</sup> Congress should ensure that the Act provides clear direction to the Commission so that it acts only in instances where Congress has found the need exists.

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<sup>49/</sup> See White Paper at 3.

<sup>50/</sup> See CTIA Wireless Competition Comments at 54 (asserting that a number of consumers have chosen to replace conventional wireless voice services with VoIP applications); see also Tony Lenoir, *Factors Impacting Cable Churn in 2011-2012*, SNL KAGAN, Oct. 30, 2012, at 10 (warning multi-channel video programming distributors that the substitution of online video, particularly among young adults, should not be dismissed).

<sup>51/</sup> See *IP-Enabled Services; E911 Requirements for IP-Enabled Service Providers*, First Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd. 10245, n.95 (2005) (“The Commission’s assertion of federal jurisdiction over 911/E911 matters has since been ratified twice by Congress.”) (citing Wireless Communications and Public Safety Act of 1999, Pub. L. No. 106-81, 113 Stat. 1286, § 2(a)(4)).

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To the contrary, more general policies enforced by the Department of Justice and Federal Trade Commission should be the standard for addressing competition between edge providers and more traditionally-regulated providers. Congress should implement the principle of regulatory parity and apply a light regulatory touch to *all* competitors in the market; if services offered by edge providers are unregulated, then similar offerings by network operators should likewise be unregulated.<sup>52/</sup>

**IV. REGULAR REVIEW OF THE SCOPE OF STATUTORY AND REGULATORY AUTHORITY**

Based on the rapid changes in the competitive communications marketplace, the White Paper asks whether the Act should require periodic reauthorization of the FCC by Congress to provide opportunities to reevaluate the effectiveness of and necessity for the agency’s provisions.<sup>53/</sup> CTIA agrees that, particularly in light of rapid technological changes, Congress should regularly review the scope of the FCC’s authority. The FCC has not been subject to reauthorization since 1991.<sup>54/</sup> While the wireless ecosystem has thrived under the Commission’s current authority, the reauthorization process is important to ensure that the FCC continues to

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(1999); Ensuring Needed Help Arrives Near Callers Employing 911 Act of 2004, Pub. Law 108-494 (2004) (codified at 47 U.S.C. § 901 nt.) (ENHANCE 911 Act of 2004)).

<sup>52/</sup> See, e.g., Comments of CTIA–The Wireless Association, GN Docket No. 09-191, WC Docket No. 07-52, at ii (filed Oct. 12, 2010) (noting that “for wireless networks to operate to the benefit of consumers, network operators must have the flexibility to constantly evolve the management of their networks to optimize performance”); Comments of CTIA–The Wireless Association, GN Docket No. 14-28, at 9 (filed Mar. 21, 2014) (“Given the exceedingly competitive and dynamic nature of the mobile wireless marketplace, the absence of any demonstrated harm relating to mobile broadband practices, and the enormous welfare gains that the marketplace is conferring upon consumers, the Commission should avoid prescriptive regulation that will be outdated as soon as the ink is dry.”).

<sup>53/</sup> See White Paper at 3.

<sup>54/</sup> See Financial Services and General Government Appropriations Act, H.R. REP. NO. 113-172, at 126-127 (2013), available at <http://beta.congress.gov/113/crpt/hrpt172/CRPT-113hrpt172.pdf>. In 2003, the Senate introduced a bill – The Federal Communications Commission Reauthorization Act of 2003 (S.1264) – to reauthorize the Commission, but this bill failed to become law. See FCC Reauthorization Act of 2003, S. REP. NO. 108-140, at 2 (2003), available at <http://www.gpo.gov/fdsys/pkg/CRPT-108srpt140/pdf/CRPT-108srpt140.pdf>.

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meet Congressional directives as the communications market evolves.<sup>55/</sup> Indeed, if the FCC were subject to more periodic review as part of the reauthorization process, the type of comprehensive re-write of the Act now contemplated by Congress may be less necessary.

Relatedly, Congress should create a more meaningful requirement for the FCC to periodically review the regulatory requirements it creates. Currently, Section 11(a) of the Act requires the Commission to review its regulations biennially and determine whether any of those regulations are no longer necessary as the result of meaningful economic competition.<sup>56/</sup> Section 11(b) directs the Commission to repeal or modify any regulations that it finds are no longer in the public interest.<sup>57/</sup> Pursuant to these directives, the FCC typically issues a Public Notice seeking recommendations for rule sections that should be examined for elimination and then issues another Public Notice with recommendations by the relevant FCC bureaus.<sup>58/</sup>

This review process, however, has been cumbersome and largely ineffectual, leaving rules governing the wireless industry that are outdated, unnecessary, and ripe for repeal. For instance, as part of the 2006 biennial review, the Wireless Telecommunications Bureau (“WTB”) recommended that the FCC eliminate the requirement that an applicant seeking approval for a transfer of control or assignment of a license within three years of receiving the license through

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<sup>55/</sup> Indeed, in 1991, the communications market was largely in analog mode and there were just 7.5 million wireless subscribers. *See Implementation of Section 6002(B) of the Omnibus Budget Reconciliation Act of 1993 Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, First Report, 10 FCC Rcd. 8844, at Table 1 (1995).

<sup>56/</sup> *See* 47 U.S.C. § 161(a).

<sup>57/</sup> *See* 47 U.S.C. § 161(b).

<sup>58/</sup> *See, e.g., Commission 2010 Biennial Review of Telecommunications Regulations*, Public Notice, 26 FCC Rcd. 16943 (2011); *Commission Seeks Public Comment in 2010 Biennial Review of Telecommunications Regulations; Announces Particular Focus in Data Collection Requirements*, Public Notice, 25 FCC Rcd. 18135 (2010); *Commission Releases 2008 Biennial Review of Telecommunications Regulations*, Public Notice, 25 FCC Rcd. 9041 (2010); *The Commission Seeks Public Comment in the 2008 Biennial Review of Telecommunications Regulations*, Public Notice, 23 FCC Rcd. 13636 (2008).

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an auction must file transaction documents with the Commission because the rule is unnecessary to achieve any further regulatory purpose.<sup>59/</sup> This rule, however, remains in place today.<sup>60/</sup> Similarly, the WTB has recommended the removal of several rules that have already expired by their own terms, yet they remain part of the Commission’s regulations.<sup>61/</sup>

To better ensure that the FCC fulfills its statutory mandate to eliminate outdated regulations, Congress could consider a number of options. For example, the Act could be amended to provide that a rule will be deemed automatically removed from the FCC’s regulations, without further action from the Commission, once the FCC, based on recommendations from the relevant bureaus, determines in its biennial review that the rule should be eliminated. Alternatively, the Commission could be required to initiate a new or updated rulemaking proceeding within a specified time after releasing a biennial review where a bureau has recommended modification of a rule or noted that such modification should be covered in a pending rulemaking proceeding. Whatever mechanism – these or others – is created, a structure must be created so that regulations do not exist in perpetuity.<sup>62/</sup> Of course, any option adopted must ensure that there is regulatory certainty; regulations cannot be permitted to be enacted or eliminated without appropriate notice.

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<sup>59/</sup> See *Federal Communications Commission 2006 Biennial Regulatory Review*, Report, 22 FCC Rcd. 3006, ¶ 36 (2007) (“2006 Biennial Review Report”).

<sup>60/</sup> See 47 C.F.R. § 1.2111(a).

<sup>61/</sup> Compare 2006 Biennial Review Report ¶¶ 38, 40 with 47 C.F.R. §§ 20.6, 20.20.

<sup>62/</sup> See #CommActUpdate: *Perspectives from Former FCC Chairmen: Hearing Before the Subcomm. on Comm’n & Tech. of the H. Comm. on Energy and Commerce*, 113th Cong., at 4 (2014) (testimony of Richard E. Wiley), available at <http://docs.house.gov/meetings/IF/IF16/20140115/101648/HHRG-113-IF16-Wstate-WileyR-20140115.pdf> (“New regulations should be instituted with a lighter touch, accompanied by sunset provisions so that the rationale for continued government intervention can be reviewed on a regular basis.”).

**V. CONCLUSION**

As the wireless industry continues to thrive based on the FCC’s current light regulatory touch, Congress should ensure that any updates to its competition policies maintain and extend that approach. These principles should also govern the broader communications market and edge providers as technological convergence continues to occur. Finally, to safeguard the success of this framework going forward, Congress should periodically review the FCC’s authority and ensure that the Commission’s regulations are likewise evaluated. CTIA remains committed to working with the Committee on these efforts and is looking forward to providing additional input as the Committee updates the Act.

June 13, 2014

June 13, 2014

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

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

Re: Competition Policy and the Role of the Federal Communications Commission

Dear Chairman Upton and Chairman Walden:

Thank you for the opportunity to comment on competition policy and the role of the Federal Communications Commission.<sup>1</sup>

I. HOW SHOULD CONGRESS DEFINE COMPETITION?

As the full title of the Telecommunications Act of 1996 suggests, promoting competition and reducing regulation are both necessary prerequisites for providing consumers with better services, more choices and ultimately lower prices.<sup>2</sup> Reed Hundt, chairman of the FCC at the time, elaborated that “our policy was to introduce competition and then to deregulate,” and that the “purpose of pro-competitive rulemaking ultimately would be the elimination of rules.”<sup>3</sup> “On competition,” Hundt said, “I had two sub-themes: clear, enforceable rules opening monopolized markets to entrepreneurs, and the elimination of regulation where competition existed.”<sup>4</sup>

The marketplace of today is completely different than what existed when President Clinton signed the act into law—when local telephone service was furnished by monopoly providers, and when competition between cable operators and Direct Broadcast Satellite service providers was ramping up. The act’s objectives have been achieved. The relevant question now is what justifies a specialized competition agency

for this market when the Federal Trade Commission and the Antitrust Division of the Department of Justice are deemed sufficient for virtually every other vital sector of the economy?

The FCC's elastic mandate to promote competition—effectively immune from judicial review, in many cases—is an open invitation for regulators to indulge their “very high marginal propensity to meddle”<sup>5</sup> in the market in the hope of achieving superior results. By creating the prospect that the rules can always change, the mandate poses a constant threat to investment and innovation. No other industry faces a similar challenge.

If it's the will of Congress that the FCC should have carte blanche to regulate wholesale and retail rates, terms and conditions, license transfers and other matters in its own discretion until the market is “competitive,” then defining competition would be helpful—since it is and will be a matter of endless debate at what point there's enough competition to warrant reducing regulation. However, defining competition in terms of a convenient metric like market share or number of competitors would not only be an arbitrary exercise, but it would ignore the fact that this market is special. The late Alfred E. Kahn remarked in 2007 that “in the circumstances that Schumpeter envisioned ... no one could deny we have the most extreme example of competition by innovation,” and that “it's clear that in this particular industry, this dynamic kind of competition is certainly as close to unique as any could be.”<sup>6</sup>

For some people, effective competition isn't enough. They seem to believe that real competition means no one's making any money. Hoping to induce regulators to approve a merger, one industry executive recently pandered to this audience by offering to ignite a “massive price war.”<sup>7</sup> However, there is an ongoing need for immense private investment to create broadband abundance, and regulation that encourages (directly or indirectly) service providers to cut prices to the bone threatens their ability to offer competitive investment returns needed to attract tens of billions of dollars in private investment capital every year. The Department of Justice recently made a similar observation, and went on to highlight some of the positive things the FCC can do to promote competition.

In practice, [promoting competition] does not mean striving for broadband markets that look like textbook markets of perfect competition, with many price-taking firms. That market structure is unsuitable for the provision of broadband services, which involve very substantial fixed and sunk costs. Rather, promoting competition is likely to take the form of enabling additional entry and expansion by wireless broadband providers, applying other appropriate policy levers, and spurring competition among broadband providers by improving the information available to consumers about the service offerings in their areas.<sup>8</sup>

As the Department of Justice suggests, rather than attempting to define competition, it might be helpful to focus on what are the primary tools that regulators ought to be using—and making it clear that getting rid of legacy regulation designed for government-sanctioned monopolies is what the Telecommunications Act was all about. Like Kahn says,

The industry is obviously no longer a natural monopoly and wherever there is effective competition—typically and most powerfully, between competing platforms—land-line telephony, cable and wireless—regulation of the historical variety is both unnecessary and likely to be anticompetitive. In particular, it is likely to discourage the heavy investment in the development and competitive offering of new platforms, and in increasing the capacity of the Internet to handle the likely astronomical increase in demands on it for such uses as on-line medical monitoring and diagnosis, video transcription and gaming.<sup>9</sup>

## II. HOW SHOULD INTERMODAL COMPETITION FACTOR INTO AN ANALYSIS OF COMPETITION IN THE COMMUNICATIONS MARKET

The competing land-line telephony, cable and wireless platforms that Kahn referred to in the preceding section were completely distinct from a consumer perspective not too long ago. They have been in an obvious process of converging to the point that consumers increasingly view them as indistinct. The process will continue, because telecom is a relentlessly declining-cost business.

The problem from a policymaking perspective has been about timing the transition to new regulatory paradigms. Currently the FCC is authorized and directed to forbear when regulation is no longer in the public interest. But this process has been a disappointment. Even after it became clear that the Competitive Local Exchange Carrier (CLEC) project was a failure, for example, it took the commission far too long to shift gears and ensure that telecom providers and cable operators had the same obligations and incentives to compete.

Defenders of the regulatory status quo then demanded perfect substitutes for purposes of assessing competition. And regulatory nostalgists are copying the same script. So, for example, Susan Crawford will claim that “for 75 percent of Americans the only choice for globally standard high-speed Internet access will soon be the local cable guy,”<sup>10</sup> even though as most consumers see it they have multiple choices (each with its own comparative advantage, to be sure). Crawford can make this absurd claim because she defines broadband as “access at the speeds necessary to carry out real-time videoconferencing or watch high-definition video,”<sup>11</sup> even though these are emerging applications that consumers are still in the process of embracing. What’s happening is that cable’s competitors, notwithstanding Verizon’s FiOS investment, are attempting to

augment network capacity incrementally just ahead of consumer demand on the wired side, and as fast as technology and available spectrum allow on the wireless side.

Although they don't fit the textbook definition of perfect substitutes, the intermodal broadband offerings are effective substitutes—becoming more real and powerful all the time. Legacy utility regulation of the type Crawford advocates would needlessly delay or even jeopardize this process.

\* \* \*

Thank you very much for the opportunity to submit these views, which are my own and do not necessarily reflect the personal views of the officers or fellows of the Discovery Institute.

Sincerely,



Hance Haney  
Senior Fellow & Director  
Technology & Democracy Project  
Discovery Institute

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<sup>1</sup> “Committee Focuses on Competition Policy in Latest #CommActUpdate White Paper” [Press release], *Energy & Commerce Committee, United States House of Representatives* (May 19, 2014), available at <http://energycommerce.house.gov/press-release/committee-focuses-competition-policy-latest-commactupdate-white-paper>.

<sup>2</sup> Pub. L. 104-104 (“An Act To promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies.”)

<sup>3</sup> Reed E. Hundt, *You Say You Want a Revolution: A Story of Information Age Politics* (Yale Univ. Press, 2000) at 26, 56.

<sup>4</sup> *Id.* at 177.

<sup>5</sup> Workshop: Broadband Connectivity Competition Policy (Transcript), *Federal Trade Commission* (Feb. 13, 2007) available at [http://www.ftc.gov/sites/default/files/documents/public\\_events/broadband-connectivity-competition-policy/transcript\\_070213.pdf](http://www.ftc.gov/sites/default/files/documents/public_events/broadband-connectivity-competition-policy/transcript_070213.pdf), at 183, 192.

<sup>6</sup> *Id.* at 185.

<sup>7</sup> “Sprint Chairman Vows ‘Price War’ If T-Mobile Deal Allowed,” by Aaron Clark, Takashi Amano and Crayton Harrison, *Bloomberg* (Mar. 11, 2014 available at <http://www.bloomberg.com/news/2014-03-11-sprint-chairman-vows-price-war-if-t-mobile-deal-allowed/>).

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[11/softbank-s-son-vows-massive-price-war-if-t-mobile-deal-allowed.html](http://softbank-s-son-vows-massive-price-war-if-t-mobile-deal-allowed.html).

<sup>8</sup> Ex Parte Submission of USDOJ, In the Matter of Economic Issues in Broadband Competition: A National Broadband Plan for Our Future, FCC GN Docket No. 09-51 (Jan. 4, 2010), pp. 29-30 available at <http://www.justice.gov/atr/public/comments/253393.pdf>, at 29.

<sup>9</sup> “Network Neutrality,” by Alfred E. Kahn, *AEI-Brookings Joint Center for Regulatory Studies* (Mar. 2007) available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=973513](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=973513), at 1.

<sup>10</sup> Susan Crawford, *Captive Audience: The Telecom Industry and Monopoly Power in the Gilded Age* (Yale Univ. Press, 2013) at 65.

<sup>11</sup> *Id.* at 284.

13 June 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,

The following are my responses to your committee's white paper, "Competition Policy and the Role of the Federal Communications Commission." If there are any questions, I may be reached at [REDACTED]

Sincerely,

/s/Alton Drew  
Alton Drew

**1. How should Congress define competition in the modern communications marketplace? How can we ensure that this definition is flexible enough to accommodate this rapidly changing industry?**

Congress should avoid defining competition based on the number of broadband providers in a market. Instead, Congress should base its competitive analysis on an assessment of the entire Internet eco-system based on two prongs.

First, are prices for broadband access services falling, unchanged, or not increasing by an amount greater than the annual rate of inflation? If the answer is yes, then the FCC should declare that the consumer market for broadband access providers is competitive. Where consumer demand is negatively responsive to an increase in prices, there should be a declaration that the consumer market for broadband services is not competitive.

Second, do we see continued entry of edge, content, or access software providers into the Internet market? Consumers access the Internet for the purpose of accessing information they can rely on. The value of the information sought and of the network increases where there are an increasing number of information sources. Where the FCC finds the number of edge, content, and app developers increasing, the FCC should declare that edge provider space is competitive.

**2. What principles should form the basis of competition policy in the oversight of the modern communications ecosystem?**

Competition policy should have as its primary principle the maintenance of a regulatory environment that encourages entrepreneurial activity in the edge provider, content provider, and app developer space. Included in this activity is the ability for the entrepreneur to attract capital and deliver to consumers via the Internet innovative products and services.

Promoting entrepreneurial activity results in service providers entering the market and providing services that will keep the information consumer coming back. Consumers gain protection during transactions from the entrepreneurs delivery of the best service possible with the knowledge that there are other providers willing to occupy his space.

**3. How should intermodal competition factor into an analysis of competition in the communications market?**

It is time for Congress and the FCC to abandon the silo approach to assessing competition in the communications market. The communications market is experiencing what I refer to as Convergence 3.0.

In Convergence 1.0, local phone companies wanted to be long distance companies. Cable companies wanted to be local phone companies. Long distance companies just wanted to survive and were willing to be anything.

In convergence 2.0, traditional wireline companies also provided wireless services and broadband. Cable companies provided wireline, broadband, and delivered video services. Long distance companies went the way of the woolly mammoth.

Today, under Convergence 3.0, Facebook and Google are attempting innovative ways to bring broadband to consumers, with the potential and the cash to offer competitive alternatives to current broadband providers. Apple is making content plays, its most recent being the purchase of a music streaming service. Today's convergence has more than blurred the lines separating platforms. Convergence has obliterated those lines.

In short, to think about intermodal competition is to go back to the stone age also known as the 20<sup>th</sup> century. Congress must legislate and the FCC must regulate in the 21<sup>st</sup> century.

**4. Some have suggested that the FCC be transitioned to an enforcement agency, along the lines of the operation of the Federal Trade Commission, rather than use broad**

**rulemaking authority to set rules *a priori*. What role should the FCC play in competition policy?**

The FCC should play no role in competition and the Communications Act should be updated to reflect that. The FCC's focus should be on spectrum, spectrum, and spectrum, along with streamlining regulations that facilitate deployment of infrastructure necessary for deploying the nation's digital communications capabilities.

It's enforcement powers should be carried out to the extent currently reflected in the Communications Act, but broad rulemaking should be abandoned. The Commission does not have a clean crystal ball and should not be in the business of trying to predict how the communications markets will look in the future.

Were the Commission good at such predictions it would not have forced Sprint to divest its landline services prior to its merger with Nextel. Sprint, without a wireline service, in my opinion was placed in less competitive posture with AT&T and Verizon because of the divestiture.

**5. What, if any, are the implications of ongoing intermodal competition at the service level on the Commission's authority? Should the scope of the Commission's jurisdiction be changed as a result?**

Competition between service providers using different platforms should work to reduce the Commission's authority to regulate versus address disputes between consumers and service providers. Intermodal competition tells me that consumers can choose another provider for their broadband services with the Commission stepping in only to resolve consumer protection issues that statutes give it authority to address.

**6. Competition at the network level has been a focus of FCC regulation in the past. As networks are increasingly substitutes for one another, competition between services has become even more important. Following the *Verizon* decision, the reach of the Commission to regulate "edge providers" on the Internet is the subject of some disagreement. How should we define competition among edge providers? What role, if any, should the Commission have to regulate edge providers – providers of services that are network agnostic?**

As discussed above, consumers access the Internet for the purpose of accessing information they can rely on. The value of the information sought and of the network increases where there are an increasing number of information sources. Where the FCC finds the number of edge, content, and app developers increasing, the FCC should declare that edge provider space is competitive.

Should the FCC regulate edge providers? No. Edge providers already face technical and financial hurdles to entering edge provider markets. Regulation introduces uncertainty and uncertainty scares away capital investment.

**7. What regulatory construct would best address the changing face of competition in the modern communications ecosystem and remain flexible to address future change?**

What would be best is for Congress to re-write the Communications Act with the flexibility needed to address changes in technology. That I admit is a tough task and may only be doable if the Act and the Commission did not focus on trying to predict what type of services or what platform services will be provided on in the future, but puts in place an adjudicative process that allows network providers to settle disputes while passing on consumer complaints to the Federal Trade Commission. The Commission's focus should be on making sure the communications infrastructure is maintained.

**8. Given the rapid change in the competitive market for communications networks and services, should the Communications Act require periodic reauthorization by Congress to provide opportunity to reevaluate the effectiveness of and necessity for its provisions?**

It took sixty-two years to update the Communications Act of 1934 and 18 years after the last major re-write, Congress is barely inching toward another amendment of the Act. Meanwhile, innovation and convergence are taking place rapidly in the communications markets raising the chance that after the next rewrite the industry will be a lot closer to the 22<sup>nd</sup> century while the Commission and Congress struggle with the changes they couldn't keep up with in the 21<sup>st</sup>.

Periodic updating may be ineffective given the uncertainty that partisanship introduces into the Congress. As I discussed prior, what would be best is for Congress to re-write the Communications Act with the flexibility needed to address changes in technology. That I admit is a tough task and may only be doable if the Act and the Commission did not focus on trying to predict what type of services or what platform services will be provided on in the future, but puts in place an adjudicative process that allows network providers to settle disputes while passing on consumer complaints to the Federal Trade Commission. The Commission's focus should be on making sure the communications infrastructure is maintained.

STATEMENT OF EVERETT M. EHRLICH  
PRESIDENT, ESC COMPANY and  
SENIOR FELLOW, PROGRESSIVE POLICY INSTITUTE

Submitted to the House Committee on Energy and Commerce

June 12, 2014

I am writing with regard to your call for comment on “Competition Policy and the Role of the Federal Communications Commission,” following your May 19 announcement.

The central question in the Internet policy debate as it now stands is, whose preferences will guide the development of the broadband Internet – those that results from the interaction of producers and consumers, or those of planners and advocates? The usual presumption in response to such a question is to favor markets, for a host of reasons economists commonly understand and to which they subscribe. But the exception is that of “market failure,” most commonly that of market power.

The allegation that the broadband market is “uncompetitive” from this perspective and, therefore, worthy of regulation that would otherwise be considered intrusive (specifying that all product must be on one quality, as does “net neutrality,” or that all investment must be shared at government-determined prices, as does “common carriage) is based on the relatively small numbers of competitors in this market. But the relatively small number of wired and wireless broadband providers in and of itself does not mean that the market does not produce the same outcomes as would a conventionally competitive one.

I believe this is true for two reasons. First, unlike the traditional “monopolist or “oligopolist” in economic theory, broadband providers do not confront ever-rising costs of production as output expands (marginal cost). This is important for the following reason. Traditional monopolists, or firms with market power, support the higher prices they charge because the costs of expanding output continually rise. So by forgoing expanding output – colluding to restrain it – oligopolists avoid producing additional units of output that would degrade profits.

But in the broadband world, additional units of output generally *increase* profits, because all broadband systems, fixed and wireless, have very high fixed costs. Once the system is created, the incremental cost of adding another user is relatively small. Thus, producers seek to increase subscribers in order to amortize these fixed costs over a larger base and increase profit. It is the *opposite* of the behavior economists associate with oligopoly or, more generally, excessive market power.

The second reason is that we often fail to recognize *who* is competing. Proponents of “dynamic competition” recognize that the behavior of companies that are “not” in the broadband industry often have the same result as do the behaviors of companies that are inside-the-lines.

Let me give a concrete example. Voice recognition on mobile phones is far from a new technology – voice recognition has been around for a while. But it is only appearing now because the providers of wireless signal have innovated sufficiently to support the real time interaction of the user and the “cloud” in which voice recognition software is housed. (You didn’t think that SIRI resided on your phone, did you?) So the innovation by connectivity providers has allowed innovation by device manufacturers, with the result being that the devices essentially capture the value created by the connectivity providers. The same pattern can be found in apps, services, and content creation – connectivity providers create value that is usurped by downstream competitors, who claim a larger share of the integrated value “pie” of the broadband experience.

At the end of this note, I will refer the committee to a paper I recently wrote that was released by the Progressive Policy Institute today. One of its conclusions was that the companies in the Fortune 500 that *use* the Internet – device manufacturers such as Apple, content providers such as Viacom, service providers such as Google or Ebay – have profit margins, both on sales and assets – that are six-to-eight times the margins of companies that *provide* the Internet, from AT&T and Verizon to Frontier and Level3.

Thus, if profit margins are a legitimate indicator, then the “market power” issue does not concern *providers*, but the “downstream” companies instead. When Verizon innovates, Apple and Facebook gain in value and capture the value created. Thus, simply looking at “how many providers” there are in broadband won’t explain the results we see in markets.

But if that’s the case, then what is the guideline for policy? In a broad sense, it should be “behavior.” At one level, that includes predatory behaviors such as price discrimination or other practices that indicate undue market power. Yet a more fundamental issue is whether the broadband market is producing the outcomes we would expect from a competitive market:

- Are broadband speeds improving reasonably, both over time and relative to other advanced nations?
- Is broadband in a wide sense affordable given its costs?
- Is investment capital flowing into the sector at adequate rates? Is it supporting the multi-modal nature of the U.S. market?
- Are the profits of broadband providers, measured as a return to invested capital, reasonably near “normal,” or are departures from the norm explained by innovation?

In the PPI paper, references above, I provide the best answers available to these questions. I refer you to: <http://www.progressivepolicy.org/2014/06/the-state-of-u-s-broadband-is-it-competitive-are-we-falling-behind/>

These criteria suggest an *ad hoc* approach to the issue, but the unique and dynamic quality of the market may leave us with no workable alternative.

Finally, I disagree with the idea that the FCC should be an anti-trust enforcement agency. Rather, I would have the FCC make a formal and public recommendation to the FTC and Justice Department regarding their views on specific anti-trust matters, giving them an opportunity to raise issues in public but maintaining a center for anti-trust policy in the government.

Many thanks for allowing me this opportunity to comment.

Everett M Ehrlich

[REDACTED]  
[REDACTED]

Chairmen Upton and Walden:

The value of the Internet to Florida's aging population cannot be understated. From staying in contact with family and friends, to monitoring their health with their doctors, the Internet has opened the door to new possibilities.

Getting to where we are today took considerable investment and innovation, but to keep that flowing in the future, antiquated communications policy must be modernized. For that reason, I'd like to thank you for the effort that you're leading to examine the current law and update it in a way that will allow the Internet to continue to flourish while paving the way for – rather than discouraging – the next transformative technology revolutions.

Please see below for the op-ed that I wrote on this very issue. It was recently published by the *Gainesville Sun* and *Palm Beach Post*.

Thank you for your consideration.

Sincerely,

Austin Curry  
Executive Director  
Elder Care Advocacy of Florida

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**Communications reform should be on seniors' radar**

Published by the [Gainesville Sun](#) on May 30, 2014

Ask Florida seniors to name the federal legislation of the last 100 years that has the greatest impact on their lives today, and putting the Affordable Care Act aside, chances are most of us would mention the Social Security Act of 1935 or the law creating Medicare in 1965.

Few, if any, would mention the Communications Act of 1934.

No surprise there. Few Americans of any age fully understand this 80 year old law that was updated in 1996 still sets the rules of the communications market in America today. So as Congress begins its work to modernize the act, older Americans have a big stake in the outcome.

A successful update of the act would assure the continuation of a healthy, competitive market that offers constantly improving Internet speeds and services at affordable prices. And don't believe the myth that these digital age services are irrelevant to older Americans.

The Internet and new technologies and applications driven by broadband connectivity are becoming more and more a significant part of seniors' lives. That's well documented in a comprehensive study from the Pew Foundation.

For the first time, more than half of older adults are Internet users. Nationwide, 57 percent report going online and 47 percent have home broadband connections. Online seniors also tend to be active Internet users, with over 70 percent going online every day. This promising trend shows great progress, but clearly there's still work to be done to boost these numbers even higher.

The best way to drive adoption rates among older adults is to make the value proposition clear through new and innovative uses of technology that will better the lives of older Americans.

For example, even seniors who have zero interest in sending an email or surfing the web have a profound vested interest in another aspect of broadband technology – online home health care. Systems in use right now can monitor a patient's condition at home and automatically send an alert to the doctor if a problem is detected. Broadband connections make it possible to remotely examine and sometimes even treat patients.

Broadband support like this can make the difference between keeping elderly people with chronic diseases at home connected with their families or going to nursing homes. It also offers some relief for our financially stressed health care system by reducing doctor visits and enabling better preventive care.

Innovations on that scale are driven by billions of dollars of private investment every year by Internet service providers. To keep that investment and innovation flowing, it's time to remove the antiquated regulations left over from the days of phone calls served up by the old Bell system monopoly. We need an environment with a careful regulatory approach that's applied evenly to all the players who operate online.

That's the goal of the members of Congress advocating to modernize the Communications Act. It's early in the game yet, but the effort is gaining steam. As an advocate of issues important to older Americans, Florida's senior Sen. Bill Nelson should take a leadership role as this process unfolds. As a senior member of the Senate Commerce Committee and a strong candidate to succeed Senator Jay Rockefeller (D-W.Va.) as chairman, Sen. Nelson will be a key figure in bringing this national policy up-to-date.

With his leadership, Congress may finally be able to seize this unique opportunity to modernize our outdated laws. A modern Communications Act will ensure we have the right framework for our evolving digital age – one that leverages technology to better the lives of older Americans and rapidly advances the role of mobile health care delivery.

*Austin Curry is executive director of Elder Care Advocacy of Florida.*

To whom it may concern,

Updating the communications act is vital to innovation. For instance, my company is only able to provide business tracking software to farmers because there is widespread access to high speed Internet. As you consider modernizing the Communications Act, please take into account the points I made in my op-ed in the Ann Arbor Journal. A smart policy framework will allow broadband to evolve with advancing technologies, bringing more connectivity to rural and urban areas alike.

Thank you,

Jesse Vollmar

Co-Founder & CEO

FarmLogs

<https://farmlogs.com/>

## **Future of Michigan's farms relies on universal Internet access**

October 24, 2013

**By Jesse Volmar**

Farming, like many other industries, is becoming more efficient and profitable than ever thanks to new Internet-based technologies. Considering agriculture is the second-largest industry in Michigan, this trend is good news for a state economy that is still working to recover from the recession.

But to ensure all farmers are able to benefit from the revolutionary changes in the industry, we need the private sector to continue to invest in the broadband infrastructure that will make high-speed Internet access ubiquitous across Michigan.

Today, farmers can use the Internet to get alerts on when rain is falling on their fields and follow market trends to find the best prices for their products. Wireless GPS devices allow them to easily navigate across thousands of acres of farmland, giving them the ability to better allocate time and resources.

All of these advances allow modern farmers – whether they are large or a small farm – to produce

on a scale that could not have been imagined just a generation ago.

New software is also disrupting the inefficient ways in which farms have traditionally been managed. Cloud-based solutions, such as my company's FarmLogs, allow farmers to fine-tune their operations to save time and maximize profits.

Additionally, while farmers are unable to control the weather, new Internet technology can now pinpoint exactly how much rain each field has received over the course of the growing season. This level of detail helps farmers better understand how to manage each field for the best yields.

With agriculture accounting for \$91.4 billion in annual economic activity here in Michigan, these profit-maximizing innovations are particularly essential to our state's farmers.

Unfortunately, there is still much work that needs to be done to bring all Michigan farmers into the fold. A recent report by the National Agricultural Statistics Service shows that 33 percent of Michigan farmers do not have Internet access, which means they are relying on antiquated methods at a time when adopting new technology is vital for staying competitive.

To close this digital divide, we need continued private sector leadership. Since 1996, the private sector has invested more than \$1.2 trillion in wired and wireless broadband infrastructure. While 90 percent of Americans used dial-up as recently as 2000, today more than 80 percent of homes can access speeds of 100 megabits per second.

These investments are directly responsible for the large increases in broadband availability we've already seen. In the past two years, Internet accessibility for farmers has increased from 62 percent to 67 percent here in Michigan.

As the world's demand for food production continues to grow, the Internet will carry farming into the future. Now we need to ensure that farmers can access the broadband that will grow their businesses and strengthen Michigan's economy.

Jesse Vollmar is the co-founder and CEO of FarmLogs.

June 13, 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 Chairmen Upton and Walden,

Broadband technology has enabled many changes that would not have been possible just 15 years ago, including having a huge impact on what the 21<sup>st</sup> century definition of a “workplace” can be. Working from home on a dial-up connections meant little could be accomplished. However, because of broadband, working from home is not only possible; it is practiced throughout the U.S and is projected to include [43% of US workers by 2016](#) according to Forrester Research. With this in mind, the goals of the House Energy and Commerce Committee to update the Communications Act are necessary and they will improve access and adoption of broadband throughout the country. As broadband continues to improve, the opportunities for millions of Americans to telework as part of their jobs will become the norm, not the exception, having huge potential benefits for our country’s economy, infrastructure, environment, and citizens.

The current Communications Act barely references the Internet. It also silos different technologies like voice, video and information services. However, today most of these services are transmitted over the Internet and are generally indistinguishable. In the past, cable transmitted television and phones transmitted voice; on modern networks, video, voice and data can be sent over phone lines, cable, satellite, wireless and fiber optics. The market is no longer segmented; it is vibrant and competitive across companies and technologies. Communications technologies should be treated equally with flexible regulations that allow the most efficient technologies to adapt and evolve.

We have seen great improvements in broadband networks over the past 15 years due to investments by private companies. In fact, a study by the Progressive Policy Institute, which I cited in my attached op-ed, shows that the broadband industry ranks among the top contributors of infrastructure investment in the country. Updating the Communications Act will drive even more investment to our broadband networks.

Attached, please find an op-ed I wrote for Boulder’s Daily Camera. It addressed how broadband paired with telecommuting removes traditional barriers to employment, making America’s workforce more efficient. I hope my comments have been helpful in your process of rewriting this legislation. Please feel free to reach out to me with follow up questions.

Sincerely,  
Sara Sutton Fell  
Founder and CEO  
FlexJobs  
1630A 30th Street, Suite #425  
Boulder, CO 80301  
<http://www.flexjobs.com/>

# Daily Camera

Broadband removes barriers to work

**By Sara Sutton Fell**

[http://www.dailycamera.com/guest-opinions/ci\\_24533029/broadband-removes-barriers-work](http://www.dailycamera.com/guest-opinions/ci_24533029/broadband-removes-barriers-work)

POSTED: 11/17/2013 01:00:00 AM MST

Telecommuting helps professionals transcend geographical barriers to employment by connecting them with companies hundreds or thousands of miles away. This means more job opportunities for people, and wider talent pools for companies. However, it's vitally important to remember that working remotely is only possible for those who have access to a robust broadband network. In Colorado, where I live and work from my home, thousands still don't have access to high-speed Internet.

Historically, professionals needed to live physically close to their jobs in order to work Monday through Friday. High-speed Internet has helped change this dynamic by allowing a person to be accessible from almost anywhere, across time zones and outside of traditional working hours.

While some people may prefer to be less connected, the reality is these changes have significantly expanded opportunities and created flexibility for many Colorado workers. At a time when the economic recovery is still fragile, this flexibility is critical to getting people back to work or keeping them in their jobs.

If telecommuting is an option, parents no longer have to worry about uprooting their families. When a child is sick, parents can stay home to care for them without having to be concerned about repercussions at the office. And if the parent is sick, they can stay out of the office and avoid spreading their illness to coworkers.

While some worry that telecommuters are less productive, the opposite is actually true. Thanks to broadband-enabled tools like video conferencing, email and shared documents, employees can accomplish tasks as easily as their counterparts located in an actual office. And studies by Stanford University and others have shown remote workers are more productive than their in-office coworkers.

The economic benefits of telecommuting are substantial as well. On average, companies save \$20,000 for each full-time remote work employee, and those workers save about \$8,400 per year personally.

But the only way for all Americans to benefit from telecommuting is if there is universally available high-speed Internet. Unfortunately, in Colorado, there are still thousands of households that cannot access speeds of even 3 megabits per second (Mbps).

Considering Colorado's unemployment rate remains at 7 percent, we need to end this digital divide and empower every citizen to take advantage of remote work opportunities.

The good news is private sector leaders are constantly investing in next-generation wireless and wired broadband infrastructure. A recent report by the Progressive Policy Institute showed that in 2012, the nation's top six telecommunications and cable companies invested more than \$50 billion to improve our country's broadband networks.

While 90 percent of Americans used dial-up in 2000, broadband speeds capable of 100 Mbps are now available to around 85 percent of U.S. homes. These lightning-fast speeds are the key to allowing for remote working in a way that makes having a physical office nearly obsolete.

As we continue to work our way out of the recession, it's essential that we continue to encourage investments that will improve broadband speeds and access. As more professionals can get online, more will be able to take advantage of remote work opportunities, and the better off thousands of Colorado families will be.

*Sara Sutton Fell is the Founder and CEO of FlexJobs. She works from her home office in Boulder.*

## Net neutrality: A web of deceit

Reuters by Steve Forbes, June 9, 2014

<http://blogs.reuters.com/great-debate/2014/06/09/net-neutrality-a-web-of-deceit/>

Special-interest groups are calling for public-utility regulations to be placed on the Internet — the most innovative and society-shaping deregulatory success story of our time. These people are trying to exert control over the Internet through “net neutrality” regulations that will likely benefit only a few huge Internet companies and the top 1 percent of Internet users.

Net neutrality was developed to ensure that Internet users had the freedom to view all the legal content they wanted. Recently, however, there has been a shift in focus: Some of the largest Internet companies are citing “net neutrality” as a reason to enshrine specific privileges that largely benefit them.

If these content companies get their way — and the Federal Communications Commission is now deliberating this — Americans will be forced to shoulder the costs for the high-speed networks and infrastructure upgrades needed to support high-volume Internet traffic generators, such as Netflix. Whether they use those services or not.

The math is simple. As a network carries more traffic, it has to grow or it will become congested. To expand a network requires significant investment and expense — tens of billions of dollars a year in the case of Internet service providers (ISPs).

These costs can be recovered in two ways: Either by charging all consumers equally or by having the large companies that use far more of the network resources pay their fair share.

In the real world it is reasonable and even expected that people pay more for a resource they use more than others. Under the guise of net neutrality, however, the large companies want everyone to pay more so that they and their users — the people consuming the bulk of the resources — do not have to.

Net neutrality advocates claim they are doing this for the good of the Internet and to protect future startups. But neither claim stands up to even the faintest scrutiny. They are both a cover for a bold-faced attempt to force the many to subsidize the powerful few.

The only way the Internet can thrive is if all parties have incentives to improve — and more efficiently use — our high-speed networks. If Internet service providers are forced to serve as mere intermediaries, carrying content for other large companies, there will be little motivation for them to invest in their networks and foster innovation. Similarly, there will be no incentive for the heavy-traffic-generating companies to develop new ways to reach their consumers.

As for the small companies and startups that the proponents of Internet regulation are allegedly trying to protect, they are the ones who benefit from the kinds of creative network arrangements now available in the absence of Internet regulations. These arrangements differentiate them from the larger, more established companies who have developed their own ways to provide faster service to their consumers built on existing service provider networks.

No startup or new-market entrant can afford to spend considerable resources on their own global networks. That's why the arguments from the large-content providers are self-serving: They have preferred access to consumers and want to keep it that way.

Contrary to the claims from those who are now most vocal in calling for 1930s "common carrier" regulations — dating from the age of the telephone-monopoly — be placed on the modern Internet, their true aim is to ensure that a small handful of companies do not pay their share.

Though that may be a successful, if questionable, business model for them, they risk subjecting the Internet to stifling regulations that will deter the long-term investments needed to power our Internet economy.

Regulators at the FCC and those on Capitol Hill who support the large content companies should be able to recognize this masquerade — and abandon any effort to impose public utility regulations on the Internet.



**Response to Questions in the Third White Paper**

**"Competition Policy and the Role of the  
Federal Communications Commission"**

**by**

**Randolph J. May, President, The Free State Foundation  
Seth L. Cooper, Adjunct Senior Fellow, The Free State Foundation**

**and**

**Members of the Free State Foundation's Board of Academic Advisors:**

**Richard A. Epstein, New York University Law School  
Justin (Gus) Hurwitz, University of Nebraska College of Law  
Daniel Lyons, Boston College Law School  
Bruce M. Owen, Stanford University  
James B. Speta, Northwestern University School of Law  
Christopher S. Yoo, University of Pennsylvania Law School**

**before the**

**Committee on Energy and Commerce, U.S. House of Representatives**

**June 13, 2014**

# **Response to Questions in the Third White Paper**

## **"Competition Policy and the Role of the Federal Communications Commission"**

**by**

**Randolph J. May, The Free State Foundation**  
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### **I. Introduction and Summary**

Once more we commend the Committee for undertaking this effort to review and update the Communications Act. As we have stressed in our prior Responses to the Committee, this reassessment is necessary because the Communications Act needs updating.

We agree with the Committee's characterization in its Third White Paper that takes proper account of both the technological advances and dramatic marketplace changes. In much the same language used in the Free State Foundation's First Response to the Committee, the Third White Paper explains:

The evolution of technology from analog to digital and narrowband to broadband has brought about the integration of voice, video, and data services across multiple platforms employing various technologies. The ongoing shift away from single-purpose technologies toward Internet Protocol packet-switching has rapidly called into question the adequacy of the current Communications Act and the

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\* While the signatories to this Response are in general agreement with the views expressed in these comments, their participation as signatories should not necessarily be taken as agreement on every aspect of the submission. The views expressed should not be attributed to the institutions with which the signatories are identified.

monopolistic assumptions on which it is based.<sup>1</sup>

This statement is an accurate characterization of the profound transformation that has occurred in the communications marketplace. As the White Paper states, it is against this backdrop that “an examination of competition policy and the Communications Act is warranted as part of its ongoing update efforts.”<sup>2</sup> In order to enhance overall consumer welfare, a new Digital Age Communications Act must be crafted in a way that requires the FCC to take into account the existence of the increasing cross-platform, facilities-based intermodal competition that characterizes the digital environment. The Committee’s Third White Paper presents a number of specific and overlapping questions on competition policy. The tenor of the questions makes it clear that the Committee is especially interested, as it should be, in the role that the existence of intermodal competition should play in assessing overall market competitiveness and in formulating regulatory policy.

The generalized framework presented in this response will offer a holistic response to these separate but interrelated questions. This approach fits with our central theme that facilities-based, cross-platform intermodal competition, enabled by the rise of digital and Internet Protocol-based services, has yet to be sufficiently taken into account by the FCC in its decision-making. While new technologies continue to emerge and older technologies evolve in unpredictable ways, at present the communications marketplace is impacted positively by competition among cable firms, telephone companies, satellite operators, fiber providers, and various sorts of wireless companies, each employing their own facilities. In order to encourage the further development of intermodal platform

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<sup>1</sup> “Competition Policy and the Role of the Federal Communications Commission” (“Third White Paper”), House Commerce Committee, at 1.

<sup>2</sup> Third White Paper, at 2.

competition on a long-run sustainable basis, the Commission must avoid adopting policies that, in effect, seek to “manage” competition through resale and sharing mandates. What is needed in its place is a consistent, principled competition policy framework premised on facilitating free entry and exit as the basic rule, which should then be qualified by targeted *ex post* remedies rather than by prescriptive *ex ante* regulation.

Stated otherwise, a combination of rapid technological innovation, consumer choice, and disruptive changes in the communications market has altered forever the traditional competitive landscape. These profound structural and technological changes point to the need for a competition policy that leaves free from government regulation those market processes that continue to propel further innovation and competition for new services. Regulatory intervention is only warranted in instances where there is convincing evidence of a market failure that is likely to harm consumers. Absent such evidence of market failure, service and product suppliers should be free to exercise their informed business judgment in an entrepreneurial fashion. Their success will be shaped by how an ever more sophisticated generation of telecommunications consumers respond to their business offers. The interaction of both sides of the market place will outperform any effort by the FCC to chart through government design the direction of future innovations in the ever larger and more complex Internet marketplace.

To this end, under a revised Communications Act, FCC oversight of the modern communications marketplace should be conducted pursuant to a consumer welfare-based standard that relies heavily on antitrust-like microeconomic analysis. That is, the FCC’s competition policy should be oriented toward the economically productive and efficient

processes by which market participants bring innovative products and services to consumers and respond to changing consumer demands, rather than to any preconceived notions by government officials concerning the shape of the market or the terms and conditions under which services may be offered. From an institutional standpoint, the FCC's competition policy should be geared much more toward *ex post* adjudications than broad *ex ante* prescriptive rulemakings.

## **II. Competition Policy and Processes for a New Communications Act**

While a new Communications Act should not direct the FCC to apply current antitrust precedents in a rigid fashion, it should require that FCC competition policy draw upon the insights of antitrust jurisprudence for purposes of analyzing what kinds of market practices poses competitive issues. As the Free State Foundation scholars stated in their First Response, adherence to these antitrust-like jurisprudential principles would properly require the FCC to engage in a rigorous economic analysis of market conduct that focuses on actual and potential competitive effects of various firm practices, technologies, and innovations. Such analysis would necessarily take into account the impact of the dynamism – and the “creative destruction”<sup>3</sup> – that characterizes the digital marketplace.

Regulatory prohibitions and sanctions under the new Communications Act should generally be accomplished through focused adjudicatory proceedings. The filing of individual complaints, whether by consumers or market rivals, should contain specific allegations of abuse of market power. The burden should rest on complainants to demonstrate the need for regulatory intervention by clear and convincing evidence of anticompetitive conduct and its likely resulting harm. Any regulatory intervention by the

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<sup>3</sup> See Joseph A. Schumpeter, *Capitalism, Socialism and Democracy* 87 (3d ed. 1950).

FCC should thus normally be tied to a finding of a threat of market power abuse and a concomitant threat of consumer harm. Furthermore, due to the dynamism that characterizes the modern communications marketplace, these allegations of market failure should show more than some transitory failure that can be met by targeted responses of other market participants. Therefore, any allegations of market failure should be "non-transitory" in order to trigger a Commission response.<sup>4</sup>

Adoption of a competition policy based on a consumer welfare standard grounded in antitrust-like principles necessarily means discarding the indeterminate public interest standard. As already explained further in FSF's Response to Questions in the First White Paper,<sup>5</sup> the current public interest standard confers almost unbridled discretion on the agency without sufficient direction from Congress.<sup>6</sup> The public interest standard is a vestige of monopoly-era assumptions that unwisely assume regulatory intervention as the norm. As we explain below with a few specific examples, this traditional approach places high hurdles to obtaining deregulatory relief even when market conditions have introduced effective competition. Under a revised Communications Act, competition policy should place the burden on the FCC to demonstrate the necessity of regulatory intervention to address market power concerns that threaten harm to consumers.<sup>7</sup>

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<sup>4</sup> See Randolph J. May and James B. Speta, "Digital Age Communications Act," Proposal of the Regulatory framework Working Group, Progress & Freedom Foundation, June 2005.

<sup>5</sup> Free State Foundation Response to Questions in the First White Paper, "[Modernizing the Communications Act](#)" (January 31, 2014).

<sup>6</sup> Randolph J. May, *The Public Interest Standard: Is It Too Indeterminate to Be Constitutional?* 53 FED. COMM. L. J. 427 (2001).

<sup>7</sup> See Randolph J. May, "[A Modest Proposal for FCC Regulatory Reform: Making Forbearance and Regulatory Review Decisions More Deregulatory](#)," *Perspectives from FSF Scholars*, Vol. 6, No. 10 (April 7, 2011); Randolph J. May, "[The FCC's Net Neutrality Proposal: The Wrong Way to Use Regulatory Presumptions](#)," Free State Foundation Blog, June 4, 2014.

Application of a marketplace competition standard would make it easier for communications companies to develop ideas and bring new products to market without first having to gain government approval. An *ex ante* regulatory regime that operates mainly through rulemaking inhibits spontaneous innovation and investment by imposing heavy entry barriers on new technologies. Under such a regime, entrepreneurs may feel compelled to submit new services or products to the Commission for review or face the threat of subsequent litigation and sanctions over their lawfulness. An *ex post* process, operating under a proper competition standard, would encourage businesses to bring new services and products to the marketplace without seeking prior regulatory approval.

Establishing a regulatory construct for the FCC favoring *ex post* adjudications necessarily means transforming the FCC into more of an enforcement agency that operates much more like the Federal Trade Commission, at least with regard to competition issues. This transformation does not mean that the FCC necessarily should be precluded from adopting generic rules that define, in advance, certain specific acts or practices that constitute threats of abuse of market power because they cause consumer harm. But such rulemaking authority should be circumscribed by incorporating as a precondition for adoption of a new rule the market failure and consumer harm analysis discussed above.

To be sure, there are some specific but limited areas where the FCC may be granted express rulemaking authority. For example, the FCC should have carefully delineated authority to address interconnection practices that might pose significant consumer harm if the agency finds that marketplace competition is not adequately

protecting consumers.<sup>8</sup> This authority is peculiarly appropriate because hold-up problems can easily arise in complex settings that only function well when all carriers, regardless of size or content, have to gain unqualified access to all users of the Internet. Spectrum provides another example where the FCC rulemaking authority may be needed to address interference issues or other technical matters. It should be stressed, however, that the same basic consumer welfare and antitrust-like competition principles should inform the FCC's exercise of its rulemaking authority in these areas. As explained in FSF's Response to the Second White Paper,<sup>9</sup> spectrum policy should transition from a command-and-control model to a property rights-based approach. Consistent with this paradigm shift, FCC spectrum policy should emphasize flexibility that allows service providers to respond to marketplace changes without having to endure onerous government processes used to reallocate of spectrum across different uses.

Any FCC rules based on competition policy should sunset automatically after an appropriate period of time, say, five years. However, the FCC could be allowed to extend such rules if it affirmatively finds, based on clear and convincing evidence, that there is a market failure that necessitates continuation of the rules to prevent consumer harm.

### **III. Intermodal Competition: Policy and Process Implications**

Under a new Communications Act, FCC competition policy and agency processes should comport with the realities of increasing facilities-based intermodal competition

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<sup>8</sup> See note 5 *infra*. Parties to an interconnection dispute should be required to engage in some form of dispute resolution process such as mediation prior to seeking FCC decisional intervention. And if it proves necessary for the Commission to intervene to resolve the dispute, the agency should avoid employing traditional administrative public utility-like proceedings in favor of more efficient processes such as baseball-style arbitration. See Randolph J. May, "[Testimony of Randolph J. May, President, Free State Foundation](#)," Hearing on "Evolution of Wired Communications Networks," Subcommittee on Communications and Technology (October 23, 2013).

<sup>9</sup> "Free State Foundation Response to Questions in the Second White Paper," (April 25, 2014).

across digital platforms, and they should promote the continued development of facilities-based competition. Too often in the past, for example during the Commission’s years-long Unbundled Network Elements (“UNE”) proceedings, the agency adopted regulations requiring various forms of network unbundling and facilities sharing. This has been done with the notion that such mandated sharing increases competition, but it generally doesn’t accomplish this purpose. Instead, such policies necessitate the existence of an ongoing regulatory program in which the government sets the rates, terms, and conditions under which the unbundled and shared services must be offered. When the required unbundling is excessive, or the regulated sharing price set too low, the new entrant is able to game the system by purchasing elements at bargain rates. Yet if the rates are set too high, the new entrant can resort to market alternatives. FCC policies must guard against the creation of these free options. Yet at the same time, with respect to unique essential facilities, it is critical not to set rates in ways that block new entry.

Many of these issues surfaced in *AT&T v. Iowa Utilities Board*, where the Supreme Court reviewed the FCC’s implementation of the network unbundling requirement in the Telecommunications Act of 1996.<sup>10</sup> In invalidating the Commission’s UNE rules, the Court concluded that the agency had interpreted the statutory unbundling standard so loosely that it wrongly gave the sharing beneficiaries “blanket access” to the incumbent carriers’ networks.<sup>11</sup> Justice Breyer’s separate opinion emphasized the ultimate harm to competition caused by the FCC’s rules requiring excessive sharing:

Increased sharing does not by itself automatically mean increased competition. It is in the unshared, not the shared, portions of the enterprise that meaningful competition would likely emerge. Rules that force firms to share every resource

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<sup>10</sup> 525 U.S. 326 (1999).

<sup>11</sup> *Id.* at 390.

or element of a business would create not competition, but pervasive regulation, for the regulators, not the marketplace, would set the relevant terms.<sup>12</sup>

After the Supreme Court's rebuke in *Iowa Utilities Board*, the FCC tinkered with its network unbundling rules before the revised version came back before the D.C. Circuit for review. In *U.S. Telecom Ass'n v. FCC*,<sup>13</sup> the UNE rules were once again invalidated for requiring excessive sharing. As Judge Williams explained, referring to Justice Breyer's *Iowa Utilities Board* opinion, "each unbundling of an element imposes costs of its own, spreading the disincentive to invest in innovation and creating complex issues of managing shared facilities."<sup>14</sup>

All too often, the FCC has failed to grasp this fundamental point. When revising the Communications Act, the goal, as Justice Breyer put it, must be to foster "meaningful competition," not to unwisely maintain "pervasive regulation." And this requires observance of a proper competition standard, such as we have suggested, that favors investment in new facilities over mandated sharing of existing facilities. Under such a proper standard, older technologies can be adapted to new purchases. It was commonly thought as late as 1996 with the passage of Telecommunications Act that local exchange carriers would be able to maintain a bottleneck position for the foreseeable future. Within a few years, it became clear that cellphone technology, VoIP, and the Internet could provide viable alternatives. Regulatory policy will always go down the wrong path if it

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<sup>12</sup> Id. at 428 – 429.

<sup>13</sup> 290 F. 3d 415 (D.C. Cir. 2002).

<sup>14</sup> Id. at 427.

ignores the dynamic forces that constantly undercut the creation and maintenance of services monopolies.<sup>15</sup>

Still tied to the silo structure mindset that subjects various services to disparate regulatory requirements, the FCC to date has shown too little interest in evaluating intermodal competition. This lack of interest is perhaps most pronounced when it comes to the substitutability of wireless services for wireline in relation to the overall competitive dynamics of cross-platform rivalry. The FCC has declined to undertake any meaningful analysis of intermodal competition between wireless service and wireline in its *Wireless Competition Reports*.<sup>16</sup> Its *Qwest-Phoenix MSA Order* (2010) and subsequent forbearance orders effectively have rejected cross-platform competition from wireless voice services by imposing a heavy presumption against the substitutability of wireless for wireline.<sup>17</sup> This despite the significant and predictable observable losses in wireline market share to wireless. It is striking that during the first half of 2013, 39.4% of households did not have a landline telephone but did have at least one wireless phone.<sup>18</sup> Just 17 years after passage of the 1996 Telecommunications Act, the FCC's *Local Telephone Competition Report* states that, as of December 2013, the number of wireless

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<sup>15</sup> See, for an early statement of this position, Harold Demsetz, *Why Regulate Utilities?*, 11 J.L. Econ. 55 (1968); Richard A. Posner, *Natural Monopoly and Its Regulation*, 21 STAN. L. REV. 548 (1999).

<sup>16</sup> See Seth L. Cooper "[Convergent Market Calls for Serious Intermodal Competition Assessments](#)," *Perspectives from FSF Scholars*, Vol. 8, No. 12 (May 2, 2013). The FCC has

<sup>17</sup> See Memorandum Opinion and Order, *In the Matter of Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160c in the Phoenix, Arizona Metropolitan Statistical Area*, WC Docket No. 09-135 (June 22, 2010). See also note 3, *infra*.

<sup>18</sup> See Stephen J. Blumberg, Ph.D., and Julian V. Luke, "[Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, January-June 2013](#)," Division of Health Interview Statistics, National Center for Health Statistics, Centers for Disease Control and Prevention (released December, 2013).

subscriptions – 305 million – is now *more than three times* the number of wireline access lines – 96 million.<sup>19</sup>

Similarly, in its *Video Competition Reports* the FCC continues to disregard online video as a cross-platform competitive substitute for multi-channel video programming distributor (MVPD) services – even as Netflix has mushroomed into the nation’s largest distributor of video program with over 33 million U.S. subscribers, more subscribers than than Comcast and the two satellite TV distributors have.<sup>20</sup> Indeed, almost 50% of U.S. households now subscribe to Netflix or one of the other leading online video distributors, such as Hulu Plus or Amazon Prime.<sup>21</sup> This discounting of the rapidly growing online video distributor market segment in competitive assessments is unwise. It comes on top of the FCC’s continued indifference to intermodal competition from direct broadcast satellite (DBS) providers and telephone company entrants into the MVPD services market. All told, such multiplatform competition has reduced cable providers' share of the multi-channel video market to 55.7% by the end of 2012, down from approximately 60% in 2010.<sup>22</sup> Yet, the video regulations of the early 1990's were all wrongly premised on the faulty assumption that the market power of cable operators could be maintained for the indefinite future. One consequence of this unsound assumption was a raft of

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<sup>19</sup> See FCC, [Local Telephone Competition Report](#) (2013).

<sup>20</sup> See Seth L. Cooper, "[FCC's Video Report Reveals Disconnect Between Market's Effective Competition and Outdated Regulation](#)," *Perspectives from FSF Scholars*, Vol. 7, No. 25 (September 12, 2012).

<sup>21</sup> Janko Roettgers, "Close to Half of All U.S. Households Subscriber to Netflix, Amazon Prime or Hulu Plus, GIGAOM, June 6, 2014, at: <http://gigaom.com/2014/06/06/close-to-half-of-all-u-s-households-subscribe-to-netflix-amazon-prime-or-hulu-plus/>

<sup>22</sup> See FCC, [Fifteenth Video Competition Report](#), (2013). See also Seth L. Cooper, "[FCC Report Reconfirms the Reality of the Video Market's Competitiveness](#)," *Free State Foundation Blog* (July 25, 2013).

must-carry regulations, program carriage regulations, and video device regulations, all of which impose serious threats to operators' First Amendment rights.

Any new Communications Act should place intermodal competition at the center of the FCC's analysis of market competition. The explanatory power of static market indicators such as market concentration or market share is severely limited when dynamic markets characterized by innovation and disruption are under review.<sup>23</sup> Convergence of services and the emergence of new services resulting from the digital transition are testaments to the persistence of market dynamism. Competition between different communications platforms must inform the product and service market definitions to be used by the FCC as part of its analyses of market power and potential consumer harm, including, of course, the Commission's evaluation of the competitive impacts of mergers and other transactions that require agency approval.<sup>24</sup> And these intermodal competition considerations should be brought to bear in periodic reports on competition in the communications market – presumably through a reconstituted FCC report that combines its annual wireless, video, and other reports.<sup>25</sup>

Our central point is that the rise of intermodal competition dismantles the analytical underpinnings of the FCC's silo approach to communications services as a whole. As more fully explained in FSF's Response to Questions in the First White Paper,

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<sup>23</sup> See Dennis L. Weisman, "[On Market Power and the Power of Markets: A Schumpeterian View of Dynamic Industries](#)," *Perspectives from FSF Scholars*, Vol. 3, No. 5 (2008).

<sup>24</sup> There is an extensive literature on the need for reform of the FCC's transaction review process. And many scholars have suggested that, in light of the competition reviews undertaken by the Department of Justice or the Federal Trade Commission, the FCC's role should be limited to ensuring that the proposed transaction complies with all existing agency rules. This would eliminate the substantial duplication of effort that currently occurs when a proposed transaction is reviewed by both the FCC and the antitrust authorities.

<sup>25</sup> See Randolph J. May, "[Testimony of Randolph J. May, President, Free State Foundation](#)," Hearing on "Evolution of Wired Communications Networks," Subcommittee on Communications and Technology (October 23, 2013).

the various silos – whether denominated "telecommunications," "information services," "cable service," "mobile service," or so on – are primarily based on "techno-functional" constructs that do not comport with the realities of digital age technologies and service offerings and the way in which consumers perceive the choices available to them in the marketplace.<sup>26</sup> Technological transitions to all-digital and to all-IP services have furthered the integration and interchangeability of voice, video, and data services regarded as discrete and separate. Consumer expectations for a consistent interface and end-user experience across multiple platforms dictate the end of the prevailing "silo" approach.<sup>27</sup>

Convergence in spectrum applications, described in FSF's Response to Questions in the Second White Paper, offers yet another instance in which the silos created by Communications Act's Titles II, III, and VI have become increasingly obsolete. Promoting intermodal competition among different spectrum-based applications requires a reoriented analysis that is cut free from the legacy definitional constructs. A revised Communications Act should facilitate a vigorous competition policy that fosters entrepreneurialism by facilitating a flexible use, market-oriented regime. This market-based spectrum regime will allow spectrum resources to move easily to their highest and most valuable use, while simultaneously encouraging the development of new services and products.

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<sup>26</sup> See note 5 *infra*.

<sup>27</sup> As briefly summarized in the above section and addressed more fully in the Response to the First Paper, because consumer protection issues such as privacy and data security are form part of the FTC's institutional expertise, the FCC should surrender its jurisdiction over such issues to the FTC. See Randolph J. May and Seth L. Cooper, "[Any New Privacy Regime Should Mean An End To FCC Privacy Powers](#)," *Perspectives from FSF Scholars*, Vol. 7, No. 9 (April 5, 2012).

#### **IV. Conclusion**

As the Committee moves forward with its review and update process, including the evaluation of competition policy, we urge it to carefully consider and implement the views expressed in this Response.

June 2<sup>nd</sup>, 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, Competition Policy*

Dear Congressmen Upton and Walden:

I write in response to your request for comment on competition policy in the context of the update of the Communications Act.

I am Dr. Fernando Herrera-González and write from Spain, from where I do my best to follow such an important process as it is this of updating de Communications Act of 1934. We all know that communications policy has a global impact, and rules in the USA can have an impact in Europe and vice versa.

I have more than 20 years of experience in telecommunication regulation achieved working both for operators, regulatory agencies and consulting firms. Currently, I work as Regulatory Economic Manager at Telefónica S.A. Previously, I served as Deputy Director at Spanish Telecommunication Regulatory Authority and as Senior Consultant at Accenture. I chaired for two years the SMP Working Group of the European Regulators Group, and have participated in cooperation projects with several European Telecommunication Authorities.

With regard to my academic background, I hold a PhD. In Telecommunication Engineering and an MsC in Economics. I was granted the Victor Mendoza 2012 Award for Best Thesis by the Instituto de Estudios Económicos (Madrid, Spain). My thesis has been published (in Spanish) by the same Institute with the title "*Myths of Regulation for Competition*"<sup>1</sup>. I have also published in several peer-reviewed journals, being possibly the first author to quote Ludwig von Mises in a journal related to telecom policy.

Moreover, I contribute regularly to the Ludwig von Mises Institute (Auburn, AL), a think-tank which promotes the teachings of the Austrian School of Economics. You can check my contributions here. Most of them are related to Internet and telecommunication regulatory issues.

<http://mises.org/daily/author/1091/>

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<sup>1</sup> Herrera-González, F. (2011). *Mitos sobre la regulación para la competencia*. Instituto de Estudios Económicos, Madrid (Spain)

The views in this letter are my own.

With regard to competition policy, one of the key issues for the internet of the future is the existence of a level playing field between telcos and OTT (Over-The-Top) Providers. But there is a big temptation to achieve such a situation by imposing more regulation on OTTs. I think that would be a really bad idea, which could jeopardize the whole Internet ecosystem and the future of our Information Society. Not only that: my view is that the current asymmetric situation (at least, in the EU) is putting it at risk, by threatening the viability of telecommunication network and investments. Thus, my view is that OTT providers and telcos should have a level playing field, but by way of deregulating telco operators instead of by increasing the intervention on Internet.

Please see the attached article where I explain the above referred ideas.

I really hope you will find this helpful in your effort to reform the Act.

Thank you for your attention. Of course, you are welcome to contact me if you would like further clarification.

Sincerely,

Dr. Fernando Herrera-González  
Regulatory Economic Manager  
Telefónica S.A.  
Distrito Telefónica, Bldg. Oeste-2  
Ronda de la Comunicación, s/n  
28050 Madrid (Spain)

ENCLOSURE:

*Want a level playing field for telcos and OTTs? Try deregulating*

American Enterprise Institute, TechPolicyDaily. Com, May 20, 2014

<http://www.techpolicydaily.com/communications/want-level-playing-field-telcos-otts-try-deregulating/>

There is currently a sweeping debate in the EU about the need for a level playing field between telco operators and Over-the-Top service providers (OTTs). OTTs are agents that offer telecommunication services (such as telephony, texting, or TV) over basic data or Internet connectivity. Examples of widely known OTTs are WhatsApp, Skype, and Netflix. It is clear that OTTs compete head-to-head with telco operators in such services, and that as a consequence these operators [may lose a traditional revenue stream](#) which until now has sustained their business model.

Telco operators complain about OTTs not having to comply with the EU's strict and extensive regulation on issues such as user rights, antitrust, security, net neutrality or Significant Market Power (SMP) obligations. This, according to telcos, generates an uneven playing field where their new rivals have a significant advantage. So, understandably, they are [asking politicians](#) to level the playing field between the two kinds of agents.

At first sight, there are two basic ways to achieve a level playing field: 1) remove regulation on the telco sector, so that both OTTs and telco operators are unregulated, or 2) regulate OTTs in the same way as telco services. So, what kind of level playing field would most benefit consumers? In order to answer this question, let us first describe how value is created and then split between activities cooperating to provide a final service.

Let's start with the basics: How do things acquire economic value? The clear consensus among economists is that the value of a good is subjective. Goods only have value if they are able to satisfy the needs of individuals. In consequence, the source of value is always the end users, and, in principle, only those final goods which can directly satisfy the needs of individuals would have any value.

However, production of final goods always requires the use of inputs that are combined during the production process. These inputs (second order goods, following Carl Menger's terminology), are complementary in the sense that all of them are required to produce the final good. Of course, second order goods may themselves require a production process involving third order goods, and so on.

As higher order goods are required to produce the final good, the value of this final good induces value on those inputs. In other words, the goods of higher order also have value,

even if they cannot directly satisfy individual needs, because they are necessary to produce the final good, which in turn will satisfy the need. In sum, all the resources in the value chain have value, induced by the final good. The process of valuation recurs in the same way for upstream or higher order resources.

How is the value of final goods split among the different activities in the value chain? The starting point to understand this is the law of costs, which establishes that the value of the final good equals the sum of the values of the inputs used to produce it. Given the value of the final good, in a free market, the value of each activity in the value chain will be determined by its relative scarcity, i.e., the available amount of the good divided by production capacity and the alternative uses for it.

Before going on, let us turn for a moment to the relationship between value and price. Prices reflect the value of goods, but they are not the same. The only thing that can be said is that, in a free market, the value of a good for an individual will be higher than the price paid for it. If the resulting price of the good does not allow for the recovery of the prices paid for the required resources, then the production of the final good is not sustainable and, in a free market, it will be discontinued.

With this in mind, we can turn back to the value allocation for the activities in the value chain. If the price for any of the involved activities did not allow for the recovery of the invested resources, then this activity would disappear and the whole value chain would be unsustainable. So, the final allocation must be such that it allows for the sustainability of all required activities.

If one of the activities in the value chain is regulated in a way that artificially raises costs or reduces revenues (for example, with maximum prices), it is unlikely that this activity will be able to accrue its full market value. In this case, the value flowing to the regulated activity does not directly depend on the final good value, but on the regulated price.

This situation has several consequences:

1. *A bigger share of the final value flows to unregulated activities, than otherwise.*
2. *Productive factors required to perform the regulated activity lose value.*
3. *The production of the regulated good may become unsustainable. For example, some production factors may find more profitable uses in other activities (not necessarily in the value chain under analysis) and be redirected towards them.*

This situation is precisely what is happening on the uneven playing field in the Internet value chain, because telco activities are heavily regulated while OTT activities are much less so, or not at all.

Thus, the effects described above are occurring. In short, the lack of a level playing field has two basic effects:

1. *Transfer of wealth from regulated to unregulated activities, i.e. from telco operators to OTT providers.*
2. *Possible unsustainability of the regulated activities and, in consequence, of the whole value chain*

This insight should be considered when deciding how to achieve the level playing field between telco operators and OTTs. Recall there are two basic options: 1) de-regulate the telco market or 2) apply the same regulation to OTTs and telcos. Both options will eliminate the transfer of wealth across the activities in the value chain, but only the first option is able to stop the second effect – value chain unsustainability. In fact, a level playing field achieved through regulation of OTTs would encourage the transfer of wealth from the Internet value chain to other economic sectors. In other words, telco operators would still lose value, not to other agents in the Internet sector, but rather to other completely different and possibly unconnected sectors. And OTTs would of course lose value.

What's more, it is very likely that, in view of the different business models of each of the activities in the Internet value chain, the same regulation will affect each activity in different and unexpected ways. This effect will make it more likely that any one of the activities – and thus the whole value chain – becomes unsustainable.

Even if a level playing field between telcos and OTTs seems fair to telco operators, the way ahead does not seem to be to advocate increased regulation of OTTs. In fact, a regulated level playing field would arguably be a worse solution than the current, because it would further remove resources from the entire Internet value chain.

On the other side, the lack of a level playing field [puts telco activities at risk](#), and by extension the OTT business as well. So, this imbalance, while it may be profitable for OTTs in the short term, is unsustainable for them too.

In sum, it seems that, from an economic theory perspective, the only level playing field compatible with telco, OTTs, and consumer interest in general is the unregulated level playing field. The problem is, of course, that European politicians are used to solving these kind of issues by increasing regulation, instead of by deregulating, so they end up creating

new problems that, in turn, need more regulation (mobile roaming regulation being a clear example). Let us hope that this time European politicians choose to break tradition.

June 3, 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*

I am an MA Fellow at the Mercatus Center at George Mason University and I just recently graduated with my masters in economics. Though I am only 23 years old, I am an example of someone who has grown up with the internet. I am co-authoring a paper on innovation, investment and competition in the American broadband industry and its impact on the digital economy and will be presenting it at the Telecommunications Policy Research Conference in September. I have spent the last several years analyzing the impact regulatory policy has on economic outcomes, most specifically in the communication industry.

Through my five years of studying economics, I have learned about different schools of thought. My conclusion is that democracy, though said to be the voice of the people, does not allow for individual's preferences to dictate winners and losers the way free-market capitalism does. While I can vote at 18, it doesn't mean my candidate will win. However, in a market, every individual matters. If I don't like the practices of a broadband provider, I do not have to purchase their services. If the market on broadband becomes heavily regulated, then I will be forced to buy from the companies that politicians support, even if I didn't vote for them.

The United States has a very competitive broadband market. Competition within any industry should not be defined by the number of competitors, but instead by the level of technology. Intermodal competition between DSL, cable, fiber and wireless providers is a checks-and-balances system, ranked #3 in the world by the OECD. However, we don't know how these technologies might combine in the future or what new technologies will emerge. As such, the Communications Act with its regulatory silos must go. It doesn't reflect reality or position America for network innovation in the future.

One of the most important aspects of regulatory policy that I have learned is the benefits of an ex post regime over an ex ante one. In other words, competition is almost always better than regulation. Regulation has inherent costs, so in competitive industries, of which telecommunications is, it makes more sense to wait for evidence of harm before acting. It brings to mind the old cliché, “If it ain’t broke, don’t fix it.”

Lately, certain Congressional representatives and federal spokespersons have used scare tactics about problems that could potentially occur if a market/industry is not heavily regulated. This is a form of manipulation of their public position that flies in the face of the evidence of the many capital intensive industries that have transitioned from sector-based regulation to competition regimes, including airlines and trucking. Communications is unquestionably competitive, and can now be governed by competition law, not sector-specific regulation.

In market-based industries, the consumer gets what he/she pays for. Not all cars are the same price, nor should broadband service be. Markets can correct themselves through competition, whereas regulations can only be corrected with more regulation. Additionally, consumers today are more empowered than ever. With social media tools such as Twitter and Facebook, consumers can bring a company to its knees.

Thank you for your consideration.

Sincerely,

Michael J. Horney  
MA Fellow, Mercatus Center



June 13, 2014

The Honorable Fred Upton  
Chairman  
Committee on Energy & Commerce  
House of Representatives  
Washington, DC 20515

The Honorable Henry Waxman  
Ranking Member  
Committee on Energy & Commerce  
House of Representatives  
Washington, DC 20515

The Honorable Greg Walden  
Chairman  
Communications & Technology  
Subcommittee  
Committee on Energy & Commerce  
House of Representatives  
Washington, DC 20515

The Honorable Anna Eshoo  
Ranking Member  
Communications & Technology  
Subcommittee  
Committee on Energy & Commerce  
House of Representatives  
Washington, DC 20515

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

Integra Telecom (Integra) appreciates this opportunity to respond to your Committee's questions regarding modernizing the laws governing the communications and technology sectors. Integra is one of the largest facilities-based providers of advanced networking, communications and technology solutions in the western United States. Integra has heavily invested in its own network infrastructure and owns and operates an enterprise-class network consisting of a 5,000-mile long-haul fiber-optic network, 3,000 miles of metropolitan fiber and nationwide IP/MPLS network, and connects directly to more than 2,200 enterprise buildings and data centers. In addition, through its Ethernet-over-copper footprint, Integra can deliver high-bandwidth services to more than 400,000 businesses. However, Integra would not have been able to grow its network or provide its high-bandwidth Ethernet-over-copper services without the market-opening provisions of the 1996 amendments to the Communications Act.

The most important of those provisions requires that incumbent LECs offer competitive carriers access to unbundled last mile connections and to interconnection on reasonable rates, terms, and conditions. These requirements make competition possible by preventing incumbent LECs from leveraging their dual roles as retail competitor and dominant wholesale provider of last-mile connections. Integra considers the competitive model established by the 1996 Act to be superior to the monopoly-based regulations that have existed in the past because competition yields increased investment, innovation and lower cost services while monopolies yield reduced investment, delayed innovation, and higher cost services.

Some argue that the regulatory framework within which competitive carriers like Integra operate today was enacted to address marketplace problems that no longer exist, but this is not the case. Despite an advance in competition, retail markets continue to be highly concentrated and for a vast majority of end user locations there exists a single wholesale option (the incumbent carrier) to reach those customers. Without the market opening provisions of the 1996 Act, which require interconnection and last-mile access, and a mechanism (State Public Utility Commissions) to enforce those agreements; competitors like Integra would be forced to

renegotiate interconnection and last mile agreements with former monopoly carriers unprotected by rules designed specifically to guard against those very same market dominant carriers.

Within that context we offer the following responses to you committee's inquiries.

## Competition

Characteristics of competitive markets include many buyers and sellers, vigorously competing with respect to products and price. For the most part, competition in communications markets was not allowed to exist in long distance markets until 1984 or in local markets until 1996. Throughout most of its history, AT&T and its Bell Operating Companies functioned as a legally sanctioned, regulated monopoly overseen by state and federal laws. The states and the FCC regulated every aspect of AT&T's protected service, including how much it charged and how much profit it earned. Neither business nor residential consumers had much choice regarding which company they might contract with, the products they might buy, or how much they might pay for the services they needed. That model began to fail with the onset of new technology and the desire of entrepreneurial competitors to compete against that monopoly system. Competition was introduced into the long distance market by breaking up AT&T and the Bell Operating Companies pursuant to an Antitrust Consent Decree. However, significant rules were left in place to protect developing competition in the new market and assure vibrant and fair competition.

In 1996, Congress sought to bring those benefits of competition to local markets by allowing anyone to enter any communications business and to let any communications business compete in any market against any other provider. Lawmakers were able to look back at the dysfunction of the monopoly-dominated industry, the lack of private sector investment, and the consequent stagnant innovation, as a model for what not to do. Consequently, in the 1996 Act, Congress prohibited states from protecting local monopolies, and diminished the barriers to enter the local market by requiring access to last mile facilities, and fair interconnection agreements -- which are preconditions for competition in the local market. This approach has proven successful. Since enactment of the 1996 Act, private sector investment in the communications industry has exploded, innovation in communications technology has flourished in every facet beyond expectations, and hundreds of new companies creating thousands of new jobs have been created to the point of redefining the communications sector of Wall Street.

A Congress looking back to 1996 must question why it would meddle in any respect with the fundamental market-opening principles of that law. Reviewing the past eighteen years, it is clear that competition, innovation and consumer choice has developed because of the market-opening requirements adopted in 1996. It is also clear that competition for a vast majority of consumers continues to rely upon interconnection rights and access to last-mile facilities. It should also be noted that the innovators and job-creators that brought competition to local markets after the 1996 Act did not do so without risk. As a result of the promise of competitive markets, hundreds of new entrepreneurial companies invested and continue to invest billions of dollars, much of which has been raised in private equity markets, to build network infrastructure such as local fiber, transport facilities, switches, and routers which has brought innovation and choice to end user customers. A modern communications marketplace should continue the fundamental interconnection and last-mile facility access policies of the 1996 Act or risk a pullback in investment and/or the demise of the very companies that created the industry surge of the past two decades.

## FCC Authority

The FCC has one of the broadest and most complex mandates of any federal administrative agency. Due to the uniquely pervasive nature of its long-held regulatory authority over interstate, international, and many intrastate communications services, the commission's rulemakings and decisions have been repeatedly challenged by companies, associations, coalitions, Congress and the courts throughout its eighty year history. Yet, the commission continues to strike a well-considered balance between its mandate to uphold the public interest and the rights of the parties it regulates even as those parties have radically changed their core positions on recurring issues.

Today, more than ever, the FCC's authority to promote competition and blunt anti-competitive behavior must remain in place. It has been argued that because some degree of competition exists in several markets, there's no longer a need to uphold the competitive policies of the 1996 Act in any market. But the reality is that the transition to self-sustaining, competitive markets is not complete. Though we have largely moved away from pure monopoly markets, competition remains highly concentrated and is at best, uneven – it has developed in some markets (such as Internet backbone services) while it has not developed in others (such as wholesale last-mile connections to business customers). The commission must retain the authority to apply pro-competitive policies in all markets. That authority must be flexible enough to adjust to specific market conditions which the FCC has the ability to do today.

Dominant providers have an incentive to seek premature elimination of market-opening competition policies. For example, almost from the minute the Antitrust Consent Decree was inked to settle the breakup of AT&T and divvy up the local monopoly markets to the Regional Bell Operating Companies (RBOCs), the RBOCs began pushing Congress to allow them back into the lucrative long distance market without any market-opening regulations for local services. Congress wisely declined, and instead settled on the deal of the 1996 Act in which the RBOCs were allowed back into the long-distance market, but only after they opened their subsidized network infrastructure to new market entrants to compete for local exchange services. Congress no longer wanted monopoly market power at the local level, or for it to creep back into the long distance market.

Again, after the adoption of the 1996 Act, the RBOCs resisted FCC enforcement of the market-opening requirements of the new law to such an extent that, due to years of legal wrangling, it wasn't until 2001 that they'd all complied with the law's section 271 mandates, thus forestalling the opportunity for actual competition at the local exchange level for an additional seven years. Over and over, the RBOCs argued that enforcement of competition policies was both unnecessary and harmful, even in markets that were obviously subject to RBOC dominance. While such a lackadaisical approach to competition policy would be lucrative for the incumbent LECs, it would be bad for competition, bad for consumers, and bad for the country.

After the RBOCs were able to freely enter the long distance markets, a flurry of merger activity eliminated some of their best local competitors. What was once NYNEX and Bell Atlantic became Verizon, which bought long distance provider MCI; what was once USWEST became Qwest and was bought by CenturyLink; and Southwestern Bell, PACTEL, Ameritech and Bell South all merged into one large company which bought competitor AT&T. Congress' fears of monopoly market power reemerging are being realized, and once again, the dominant incumbent carriers are resisting competition. The newest argument is that technological change from legacy TDM to newer IP somehow diminishes the consequences of their market control over

interconnection and last mile facilities, and obviates the need for the pro-competitive provisions of the 1996 Act.

Once again, their arguments don't hold water. It is the incumbent carriers' huge base of customers (in the case of Verizon and AT&T, for example, the relevant total includes all TDM, VoIP, and wireless customers) and control over the means to connect to those customers that gives them market power over interconnection, not any new electronics or protocols used to provide those services. And, it is the incumbent carriers' control over nearly ubiquitous last mile connections (physical copper and fiber facilities) used to reach business customers that gives them market power in the wholesale provision of these facilities, not the electronics attached to those physical connections. It would be a mistake and substantial miscalculation of today's market to repeal current law or restrict the FCC from enforcing the interconnection and last mile access rules which are at the core of the 1996 Act's success.

## **Intermodal Competition**

In some instances, communications services offered over different platforms or technologies are sufficiently similar that customers view them as substitutes (i.e. a change in conditions of one service may result in a change of consumption of the other). For example, residential customers appear to view telephone services offered by cable companies via coaxial facilities to be substitutes for, and to provide essentially the same functionalities as, traditional telephone services offered by incumbent carriers via copper loops. It is important that regulatory policies account for intermodal service offerings in an appropriate manner. For example, where an intermodal service offers customers features that are similar to a legacy service, it is important that the FCC define the two services in a consistent manner for purposes of regulatory classification under the Act.

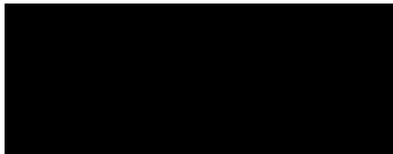
Most of the definitions in the Communications Act are technology-neutral and are therefore sufficiently flexible to be adapted to new and evolving technologies. For example, the Act defines "telecommunications services" as "the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public." It defines "telecommunications," in turn, as "transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent or received." The language of these definitions is not limited to transmission using any specific technology or the transmission of any specific type of information. Thus, even as transmission technologies evolve and the nature of information transmitted changes, the FCC is fully empowered to treat such services that meet these definitions as "telecommunications services."

While the Communications Act is flexible enough to account for intermodal competition, the FCC has not always utilized this flexibility. For example, voice telephony services that are offered using Internet protocol technology ("voice over IP" or "VoIP" services) undoubtedly meet the definitions of "telecommunications" and, when offered to the public for a fee, "telecommunications service." However, despite the fact that VoIP services have existed for more than a decade, the FCC has not yet ruled on whether VoIP services are properly classified as "telecommunications services." Due to this delay, certain aspects of the deployment of VoIP technology, such as the establishment of interconnection among networks for the purposes of

exchanging VoIP traffic, have been stalled. As this example illustrates, the key to addressing intermodal service offerings is not changing the Communications Act but insisting that the FCC exercise its authority under the Act as currently written.

Thank you for this opportunity to comment on the Committee's communications law policy challenges. Integra looks forward to working with the Committee as these debates move forward in Congress, and would like to be helpful in its deliberations as to how the industry might best provide service to business and wholesale customers.

Sincerely,



Douglas Denney  
Vice President, Costs & Policy  
Integra



June 13, 2014

Honorable Fred Upton, Chair  
Honorable Greg Walden  
Committee on Energy and Commerce  
U.S. House of Representatives  
Washington, DC 20515

The Information Technology and Innovation Foundation (ITIF)<sup>1</sup> appreciates the opportunity to comment on competition policy in communications. The state and role of competition animates many of the central debates in communications policy. Net neutrality, municipal broadband, spectrum auction rules, for example turn on competition and the part it plays in achieving the right policy outcome.

As a starting point, one must recognize the difficulty in identifying the optimal level of competition in networked industries undergoing rapid convergence. In both wired and wireless networks, there are significant efficiencies to having fewer networks: some elements of broadband infrastructure tend towards natural monopoly with strong economies of scale. Larger networks with more subscribers are better able to recoup the high fixed costs of building and upgrading a network. For these reasons, we should be comfortable with relatively high levels of concentration in communications compared to other, non-networked industries.

At the same time, competition brings obvious, well-known benefits - increased consumer choice, downward pressure on prices, and a drive to differentiate products. But this competition is not an unalloyed good, and we should be skeptical of interventionist attempts to inject competition without considering the benefits that come with larger providers. Please see the attached paper that examines the two views of competition in more detail.

In short, there is good reason to believe the current regime of light-touch regulatory oversight of intermodal broadband competition, even where limited to a duopoly in the wired context, is a good recipe for increasing speeds, progressive pricing, and continued investment

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<sup>1</sup> The Information Technology and Innovation Foundation (ITIF) is a non-partisan research and educational institute – a think tank – whose mission is to formulate and promote public policies to advance technological innovation and productivity internationally, in Washington, and in the states. Recognizing the vital role of technology in ensuring prosperity, ITIF focuses on innovation, productivity, and digital economy issues.

that will ensure America's networks continue to support world-leading innovation. Furthermore, Google and others have shown that private actors can work on the local level to significantly reduce the cost to deploy broadband infrastructure, further reducing any justification for any radical change from our current path.

Competition policy is further complicated by convergence. When what used to be distinct services can be provided through the IP protocol, the justification for broadband regulation is even harder to maintain. That said, there will continue to be parts of the U.S. that are difficult and expensive to serve, and it is unlikely competition will ever obviate the need for Universal Service.

For these reasons, the Commission's focus should be shifted to expand the focus on adjudication and enforcement. Currently many of the FCC's actions are accomplished through rulemakings, and while there is certainly value in this process, many disputes could be better resolved through adjudication. We should work from the assumption that, while dynamic and unpredictable, these markets may well remain relatively concentrated. General rules-of-the-road with expanded enforcement can allow innovation and investment to flourish while protecting consumers.

Sincerely,

Robert D. Atkinson  
President and Founder  
Douglas Brake  
Telecom Policy Analyst  
Information Technology and Innovation Foundation

# The Role of Competition in a National Broadband Policy

BY ROBERT D. ATKINSON<sup>1</sup> | OCTOBER, 2007

*There are significant tradeoffs between more competition and goals of efficiency, innovation, low prices, and higher speeds and broader deployment.*

There is perhaps no issue more central to the debate about broadband policy than the state of and role of competition. Indeed, the issue of competition drives many of the debates over broadband, including net neutrality, wireless spectrum auctions, municipal broadband, and unbundling proposals. Although some advocates claim that the current state of broadband competition is more than adequate, others decry market conditions and seek proactive public policies to spur more competition. Yet almost everyone involved in broadband policy in the United States agrees that regardless of the current state of competition, more competition is better. The stated reason is that more competition leads to lower prices, higher speeds, broader deployment, more innovation, and better customer service.

Yet, the Washington consensus in favor of more broadband competition ignores the fact that broadband displays natural monopoly or duopoly characteristics. Because of the nature of the broadband industry, there are significant tradeoffs between more competition and goals of efficiency, innovation, low prices, and higher speeds and broader deployment. Thus, it's a mistake for policymakers to assume that if they simply "push the competition lever," all the problems with broadband policy will be solved. Some problems will recede, but others are likely to emerge. The bottom line is that if policymakers want to maximize not

only societal welfare but also consumer welfare, they must balance the push for more competition with the need to maintain and create an efficient broadband industry structure.

This paper starts by reviewing the affordability of broadband in the United States. It then postulates two starkly different views toward broadband competition: the "engineers' view" and the "economists' view." Finally, it reviews the four main policy options toward broadband competition: 1) keep the same number of "pipes"; 2) spur the deployment of more pipes; 3) force incumbents to open up ex-

isting pipes to competitors, and 4) regulate “duopoly” pipes. Although each policy track will achieve some benefits, each also brings with it costs and risks. Policymakers need to balance the desire for more competition to enhance consumer welfare in the broadband realm with the need for the most efficient broadband industry structure.

### IS BROADBAND AFFORDABLE IN THE UNITED STATES?

Before discussing the role of competition in keeping broadband prices low, it’s worth first assessing broadband pricing in the United States. Achieving the goal of nearly universal high-speed broadband adoption in the United States will require, among other things, that most families can afford broadband. Competition is said to be a key aspect of broadband affordability.

In terms of price per megabit per second (mbps), broadband prices have fallen in the United States over the last decade. Thus, for example, Verizon customers can purchase 768 kilobits per second (kbps) DSL service for just \$14.99 a month, less than half the price of what 56 kbps dial-up service was 10 years ago.<sup>2</sup>

The United States performs better in terms of broadband pricing (ranking 7th) in comparison with 29 other Organisation for Economic Co-operation and Development (OECD) nations than it does in terms of broadband adoption (ranking 12th).<sup>3</sup> As shown in Table 1, Japan, Korea, and Sweden offer broadband at the lowest prices, measured as the monthly rate per advertised megabit per second (mbps) of the fastest service generally available, in large part because of extensive very fast fiber optic deployments. Some Japanese residents, for example, subscribe to 100 mbps service for less than \$40 per month.

### COMPETITION ÜBER ALLES?

So what is the role of competition in driving broadband price performance? In the last decade, the Washington telecom consensus has focused first and foremost on competition as the driver of all things good in the telecom space. Almost everyone involved in broadband policy agrees that regardless of the current state of competition, more competition is better.

**TABLE 1: RANKING OF OECD COUNTRIES BY PRICE OF THE FASTEST GENERALLY AVAILABLE BROADBAND SERVICES<sup>4</sup>**

Nation	\$/Month for 1 megabit (purchasing power parity)
Japan	0.27
Korea	0.45
Sweden	0.63
France	1.64
Australia	2.39
Finland	2.77
United States	3.33
Italy	3.36
Norway	4.04
Netherlands	4.31
Denmark	4.92
Iceland	4.99
Germany	5.20
Austria	5.99
Canada	6.50
Belgium	6.69
New Zealand	9.20
Portugal	10.99
United Kingdom	11.02
Spain	12.46
Poland	13.00
Ireland	13.82
Luxembourg	18.48
Switzerland	21.71
Czech Republic	24.10
Greece	33.19
Hungary	44.24
Slovak Republic	50.15
Mexico	60.01
Turkey	115.76

To be sure, competition has much to commend it. It provides consumers with choice. It spurs companies to improve service quality, including customer service. It helps keep prices down. The experience of other industries—including banking, airlines, and trucking—where regulation was reduced or eliminated and competition enabled makes it clear that the benefits of competition can indeed be profound.

When applied to the goal of achieving a universal and affordable broadband network, the focus of the Washington telecom consensus is clear: Spur more competition by encouraging alternative “pipes” (e.g., opening up more spectrum for broadband data transmission; establishing rules to enable broadband over power lines; fostering municipally owned networks); and/or requiring incumbent providers (e.g., telecom and cable companies) to open up their networks for competitors to ride on.

But is telecommunications—and, in particular, broadband—like banking, airlines, and trucking? Or is it more like municipal water, electricity, and gas service, where there is no competition in the “last mile?” In other words, is broadband more like a natural monopoly or a service provided in highly competitive markets? This question has in fact been at the center of debates over telecommunications for many years—and should also be at the center of the broadband debate.

**DIFFERING PERSPECTIVES ON BROADBAND SERVICE: ENGINEERS VS. ECONOMISTS**

Whether one thinks broadband is more like a natural monopoly or a service provided in highly competitive

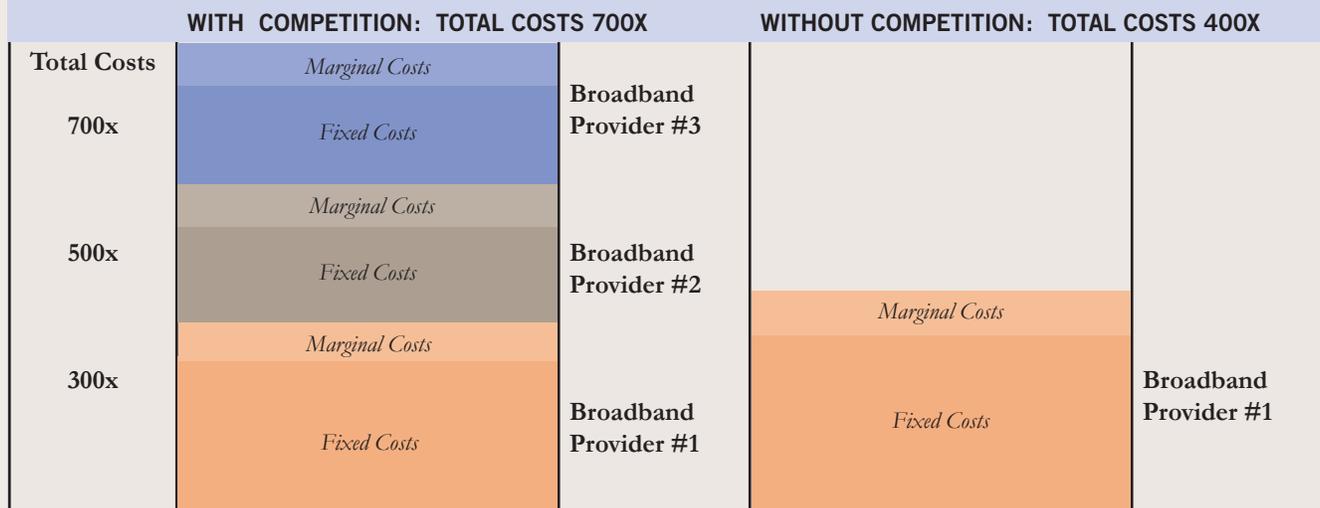
markets depends in part on whether one brings an engineer’s or an economist’s perspective to the question.

**The Engineers’ Perspective**

Here’s what many engineers will say: It is expensive to build a standard broadband network to homes, and even more expensive to build a high performance one with large data capacity (e.g., fiber optic). Given these economics and since Internet protocol networks are just transmitting bits from applications that reside outside the network, why not just build one network? Most homes have just one electricity wire, one water pipe, one gas pipe, and one sewage line, because building a duplicative “pipe” for any of these services would cost an enormous amount of money.<sup>5</sup> Like these services, broadband networks are a natural monopoly; hence, encouraging the deployment of more than one will lead to a waste of societal resources.<sup>6</sup>

Figure 1 illustrates the engineers’ view of the broadband world. Fixed network costs involve fixed costs that must be paid to serve a neighborhood regardless of the number of subscribers. Marginal costs vary depending on the number of customers. Advertising is usually a fixed cost; customer service is a marginal

**FIGURE 1: THE ENGINEERS’ VIEW OF BROADBAND INFRASTRUCTURE**



one. Most central office expenses and wiring to the neighborhood constitute a fixed cost, whereas wiring a customer’s home from the street constitute a marginal cost. Most of the total broadband network costs are fixed, so building multiple networks to serve the same neighborhood increases overall costs—and hence prices. In the engineers’ ideal world, therefore, it would be best to have just one very high-speed “pipe” to the home.

Engineers have one other belief: More computer processing capacity, more storage, and more data transmission capacity is always a good investment. You can never get enough. Engineers cite the history of computing and telecom, which always quickly took advantage of increased processing, storage, and speed. As a result, engineers argue: Why not future-proof networks by building very fast pipes (often fiber)? Indeed, the Institute of Electrical and Electronics Engineers states “only too much [bandwidth] is enough.”<sup>7</sup>

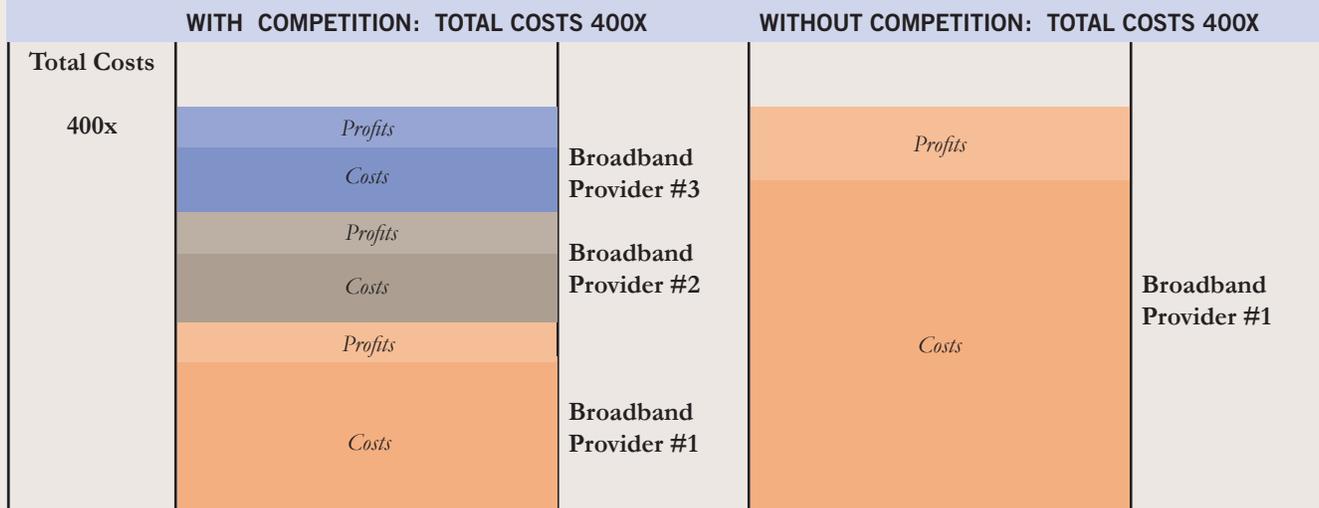
**The Economists’ Perspective**

If engineers favor about one pipe and abundance, economists favor multiple pipes and scarcity. Most economists argue that competition brings important

consumer benefits by forcing companies to cut costs, improve service, and reduce “excessive” profits. Without competition, companies get lazy, limit their innovation, provide poor service, and reap monopoly profits. As shown in Figure 2, economists see competition as reducing not just marginal costs but fixed costs as well. Robust broadband competition reduces excessive profits and forces companies to cut marginal and fixed costs through innovation and the drive to gain greater efficiencies. According to their logic, more competitors are better because they will make the competitive environment more intense, driving more efficiency, experimentation, and innovation.<sup>8</sup>

Yet even the most ardent advocate of competition will probably admit that competition can be excessive if it leads to a market structure in which average establishment and firm size are below optimal levels. If the most efficient automobile factory has to produce at least 100,000 cars a year (below this level, the plant gains fewer economies of scale), for example, then a fragmented and competitive market composed of firms producing 50,000 cars each would be inefficient and lead to higher costs and higher prices.<sup>9</sup> Excessive competition can also reduce profits to a level that makes it difficult for firms in an industry to make adequate in-

**FIGURE 2: THE ECONOMISTS’ VIEW OF BROADBAND INFRASTRUCTURE**



vestments in efficiency and new products or services.

Whereas engineers can't get enough speed and see a fiber-enriched world as the ideal, economists are skeptical of getting too far out in front of the market. They often argue that consumers may not actually need all the speed that a fiber network provides (either because technologies like compression will obviate the need or that consumers won't be interested in the applications needing high speeds). Moreover, many economists are loathe to have government pick the best technology (e.g., fiber) and worry that doing so will preclude the developments of other potentially superior (in performance and/or price) technologies.<sup>10</sup>

### Who's Right?

So who's right: the engineers or the economists? In fact, both are. Both engineers and economists bring important perspectives to the issue, and ignoring either set will lead us to the wrong policy conclusions.

Engineers are right in noting that there are elements of broadband infrastructure that have natural monopoly aspects, as do water, gas, and sewer pipes, and electric lines to the home. What is striking is that even during the height of the electricity deregulation movement in the 1990s, almost no advocates, even the most free-market oriented, proposed deregulating the local electricity distribution network. Most saw this network rightly as a natural monopoly where the most efficient structure was one set of wires to each home.

To be sure, competition might bring benefits in electricity production and even long haul distribution, but this was because these segments do not exhibit natural monopoly characteristics. If public policies somehow spurred the construction of a second set of electric wires to every home in America, society as a whole—largely through ratepayers, or if funded by government incentives then by taxpayers—would bear the added costs. There is no “free lunch.”

The same holds true for broadband networks. If in the face of more competitors, broadband providers are forced to amortize the fixed costs of their networks over significantly fewer customers, total broadband costs will rise—and prices will almost certainly have to rise as well, even if profits are squeezed and efficien-

cies maximized. The only way this situation could be averted would be if a new entrant was not successful in gaining any broadband customers. In this case, overall broadband costs would still increase but the costs would be borne by the new entrant's bondholders and stockholders. If all new entrants gained customers, however, then the incumbents by definition would have fewer customers and hence less revenue to amortize the costs of their networks.

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*The issue, then, becomes one of how to attain the right balance between the cost-efficiency of fewer networks and the competitive benefits of more networks.*

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Yet economists are right in pointing to the potentially significant problems with monopolies or duopolies and reminding us that competition can spur innovation, as well as increased efficiency and consumer welfare. After all, we just have to remember the bad old days of the “Ma Bell” monopoly, where customer service and choice was often problematic and innovation limited. In the broadband world, too little competition can lead to slower rollout of more advanced networks.

The issue, then, becomes one of how to attain the right balance between the cost-efficiency of fewer networks and the competitive benefits of more networks. Before considering this issue, it's important to realize that the current state of competition in the United States is due largely to historical telephony and cable television (CATV) monopolies that enabled providers to build their networks to a large share of households: CATV passes upwards of 90 percent of homes, and DSL broadband is available to approximately 79 percent of households where incumbent local-exchange carriers (ILECs) offer local telephone service.<sup>11</sup> The evolution of technology just happened to allow both networks to relatively easily transmit IP-switched data on their networks. The situation in the United States is in marked contrast to that in many other parts of the world, including Japan and much of Europe, where the cable plant is less built out and where intermodal competition is more limited.

Even if in an ideal world, a one-pipe solution in the

United States could ultimately result in lower total network costs (e.g., especially if that one provider—cable or telephone company—laid fiber to most households) than what we have today, it's not clear how that solution would come about. Clearly, the Federal Communications Commission (FCC) or state public utility commissions would not and should not be in a position to anoint one winner while shutting other technologies/companies out of the market.

So is existing broadband competition in the United States adequate? In most local markets, there are only two principal competitors: telephone and cable broadband. Indeed, for the foreseeable future, the “last mile” of broadband services is for most consumers at best a duopoly, and sometimes a monopoly. To be sure, the FCC reports that 87.5 percent of zip codes have three or more broadband providers.<sup>12</sup> But the FCC's inclusion of satellite broadband services in this measure misrepresents the actual competitiveness of the market. Satellite is generally not a full substitute for DSL or cable modem service, because it has higher prices, slower speeds, and high latency. Consequently, the reality is that most Americans with a choice of cable modem, DSL, and satellite really have a choice between “two and a half” providers of broadband service.<sup>13</sup>

In assessing the state of broadband competition today, it's important to realize that not every home has to be served by every provider in an area for that household to realize the benefits of competition. Thus, for example, there are homes located in the Washington, D.C., metropolitan area that cannot get DSL service but can get cable modem service; yet, because the incumbent cable companies have to price their offerings based on competition in the entire metropolitan area, households without access to DSL still benefit from competition.

This consideration is important when considering proposals to require cable or telephone companies to build-out in their service areas. These proposals are often justified on the basis of providing competition and lower prices to those households that would not get service (or get it as soon) without a mandate. But if there is competition in the overall local market—indeed this seems to be the case as pricing plans are often statewide or multistate—then individual house-

holds with access to fewer providers will still benefit from competition. It is important to note, however, that this statement is less true if incumbents are able to offer discounts to those households with choice; if this is the case, households with fewer or no choices will gain fewer benefits of competition.

## POLICY OPTIONS

Given these factors and conditions, what is the appropriate role for U.S. telecommunications policy towards broadband competition? There are essentially four different policy approaches.

### 1) Keep the Same Number of Pipes

Given that most U.S. households are served by “two and a half” broadband providers, is this the right number? In the short term, it appears to be. The fact that cable and telco broadband providers are competing quite intensely to gain new customers and hold onto existing ones appears to compensate for the fact that the market is largely a duopoly. And indeed, with around half of all households currently subscribing to broadband, it is likely that cable and telephone companies will continue their vigorous competition to sign up new customers. To get new customers, these companies are rolling out new technologies and introducing low-price offers, including bundled package offers.<sup>14</sup>

But what happens in the future when most households have adopted broadband? And what if some customers are reluctant in the face of difficulties associated with switching broadband providers to switch providers?<sup>15</sup> In this case, it's possible that broadband providers may be able to exercise more market power.

### 2) Spur Deployment of More Pipes

In the face of a market with “two and a half” pipes, many policymakers see promoting more pipes into the home as the silver bullet. In some cases, proposed policies would simply remove barriers to competition. In other cases, policies would proactively support additional networks.

One of the leading rationales used by supporters of municipal broadband networks (either wireless or wired) is that a publicly subsidized (whether publicly or privately owned) additional network will boost com-

petition, driving down prices and making it easier for residents to afford broadband.<sup>16</sup> It's not clear, though, that this will be the case. Leaving aside the question of whether publicly owned broadband can operate as efficiently, it's clear, as described above, that an additional network will mean fewer subscribers for incumbent providers.<sup>17</sup> And even if some of the lost revenue leads directly to lower profits, it's unlikely that all of it will, with the result that the provider will either have to raise prices or invest less capital to upgrade to next generation networks.

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*The right policy regarding more broadband pipes is: "Enable, but don't promote."*

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This impact of more competition on investment is particularly important. Noted economist Joseph Schumpeter talked about the advantage of innovation in creating temporary higher profits, which in turn let companies invest the sizeable amounts of capital needed in more technological innovation.<sup>18</sup> If competition becomes as fierce in broadband as it is in the long-distance voice business, the effect will surely be to reduce the amount of capital needed to deploy next generation high-speed networks.<sup>19</sup>

Although public policy should not proactively subsidize the deployment of additional networks, conversely it should not erect or maintain barriers to the emergence in the market of additional networks. With respect to spectrum, this means freeing up inefficiently used or underutilized spectrum, including spectrum in so-called "white spaces," while letting the marketplace (with the exception of first responder uses) decide on its highest and best use.<sup>20</sup>

In the FCC's forthcoming auction of 700 MHz spectrum, for example, it's likely that much of that spectrum will be used for IP data transmission. Given that there are areas that cannot get either DSL or cable modem service, developing a "first" pipe there is important. In this situation, it appears that fixed wireless may be the most cost-effective technology, so it's important to have public policies, particularly with respect to spectrum, to help enable this. But it would be

just as wrong to limit such spectrum from being used for broadband services as it would be to mandate its use for broadband. With respect to broadband over power lines, the policy should be to remove unnecessary regulatory obstacles to deployment. But policy should not tilt the playing field to promote a particular technology.

This principle should also be applied to the universal service fund (USF). Currently, in the name of promoting competition, almost \$1 billion in USF funds are invested yearly on competitive, duplicative voice providers, including cellular, in high-cost areas.<sup>21</sup> Instead of using these limited funds to subsidize the building of a parallel network, it would be better to use the funds to subsidize the buildout of incumbent broadband networks to more places with higher speeds. If broadband becomes explicitly eligible for USF payments, then policymakers will have to address the issue of how many providers to fund in an area. If policymakers decide that mobility is a distinctly valuable service that deserves public subsidies in high-cost areas, then subsidies to both wireless and wireline phone service in the same area could make sense. But investing limited USF funds in the goal of competition means that funds to expand broadband to the places that need it will be more limited.

In sum, the right policy regarding more broadband pipes is: "Enable, but don't promote." For example, if policymakers provide tax incentives for broadband (either to spur deployment to high-cost areas or deployment of next generation high-speed networks), the incentives should be available to all providers—and not, as some have argued, available only to the providers of additional new pipes.

### 3) Regulate Open Pipes

Many people who advocate more broadband competition but are pessimistic about more pipes being built (either through market forces alone or with public promotion) see unbundling of incumbent pipes as the answer.<sup>22</sup>

Indeed, the European Union has pushed this approach as the core of its broadband strategy, requiring member nations to craft regulations unbundling the incum-

bent copper telephone loops. It appears that the European Union will soon mandate that all nations adopt “virtual separation” arrangements, as described below. This strategy has met with some success. For example, OECD reports that the company with the best “triple play” in the world—France’s Free Telecom—rides on the DSL pipes of the incumbent France Telecom.<sup>23</sup> Likewise, Japan’s fast and cheap DSL broadband service Yahoo! rides on the wires, and increasingly fiber, of the incumbent NTT.

There are various models of open pipes. In most nations, competitors get access to the incumbent’s copper loop at regulated prices and terms. In these and other cases, competitors lease some parts of the incumbent’s network, usually the pipe itself, and install their own switches and other equipment. But at least one nation, the United Kingdom, has moved to a virtual separation model, in which the incumbent British Telecom was required to create “separate” retail and wholesale division. The wholesale division manages the “pipes,” and the retail division that sells broadband and other services competes with many other broadband service providers.

Many advocates of the unbundling model, particularly in the United States in the 1990s, saw mandatory unbundling as a transitional state until competitive providers built their own networks. But the anticipated building of networks did not occur, and it appears that even if the regulatory framework of the 1990s had been extended, the building would not have occurred. The reason goes to the engineer’s insight: It makes little economic sense for homes to have multiple DSL lines.<sup>24</sup> The costs of such a model would be prohibitive. Thus, unbundling or open pipes is not a transitional model to get to facilities-based competition.

Unbundling has both benefits and costs. First, on the plus side, unbundling is a relatively quick way to get competition. This is one reason why many nations, particularly those where intermodal competition was limited, have chosen an open pipes model. Some continental European nations have much less intermodal competition than the United States and Canada, as illustrated by the fact that the United States and Canada score much lower on a two-firm Herfindahl-Hirschman Index (HHI) of cable and DSL (0.50) than France (0.90)

and Germany (0.94).<sup>25</sup> Second, intramodal competition can lead to lower prices, particularly compared to higher costs of promoting facilities-based competition. This is especially true if incumbents must resell lines at or below cost. Third, it can enable other benefits of competition, including greater consumer choice.

On the negative side, though, unbundling reduces incentives of incumbents to invest in larger pipes. If the incumbent has to resell the pipe, particularly at very low prices, where is the incentive to invest a large amount of capital in a better pipe (e.g., fiber)? Indeed, there is a risk that Europe could be in a “DSL-cul-de-sac” with robust competition on copper lines, but little investment in next generation lines. (Because of shorter copper loops in many European nations, this is a strategy that can at least for the foreseeable future generate more than adequate speeds. For example, Free Telecom offers speeds of around 20 mbps.) In addition, the unbundling model (at the least the continental European model) requires regulators to be much more interventionist, including setting prices. But if they price access to the network too low, they limit investment. If they set the price too high, they limit competition.

In some ways, Japan has appeared to square the circle of getting the benefits of competition with the incentives to deploy big fast pipes. More than 70 percent of the Japanese households served by NTT East now can subscribe to 100 mbps (advertised speed) fiber optic service. Yet NTT must resell these lines to competitors.<sup>26</sup> Why then did NTT deploy, given this regime? In part, NTT responded to generous financial incentives from the government to deploy fiber and direction from the government to do so. The fact that NTT is approximately 40 percent government owned makes them more likely to respond to such government direction and to be able to pay less attention than U.S. firms do to the capital markets.

Another nation that has been able to combine the engineers’ view with the economists’ is Sweden. There some municipalities control the right to lay the underground cable. In Stockholm, a publicly chartered corporation is the only entity with the right to lay wires and has deployed a fiber network to most buildings in the city. This corporation leases dark fiber to what-

ever company—ILEC or competitive local-exchange carrier (CLEC)—wants it. Thus, for example, one large CLEC, B2, uses this fiber, installing routers and modems on either end, to provide up to 100 mbps broadband to Stockholm residents and businesses. The advantage of the Stockholm model is that it limits infrastructure costs—private sector fiber and cable deployment was previously largely nonexistent—while at the same time spurring competition. It should be noted that this model is different than many of the muni fiber projects in the United States (such as Lafayette, La.), which are over-builder projects, spending money to build a third pipe and provide their own applications. In contrast, the Stockholm model involves just one pipe over an open network.

#### 4) Regulate Duopoly Pipes

The final policy option would be simply to assume that there will be limited broadband competition in the United States—a duopoly at best—and that some form of regulation is needed. Regulation has the advantage of limiting any current or potential abuse of market power. As noted above, however, regulation can also reduce incentives for investment. Moreover,

at least for the foreseeable future, there appears to be considerable competition between cable and DSL providers. In addition, there can be the significant institutional challenge of managing rate regulation or allowing new entry once a monopoly is embraced. A “softer” alternative to regulation, but one that would still be premised on a mature duopoly market, would be to use existing antitrust and consumer protection rules more aggressively to limit abuses.

#### CONCLUSION

As Congress, the FCC, and states consider broadband policies over the next few years, the issue of competition is sure to play a central role in their deliberations. This paper argues that competition is not an end in itself but rather a means by which the economic system produces the benefits citizens desire. Moreover, increased broadband competition is by no means a panacea for solving perceived or real limitations in the nation’s broadband infrastructure. As a result, policymakers need to balance the desire for more competition to enhance consumer welfare in the broadband realm with the need for the most efficient broadband industry structure.

## ENDNOTES

1. The author wishes to thank the following individuals for comments on earlier drafts: Dan Correa, Julie Hedlund, Jon Peha, and Phil Weiser. A version of this paper was originally prepared as a discussion paper for the Aspen Institute 2007 Telecommunications Roundtable.
2. In constant dollars.
3. We measure take up on a per-household basis, which leads the United States to rank 12th, instead of 15th on a per-capita basis. See Daniel K. Correa, “Assessing Broadband in America: OECD and ITIF Broadband Rankings,” (The Information Technology and Innovation Foundation, Washington, D.C., April 2007) <[www.itif.org/files/BroadbandRankings.pdf](http://www.itif.org/files/BroadbandRankings.pdf)>.
4. Correa, op. cit., 4.
5. A related issue is whether incumbent telephone companies must keep their legacy copper network after a customer switches to fiber. An engineer’s view of the issue is that they should not, because the maintenance costs can be significant and are passed along to all customers. (See Deborah Yao, “Verizon Copper Cutoff Worries Some Users, Small Rivals,” *USA Today* (2007) <[www.usatoday.com/tech/products/services/2007-07-08-verizon\\_N.htm](http://www.usatoday.com/tech/products/services/2007-07-08-verizon_N.htm)>.)
6. IEEE, USA, “Report from the Workshop: This Decade’s Revolutionary Telecommunications Paradigm” (2003) <[forum.johnson.cornell.edu/afn/publish/WSR/WSR.pdf](http://forum.johnson.cornell.edu/afn/publish/WSR/WSR.pdf)>.
7. Ibid.
8. See Howard A. Shelanski, “Competition and Regulation in Broadband Communications,” *Broadband: Should We Regulate High Speed Access?* Robert W. Crandall and James H. Alleman, eds. (Washington, DC: AEI-Brookings Joint Center, 2002).
9. Most economists would argue that the market would prevent this from happening by enabling more efficient firms to gain market share, putting out of business inefficient producers, but the real world does not always approximate the textbook world.
10. Odlyzko notes, “technological predictions have always been hard, of course, and much of what broadband proponents say has to be treated cautiously.” See Andrew Odlyzko, “The Many Paradoxes of Broadband,” *First Monday* 8(9) (September 1, 2003) <[firstmonday.org/issues/issue8\\_9/odlyzko/index.html](http://firstmonday.org/issues/issue8_9/odlyzko/index.html)>.
11. Federal Communications Commission, Wireline Competition Bureau, *High Speed Services for Internet Access* (Washington, DC: FCC, January 2007) <[fjallfoss.fcc.gov/edocs\\_public/attachmatch/DOC-270128A1.pdf](http://fjallfoss.fcc.gov/edocs_public/attachmatch/DOC-270128A1.pdf)>.
12. Federal Communications Commission, Table 16.
13. A 2006 Government Accountability Office (GAO) analysis of broadband in eight states confirmed that the number of broadband providers available to consumers is far below what the FCC’s broadband statistics suggest. GAO found that the median number of providers available to households surveyed was only two, even though the FCC reported a median of eight providers for the relevant zip codes. See U.S. Government Accountability Office, *Broadband Deployment Is Extensive Throughout the United States, but It Is Difficult to Assess the Extent of Deployment Gaps in Rural Areas* (Washington, DC: GAO, May 2006) 17-18.
14. For example, Verizon is rolling out its FiOS fiber optic network. Comcast recently announced plans to deploy in the future high-speed DOCSIS 3.0 channel bonding technology.
15. Some broadband subscribers, for example, use their providers’ e-mail services for their e-mail address (e.g., johnsmith@verizon.com). This makes switching broadband providers more difficult for these subscribers than for broadband subscribers who use platform-independent e-mail services (e.g. johnsmith@hotmail.com).
16. For more information on municipal provisions, see Craig Dingwall, “Municipal Broadband: Challenges and Perspectives,”

*Federal Communications Law Journal* 59(3) (2007), 67-103.

17. Ford models how reduced market size reduces the number of profitable providers. George Ford, “Competition After Unbundling,” *Federal Communications Law Journal*, 59(2 (Mar. 2007), 332-367.

18. See Joseph Schumpeter, *Capitalism, Socialism, and Democracy* (New York: Harper & Row, 1942).

19. Verizon’s FIOS strategy requires considerable capital. Comcast’s recently announced DOCSIS 3.0 investment is estimated to cost less, but will still be in the billions of dollars. Whether such high-speed networks will be rolled out in most places, though, remains to be seen.

20. For more information on “white spaces,” see <[www.itif.org/index.php?id=81](http://www.itif.org/index.php?id=81)>.

21. Universal Service Administrative Company, *2006 Annual Report: Reaching Out* (Washington, DC: USAC, 2007) <[www.usac.org/\\_res/documents/about/pdf/usac-annual-report-2006.pdf](http://www.usac.org/_res/documents/about/pdf/usac-annual-report-2006.pdf)>.

22. For example, see and Donna N. Lampert, “No Sight Like Hindsight: The 1996 Act and the View Ten Years Later,” *Federal Communications Law Journal* 58(3) (2006), 519-523.

23. OECD Directorate for Science, Technology, and Industry, Committee for Information, Computer, and Communications Policy, Working Party on Telecommunication and Information Services Policies, *Multiple Play: Pricing and Policy Trends* (Paris: OECD, April 2006) <[www.oecd.org/dataoecd/47/32/36546318.pdf](http://www.oecd.org/dataoecd/47/32/36546318.pdf)>.

24. Providing broadband service to businesses in crowded downtowns is another matter. There densities and demand are high enough to support multiple providers.

25. The Herfindahl-Hirschman Index (HHI) is a measure of firm concentration in an industry, calculated as the sum of the squares of each firm’s market share. HHI scores range from 0 to 1, with higher scores indicating an industry dominated by a small number of firms. The HHI for an industry monopolized by a single firm is 1. To gain a better understanding of the importance of platform competition for broadband in OECD countries, we calculated the HHI for each country’s mix of broadband technologies. For this measure, we used the OECD’s latest data, “Broadband Statistics to December 2006,” found at <[www.oecd.org/sti/ict/broadband](http://www.oecd.org/sti/ict/broadband)>. The OECD data include four broadband technologies (DSL, cable, fiber, and other), only two of which—DSL and cable—have significant market share in most countries. For this reason we have calculated the HHI for DSL and cable alone, and scores fall between 0.5 and 1 (0.5 represents a case in which both platforms have equal market share).

26. According to Mr. Takeshi Eberhara, Senior Director, Corporate Strategy Department, NTT, who participated in an April 2007 ITIF Policy Forum, “Understanding the Japanese Broadband Miracle,” they must resell their fiber lines to CLECs <[www.itif.org/index.php?id=38](http://www.itif.org/index.php?id=38)>.

## ABOUT THE AUTHOR

Dr. Robert D. Atkinson is President of the Information Technology and Innovation Foundation, a Washington, DC-based technology policy think tank. He is also author of the *The Past and Future of America's Economy: Long Waves of Innovation that Power Cycles of Growth* (Edward Elgar, 2005).

## ABOUT THE INFORMATION TECHNOLOGY AND INNOVATION FOUNDATION

The Information Technology and Innovation Foundation (ITIF) is a nonprofit, non-partisan public policy think tank committed to articulating and advancing a pro-productivity, pro-innovation and pro-technology public policy agenda internationally, in Washington and in the states. Through its research, policy proposals, and commentary, ITIF is working to advance and support public policies that boost innovation, e-transformation and productivity.

For more information contact ITIF at 202-449-1351 or at [mail@itif.org](mailto:mail@itif.org), or go online to [www.innovationpolicy.org](http://www.innovationpolicy.org).

**ITIF | 1250 I St. N.W. | Suite 200 | Washington, DC 20005**



## Introduction

ITTA, the Voice of Mid-Size Telecommunications Carriers, is a Washington, D.C. industry association dedicated to representing mid-size, incumbent local exchange carriers that provide a variety of communications services to subscribers in predominantly rural areas across 44 states.

ITTA is pleased to respond to the Subcommittee on Communications and Technology's White Paper on Competition and welcomes the Subcommittee's interest in updating the outdated Communications Act.

In 1993 when ITTA was formed, our members offered POTS (plain old telephone service). Today, ITTA members are aggressively deploying networks capable of high-speed broadband to millions of consumers, many of which live in rural areas where the cost of deploying and operating networks remains much higher than in more densely populated areas. In addition to the high cost of operating networks in rural America, reforms to the Universal Service Fund and the possibility of new net neutrality regulations, create additional challenges and uncertainty for ITTA members.

In addition to offering voice and broadband services, ITTA members offer video services. Collectively, ITTA members pass in excess of 3.9 million homes with video services and compete head-to-head against larger cable and satellite companies like Comcast, Time Warner, DirectTV and Dish Network, as well as online video providers like Netflix, Amazon, Hulu, Apple TV, and others.

Despite increasing retail competition in every segment of the industry, ITTA members continue to be regulated as if it was 1993 when retail competition was in its infancy. ITTA is encouraged that Congress will tackle many of the difficult issues relating to competition policy in order to ensure that every segment of the communications industry is competing on a level playing field.

Thank you again for the opportunity to comment and please feel free to reach out to Paul Raak, Vice President of Legislative Affairs, by email at [REDACTED] or by phone at [REDACTED]



**ITTA RESPONSE TO COMPETITION POLICY WHITEPAPER**

**1) How should Congress define competition in the modern communications marketplace? How can we ensure that this definition is flexible enough to accommodate this rapidly changing industry?**

First, Congress should identify the public policy goal to be achieved by defining competition in the Communications Act. If the public policy goal is to ensure that every consumer has access to modern communications capabilities, Congress should provide the FCC the flexibility to evaluate when regulation is needed and to act *when a marketplace failure has been demonstrated to exist*.

In addition, Congress should recognize the differing challenges inherent in serving rural vs. more urban markets. For example, in rural areas mobile wireless service may not be a substitute for wired communications. Mobile wireless provides the consumer mobility but cannot always provide the reliability and consistent download speeds that a wired communications service provider can offer, especially in rural areas. The question of whether a market is functioning properly should not be answered purely based on the number of existing service providers but rather should take into account the level and quality of service being provided by all providers in the geographic market at issue.

**2) What principles should form the basis of competition policy in the oversight of the modern communications ecosystem?**

ITTA believes that the following principles should be the cornerstone of any effort to modernize the Communications Act:

- Maintain core public safety obligations for all communications service providers.
- No unfunded mandates.
- Regulate only when and where market failures have been found to exist.

**3) How should intermodal competition factor into an analysis of competition in the communications market?**

ITTA members compete against a multitude of providers, including networks that are owned by local municipalities and recipients of BTOP broadband stimulus and other grants. When considering the nature and extent of intermodal competition, whether a network has been funded directly by the government should be taken into account. Government-funded network operators should have the obligation to grant all competitors non-discriminatory access to their networks.

**4) Some have suggested that the FCC be transitioned to an enforcement agency, along the lines of the operation of the FTC, rather than use broad rulemaking authority to set rules *a priori*. What role should the FCC play in competition policy?**

Congress should take action to make the FCC more responsive to industry complaints and evidence of market failures. H.R. 3675, the FCC Process Reform Act of 2014 which passed the House of Representatives in March 2014, includes many reforms that ITTA supports. They include:

- i. The establishment of procedures for allowing a bipartisan majority of commissioners to place items on an open meeting agenda and for publishing in advance of such meetings the text of agenda items on which the FCC will vote;
- ii. The publication of orders, decisions, reports, and actions within 30 days after adoption.
- iii. The ability of a bipartisan majority of commissioners to hold nonpublic meetings, including meetings to collaborate with joint boards or conferences.
- iv. The extension of the Universal Service Antideficiency Temporary Suspension Act through December 31, 2020.

In addition, ITTA believes that FCC enforcement mechanisms should be more reflective of companies' size and resources. Today, many of the enforcement mechanisms intended to provide relief to small and mid-size companies are too expensive and time-consuming to pursue. Forcing small to mid-size companies to spend hundreds of thousands of dollars in legal fees to pursue enforcement action at the FCC undermines the core mission of the FCC and disenfranchises those consumers served by small to mid-size companies.

**6) What, if any, are the implications of ongoing intermodal competition on the role of the FCC in spectrum policy?**

ITTA members' core business model remains providing high-capacity wired communications services to consumers. However, ITTA members compete against wireless providers and our members are forced to pay broadcasters for the rebroadcast of content delivered over the public's spectrum. ITTA believes there are two areas where Congress can direct the FCC to do a better job of protecting competition in spectrum policy:

1. The FCC must ensure that spectrum held by broadcasters is meeting the social obligations for use of this taxpayer-owned resource. This includes ensuring that broadcasters fulfill their obligation to provide "free, over-the-air" signals to the entire DMA in which they serve. In cases where a broadcaster is unable or unwilling to deliver the signal to its entire DMA, the FCC should take appropriate action, including making the broadcaster relinquish unused spectrum to be made available in a spectrum auction.
2. Any build-out rules conditioned on the use of spectrum should meet the same requirements as regulations placed on wired service providers.

**7) What, if any, are the implications of ongoing intermodal competition at the service level on the FCC's role in mergers analysis and approval?**

Providers seeking approval from the FCC for a merger or acquisition should have their type of service judged against all providers of similar services in the same geographic market.

**8) Competition at the network level has been a focus of the FCC regulation in the past. As networks are increasingly substitutes for one another, competition between services has become even more important. Following the Verizon decision, the reach of the Commission to regulate "edge providers" on the Internet is the subject of some disagreement. How should we define competition among edge providers? What role, if any, should the Commission have to regulate edge providers – providers of services that are network agnostic?**

ITTA members recognize the benefits that edge providers bring to consumers. As ITTA members expand their reach and connect more customers, the value of the entire network increases significantly for all edge providers. However, as more data is delivered to more consumers from an increasing number of edge providers, the following two questions should be considered:

1. Should edge providers be assessed regulatory fees to ensure that the burden of funding the FCC is a shared responsibility among network providers like ITTA members and edge providers like Netflix?
2. Should edge providers contribute in support of the broadband networks on which they depend?

**9) What regulatory construct would best address the changing face of competition in the modern communications ecosystem and remain flexible to address future change?**

Please refer to response to question #1.

**10) Given the rapid change in the competitive market for communications networks and services, should the Communications Act require periodic reauthorization by Congress to provide opportunity to reevaluate the effectiveness of and necessity for its provisions?**

Five years ago, ITTA members were not involved in the debate to reauthorize STELA. Today, ITTA members are aggressively competing with cable and satellite companies in the paid television market. In many of the geographic areas where ITTA members are offering video services, they are the fourth and fifth entrants into the video market.

Despite aggressive competition in the video distribution market, however, consumer prices continue to increase at significant rates. These increases are directly attributable to the outdated provisions of the 1992 Cable Act which provide broadcasters a guaranteed, federally-protected transfer of wealth from consumers via the retransmission consent fees that are passed through on their cable bills.

If not for STELA expiring at the end of this year, the chances of consumers receiving any relief would be next to none. The reauthorization of STELA has generated vigorous debate and, hopefully, will lead to pro-consumer changes in the video competition marketplace.

However, ITTA cautions that any debate regarding whether some provisions of the Act should be subject to sunset will likely create business and regulatory uncertainty and could stifle investment. Therefore, ITTA encourages Congress to consult with the FCC and permit the FCC to make suggestions on what parts of the Act should sunset or not be reauthorized.

Congress should also be prepared to debate what role, if any, the states should play in regard to continuing the regulation of “intrastate” telecommunications services in a global economy.

**Comments of 21<sup>st</sup> Century Fox, CBS Corporation, and The Walt Disney Company  
in Response to the House Energy & Commerce Committee’s White Paper on  
Competition Policy and the Role of the FCC**

Thank you for the opportunity to comment on your most recent white paper: Competition Policy and the Role of the Federal Communications Commission (“FCC”). We would like to provide the Committee with our views regarding whether it would be appropriate for the FCC to regulate “edge providers”.<sup>1</sup> As companies principally involved in the creation of high-quality video content, we believe the market for the provision of content to consumers online is intensely competitive, and there is no market failure, or other sustainable basis, that would warrant Commission regulation of on-line content.

Today, apart from content transmitted over broadcast television, the Commission has virtually no authority to regulate content provided online, or for that matter, through any other means of delivery. Indeed, the creation or attempted exercise of such authority would raise significant Constitutional concerns and would almost certainly result in less free, high-quality content available to consumers online.

The Congress and the Commission have long wisely limited the exercise of regulatory authority. In fact, in its most recent major communications legislation – the Telecommunications Act of 1996 – Congress made clear its intent to establish a “de-regulatory national policy framework.”

The provision of content on the Internet is intensely competitive. According to a survey conducted by Internet services company, Netcraft, there were more than 600 million websites on the Internet as of March 2012. According to the Motion Picture Association of America, there are now “over 400 unique online services around the world delivering full length feature films and TV shows, 100 of which are available in the United States.”

In laying out its “virtuous cycle” theory for regulatory authority over broadband providers, the Commission has concluded that high-quality video content online has spurred consumer demand for broadband, which has in turn, spurred broadband deployment.<sup>2</sup> In these circumstances, regulation of content creators is not only wholly unnecessary to correct any market failure, it would likely have the perverse result of upsetting what is today a robustly competitive and well functioning market place. This wholly undesirable result could then cascade to lessened consumer demand for broadband and thus defeat, rather than promote the ultimate objective of incentivizing investment in broadband deployment. Moreover, as noted above, the creation or exercise of any such regulatory authority would raise significant Constitutional concerns.

Thank you again for the opportunity to comment.

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<sup>1</sup> The FCC has used the term “edge provider” in its *Open Internet* proceedings. The Commission defined the term “as referring to content, application, service, and device providers, because they generally operate at the edge rather than the core of the network.”

<sup>2</sup> “In the *Open Internet Order*, the Commission specifically found that the Internet’s openness enabled a ‘virtuous circle of innovation in which new uses of the network—including new content, applications, services, and devices—lead to increased end-user demand for broadband, which drives network improvements, which in turn lead to further innovative network uses.’ [citation omitted]. For example, the Commission explained that innovative streaming video applications and independent sources of video content have spurred end-user demand, which, in turn, has led to network investments and increased broadband deployment. *Protecting and Promoting the Open Internet*, NPRM, at para. 26.

Congressmen Greg Walden and Fred Upton

United States House of Representative

Washington, DC

June 9, 2014

Dear Congressmen:

Thank you for another opportunity to comment on Communications Act Update, a process to modernize regulation for communications industry.

In my day to day work in Europe with European companies, I use American made internet services and applications such as Google, Facebook/WhatsApp, Twitter, Adobe, and even Skype (though largely supported through my home country of Estonia). I also use an iPhone and the Android operating system. I observe that the American regulatory environment has encouraged the both the networks and the applications that support the internet, and this has become a platform for export for digital services and devices. The EU wishes it could get the success of the US, but its efforts to create a digital single market is failing. The situation in Europe is exacerbated by American over the top providers which are able to compete with preferential conditions compared to the national telecom providers. Telecom providers have a long list of obligations from taxes, licenses, data protection, reporting requirements which over the top providers do not have to satisfy, even though both deliver the same communications services.

Estonia example

It just goes to show that with it's not the number of competitors that create competition, but the level of technology. If you make any rules about communications, they should apply equally to all providers regardless of technology or business model. This is the only way to be a level playing field.

I enclose a copy of my editorial from Multichannel News which gives more insight to the US-Estonian comparisons

Sincerely,

Karin Kalda

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<http://www.multichannel.com/blog/mcn-guest-blog/broadband-grass-always-greener/373700>

Multichannel News, April 4, 2014

With Broadband, the Grass Is Always Greener

Americans and Europeans have long sparred over who leads in broadband. Some Americans advocate for the U.S. to introduce a European Union regulatory model of unbundling and government intervention, while top E.U. officials have pushed for a more cautious approach to spur private investment.

So who is right?

My own, European perspective offers instructive lessons. I am from Estonia, the home of Skype. Estonia is frequently mentioned as a model for Europe because of its digital readiness.

But these reasons don't explain the whole situation.

While Estonia is proud of Skype, one company cannot create the vibrant innovation seen in the U.S. To create economic development in information and communications technology, a country needs continued innovation and massive capital investment to deploy and continually improve its broadband networks. Two decades ago U.S. policymakers decided on a light regulatory approach. This ultimately made America the

world's digital leader.

From the early days of the Internet, the government incentivized providers to invest in infrastructure and develop new technologies. Consequently, since 1996, the U.S. broadband industry has invested more than \$1.2 trillion into the economy. Furthermore, recent OECD estimates show that investment in U.S. Internet networks is more than 50 percent higher per capita than in Europe.

The lack of European infrastructure-investment is evident in the penetration of the advanced networks across the continent: Europe had only 6 percent of global LTE connections in 2012; (the U.S. accounted for 47 percent). This is not to say that the U.S. has the perfect Internet policy for today's digital age.

America's communications laws were last updated 18 years ago and have grown increasingly obsolete as the Internet rapidly evolves. The Communication Act, which cautioned against heavy regulation of nascent Internet providers, spurred investment and innovation; but its time has passed.

As U.S. policymakers begin their work, they can look to Estonia - which built its ICT sector from scratch - for a foundational principle: we created regulation in which all networks are equal.

The U.S. should eliminate old classifications and silos. Distinctions between telephone, cable, fiber, VOIP, and mobile have no value in an all-digital world.

Regarding the U.S. versus E.U. debate, the right regulatory path has produced clear results. Every day, I use software, hardware and social platforms developed by American companies. Fifteen of the top 25 Internet companies are American, while only one is European.

The E.U.'s top broadband policymaker, Neelie Kroes, recently stated that "success or failure in wireless does not happen by chance: it depends on the policy decisions we take." The U.S. wisely chose light regulation, and as a modernized Communications Act is developed, policymakers must remember this approach.

Karin Kalda is a Senior Consultant with Insight and Analytics, a Denmark-based digital marketing agency.

June 12, 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

Dear Congressmen Upton and Walden:

Congratulations on your efforts to update the Communications Act of 1934. This is a momentous undertaking which will have a global impact.

I am Datis Khajeheian, lecturer and researcher in Aalborg University in Copenhagen, Denmark. I earned a PhD in media management, and a M.A in Entrepreneurship; New Venture Creation from the University of Tehran, Iran. The convergence of entrepreneurship in digital media has been the subject of my research for the last eight years, with focus on Media Entrepreneurship and its supporting factors, while my PhD thesis, “Media Entrepreneurs’ Digital Innovation Commercialization” was dedicated to this subject and the current research topic I am engaged with now: how public service broadcasts can foster entrepreneurship in an era of audience fragmentation, technological convergence, and emerging niche markets. My key publications are summarized at the end of this letter.

In addition to my academic background, I have practical experience in entrepreneurial activities in the digital media industry with my enterprise “Drop Fun”, which focuses on psychological aspects of users and innovating new techniques in user engagement such as news gamification and so on. Through the company I am able to conduct experiments in real a business environment and obtain valuable insight from the new media field.

Allow me to share my insight informed from my roles as Senior Researcher at the National Iranian Center for Globalization Studies, lecturer at the University of Tehran, and now lecturer and researcher at Aalborg University, in addition to my experience as a new media entrepreneur. The letter reflects my perspective of the different media landscapes in Iran, Europe and the US and hopes to provide relevant commentary to the update of the Communications Act.

### **The American Essence: The Self Correcting Capabilities of Capitalism**

There is no doubt that the US has played a role to further humanity by the technologies its companies gifted to the world, especially communications. The products and services of American enterprises connect people

around the world beyond political and geographical borders. Better standards of living, access to knowledge and education, cultural values and any other brilliant gifts are the result of the US.

America inspires the world in value creation, innovation, and freedom. Many of these achievements are a tribute to the American capitalist economy and its reliance on free markets and the admirable way in which the system corrects itself. As such, market economies solve their own problems through invention, innovation and regeneration. It is important for authorities to keep this mind, particularly when they think they can do things better. Despite some problems, the American capitalist framework provides the best means for solving problems, and the American economy consistently revitalizes itself from crisis, self-corrects, fixes faults, and fosters new industries.

To discuss regulation, one must consider both the context of regulation and the perspective of regulators. Regulation for communications technology as part of an industrial sector cannot be performed without consideration of the American spirit which influenced deeply from capitalism.

Also with regard to the great influence of US economy and industry worldwide, in undertaking an update of the Communications Act, Congress should be mindful of the global impact of the American economy and its regulation, particularly the communications sector. The level of American market development and diversity of products and services exceeds every nation on Earth. The most enterprising, entrepreneurial and innovative people in the world want to come to the US. The US has not only the mindset to realize innovation, but the infrastructure and physical communications networks.

Similarly the US is a pioneer in the media market. While some may characterize the American content players as behemoths, they can be a global force for good. Additionally the US is a pioneer in evolutionary changes and disruption. Every time the world expects disruptions to harm the US economy, American innovation creates a new paradigm to replace the old. Indeed if American firms are not getting disrupted, they are doing the disruption themselves. As Steve Jobs observed, “If you don’t cannibalize yourself, your competitors will.”

When we talk about communications regulation, we talk about setting some limitations for a social phenomenon. Of course it is not bad to set limits to ensure equality, fairness and competition. But there are some concerns to consider when making so-called regulatory wisdom a permanent presence and the potential impact to the flexibility and dynamism of the industries which the regulation purports to deliver.

### **The Changing Nature of Technology: A Fundamental Conflict of Regulation and Technology**

First, communications technology is the construct of human beings. It is subject to growth, change, and renewal. This is an important point which should inform the approach the regulation of communications. Regulation for communications needs to be built for change.

In addition regulation requires a deep understanding from different aspects of the subject of regulation. While communication technology evolves quickly, regulation is a slow and deliberated process. Every advance and innovation in technology is an opening of a new opportunity, and it is impossible know how the regulation will impact, if not deter, possibilities in the future. Essentially no regulator can ever know all the things he needs to

know to make a good regulation, for that reason he needs to proceed with caution. Do not repair what is not broken.

Another challenge of regulating communication technologies is the emergence of new market elements which are unknown before they appear. In my research about the media market, I observed how new players create value. Many actors emerge with a new technology or in response to a new service development. So as regulations aim to help the market to be more effective and capable for proposing the best value to the costumers, this is very important to be aware of the vulnerability of market in case of setting regulations which neglect any aspects in benefit of customers or companies. Lack of ability to predict what the future market needs and what new agencies, companies, services, value chain participators, models of interaction and profit makings and so on would be, make the process of regulating complicated and challenging. Thus regulation, because of the restrictions and uncertainties it creates, can make companies and consumers vulnerable, and thus curtail new technologies and service development from emerging.

Though it is unrealistic to expect perfect competition, the American market reaches closer to any in the world in perfection. In its value chain we find all the factors and elements necessary for competition. If we look at the American market for communications we can find many networks, many customers, many devices, many providers of content, and many applications. Consumers have more ways than ever to access the content of their choice, not only by different content providers, but on different networks, devices, formats, and at price points.

In my master's dissertation, I studied the toy industry. In the process of outsourcing the manufacturing of toys to China, a number of Americans who were previously employed in manufacturing of toys in the US was reduced. However new jobs were created in toy design and related functions which didn't exist before outsourcing. When I recalculated the numbers of losses and created jobs, I found out that American Market remediated the toy industry upon the situation to provide more space for advances and promotion of industry.

This regenerative capacity is found in other sectors, especially in communication technologies. When one process or technology is outsourced or decommissioned, it opens a window of opportunity to other sections of market and provides new capacity for innovation, research and development. Look no further than the market for mobile phones. There are more mobile phones today than there were old-fashioned telephones in the world. Similarly today's communication network technologies are more advanced and innovative delivering an increasing range of data services than was ever conceived from a simple telephone network designed for voice.

### **Policy rather than Regulation**

Allow me to make the distinction here between regulations, which may consist of hard rules, versus policy, which may refer to softer norms. The white paper for this request for comment is particularly concerned with "competition policy". In this way, it is better that the Communications Act encourage the policy norms than enforcing hard rules. To put it in other words, good regulation should encourage new entrants rather than punish successful companies or prevent them from further progress.

This can be observed in how current communications policy debates are polarized with an artificial dichotomy between networks and edge providers. These debates create needless antagonism, posing a false choice between innovations either within the network or at the edge. The reality is that both of these actors evolve together; and generally, each drives the other's innovation. Thus it should not be the regulator who

chooses the winner. The good policy choice allows the ecosystem as a whole to evolve. That does not happen by placing detrimental rules on player for to the seeming benefit of the other. If we respect the American spirit which is based on admiring the successful for their achievements, government deserves to choose supportive policy for encouraging new comers by lowering entry barriers. This is an entrepreneurial policy which promotes American market and guarantees the competition.

### **Media Conglomerates and Challenges for Regulations**

Let us take the case of the famous “Big Six” studios of Hollywood. A number of academics in media economics have characterized these companies as an oligopoly, suggesting that because of their broad power in the entertainment value chain that they create barriers for other players to enter the market. The evidence of whether this is the case is debatable. In any case, the situation is an interesting one for regulators. Do they punish the Big Six, or do they create an environment where new entrants can create competition?

Historically regulators sought the control the power of the Big Six, but interestingly, they are still around. Dreamworks is still trying to secure itself in this position. If the government punishes a company in one area of value-creation, the rational firm will attempt to find another, and that is what happened. However it needs to be stated that these companies have only succeeded to the extent that consumers have valued their offerings in the marketplace.

Thus it does not appear that regulation even works to topple “big media” .However, the entertainment value chain and media distribution has evolved, whether because of or in spite of regulations. It is highly diverse and disintermediated, and to claim that the Big Six control the entertainment future is nonsense. So what was the point of the heavy-handed regulation? Did it really serve consumers? Was it the best use of citizens’ regulatory resources? What could have regulators done differently?

### **Policy: From Prevention to Support**

A better role for government policy is the support of new comers, entrepreneurs and small companies. The focus of regulation to control and limit the power of conglomerates –which mostly fails—should instead be to encourage and help the new companies enter the market. Support could include lowering of licensing requirements and permits. It could include subsidies for a limited time. My point is that the governmental focus should be a *policy for support* not a *policy of punishment*. Regulation should not be concerned about controlling the power of successful companies but rather removing the barriers for entrants and perhaps supporting the development of new business models and innovations.

Thus the role of government should be to fill the gaps in an imperfect market. This consists in observing whether all the factors and actors of the value chain are present and working.

Of course, I appreciate regulation as mean of government to save the society from anarchy. One way to avoid the danger of regulation is to engage in a scenario planning exercise. Scenarios are way to explore possibilities without harming the market. Conducting such an exercise could be a valuable effort to inform the policy making process.

## **Value Creation: a Paradigm Shift from Mean to End**

One of the challenges in regulation setting is the intrinsic tendency of regulators in sticking to the regulation and seeing it as the very aim, instead of a mean for reaching a goal. This trap is pervasive with bureaucracies and happens when regulators engage on the technical aspects of law making and setting limitations, which betrays from the main intention of regulation setting. Thus the regulation becomes a barrier itself instead of a mean for assisting to get the purpose. For preventing this trap, which is in essence of regulations, changing the focus from “mean” (Regulation) to the “goal” (Value Creation) may be the most important paradigm shift in the strategic landscape of the Commission.

For a better explanation, a brief about media entrepreneurship and effective media market as the context seems required. The keyword of value can play a critical role in our discussion. The key purpose of the market in free economics is to offer “value” to customers. In my definition, value is something which the customer is willing to pay for it with money, time or energy. Those things which are desired include products, services, know-how, models, pattern, process, infrastructure, etc. The companies that operate in media markets compete on proposing value to their target customers and get paid for it. Companies develop business models based on value. They access customers and deliver the value for which they receive revenue in return. There are many types of business models, and they are an integrated part of effective media market.

In addition, there are a range of agents and facilitators to this process, such as clusters, cooperative entities, venture capitalists, banks and financial institutions. These actors participate in designing and implementing new ways of offering value to customers. Here I must attest to why the American media market is so effective: there are investors willing to take risks to support new technologies and business models. This risk taking leads in fostering entrepreneurship, new venture creation, new business models, space for innovations and especially user activities.

The goal of regulation and policy should be to assist the “Value Creation”, not preventing value, innovation or the growth of companies. This goal should be considered in any debate about setting regulation.

When we mention the media convergence as an influencing trend and new emerging concepts such as e & m-health, e & m-banking, e & m- education, e & m-transport and so on, the uncertainty and ambiguity of the future situation for regulation is apparent. Therefore, rather than rely on ex ante sector specific regulation for the ever evolving internet and communication sector, a shift to an ex post general competition regime is preferable.

### **Some thoughts about users**

User innovations are an important area for communication policy. This area is frequently neglected both in entrepreneurship and media studies, mainly because of their relatively small portion in content creation. So far, users are mainly the subject of study and attention as consumers of content and consumers who pay for product/service. However with the emergence of Web2.0 and a dramatic increase in user generated content, users will have increasing attention in media policy, as well as privacy, security, content, competition, etc. Users’ innovation is also a source for media entrepreneurship in digital platforms. Again, scenario planning can play a role in policymaking to explore the challenges and opportunities for greater user agency in the media landscape.

There is no doubt that large American ICT and media companies are a force throughout the world: Google, Apple, Facebook, Microsoft, Amazon, Verizon, AT&T and so on. Together with communications networks these companies deliver global access and connection, making life better. They create new goods and services, and their presence brings competition and innovation. There is no doubt that the quality of our ICT and media experience has improved over time. Even though internet traffic has increased dramatically, prices have fallen. This is the essence of technology evolution and as such, there is no need for regulator to intervene on this natural and good process.

As for the issue of whether content should be free or paid, the fact of the matter is that the web drives content to be “free” (or advertising supported). Indeed the idea that “zero rating” (e.g. Google Free, Facebook Zero etc) should not be allowed goes against the digital forces which tend to bundle content and the general trend for free content. However if companies can succeed to charge for content, then they communicate a value proposition that customers desire. There is nothing wrong with this. This is only an outcome of supply and demand. Consumers are the natural regulators here. They should choose the packages they want, not a government decree.

Thus it seems reasonable that instead of punishing and preventing conglomerates with limiting regulations, supportive policies for assisting the new competitors to enter the market are better solution. I suggest that promotion of competition (market discipline) is preferable to regulation.

### **Some thoughts on net neutrality**

Network access is not the real concern in the US. The country is well-provisioned with multiple next generation networks: mobile, fiber, DSL, cable, satellite and so on. But the debates in this issue deeply neglect other aspects of neutrality, such as search and content neutrality. While Americans have access to some of the best broadband networks, neutrality is not present in search engines, social networks, app stores, operating systems, and so on. Lack of neutrality in access to content by advertised keywords in search engines is an issue. So while Americans have many options for communication networks, the greater concern is with the diversity of content, delivery of it, and its authenticity. Discussions on net neutrality should involve these areas and mention them as challenges of communication sphere.

Innovative and possible disruptive infrastructure technologies are in the works. Google has an ambitious project to develop satellite capabilities for internet service. While this mentions as strategic concern by vertical integration in industry level, at the same time this is a sign of paradigm shift in the infrastructures, so that internet providing changes by new technology and new players. The consequences of such ideas, which even by defeat of this project very likely will continue in the future, change the net neutrality debates with the new landscape which free internet access out of governments’ control provides for nations and new unknown challenges and opportunities will emerge. Similarly we have seen Google invest in its own wireline fiber network and Facebook explore the possibility of broadband by drones.

As such, the government need not punish existing network owners for earning market power. Competition from other technologies is already emerging. The government does not need to regulate here. The natural market forces are working.

In summary, we should be very careful about setting a regulation which may prevent the free movement of market players for proposition of new value. It is almost impossible to understand the future requirements of the market and set rules in advance. Thus the emphasis on “Policy” instead of “Regulation” is preferred. While in regulation we need to be precise in details, policy, with scenario planning, can help to set norms such as around competition, infrastructure, content, privacy, security and governance.

I hope these comments offer a different perspective in regard with Communications Act Update. It would be an honor to participate in any session, hearing, call or other ways to assist the better update of the act to empower American technological and media companies for tapping the emerging opportunities and to create value with the total capacity for customers worldwide, which makes the world better place to live.

Sincerely,

Datis Khajeheian  
Aalborg University Copenhagen  
A.C.Meyers Vænge 15  
2450 København SV  
Denmark  


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## Appendices

### The paper and publications

**“New Venture Creation in Social Media Platform; Towards a Framework for Media Entrepreneurship”**in: MIKE FRIEDRICHSEN, WOLFGANG MÜHL-BENNINGHAUS (Eds), *"Handbook of Social Media Management; Value Chain and Business Models in Changing Media Markets"*, Springer, 2013

**“Cooperative Marketing Alliances For New Products Commercialization As An Entrepreneurial Strategy: An Analytical-Comparative Study Of Football Industry’**, *African Journal of Business Management Vol. 6, No.13, pp. 4734-4741.*

**“Information Technology and Media Convergence: An Entrepreneurial Approach towards Media Matrix Management”**, *African Journal of Business Management, Vol.6, No.29, pp. 8483-8489*

**“Media Mix To Perform Public Relations Functions: A Comparison Of Mass And Digital Media Usage In Banking Industry Communications”**, *Science Series Data Record, Vol4, Issue 10, pp 99-106, Thomson Reuters ISI indexed.*

**“Future of Television in Global Media Ecosystem: a Policy Making Perspective”**, *Wulfenia Multidisciplinary journal, Thomson Reuters ISI indexed, Vol20, No4, april, 2013.*

**“Create Value by Co-Marketing Alliances: Developing Sponsorship In Iranian Football”**, *International Conference of Science and Football, Tehran, 2009.*

**“Remediation Of Media Markets Toward Media Entrepreneurship, How Recession Reconstructed Media Industry”**, *European Media Management Association Conference 2011, Moscow.*

**“Participatory Media And Fostering Media Entrepreneurship; The Changes In Markets And Business Models In Developing Economics”**, *Swiss Association of Communication and Media Research (SACM) Annual Conference Proceedings 2012.*

**“Media Entrepreneurship Policy: Transition of Developing Economies towards the Global Knowledge Economy by Promoting Digital Media Enterprises“**, *Knowledge Globalization Conference, Istanbul, Turkey, May 08-09, 2013*

**“Exploration of the Metrics for Evaluation of Media Performance; A practical study based on Digital Media Role in Contemporary Social Movements”**, *Research Project in INCGS, 2012*

**“Media consumption pattern in Iranian youth under Globalization of Media and emergence of social networks”**, *Research Project Supervisor in INCGS, 2013*

**“Designing Interactive Model Of Media Management Using Modern Information And Communication Technologies”**, *Quarterly Journal of communication research, No 4(60), winter 2010, pp11-36, in Persian*

**“Metrics For Measurement Of Commercial Advertising On Audiences In IRIB”**, *Journal of Business Management, Vol2 No4, 2010, pp53-72, in Persian*

***“Knowledge Management In Entrepreneurial Firms: Organizational Factors Influencing Knowledge Creation And Knowledge Transfer In The Iranian Informatics Industry”***, Journal of Entrepreneurship Development. Vol3, No 11, Spring 2011, pp27-46, in Persian

***“Conceptualization Of The Media Policy: Exploration Of Factors, Process And Venue”***, Quarterly Journal of Communication research, Vol 18, No 1, Spring 2011. pp 11-40, in Persian.

***“Formulating a Directing Model for Urban Management to Entrepreneurship Development”***, Journal of Urban Management Studies, Vol 2, issue (3), Autumn 2010, pp119-131 in Persian

***“Introducing an Appropriate Management Paradigm In Media, to Achieve The Objective Of 'The Year Of Attempt And Work' Combining Organizational Management Patterns”***, Quarterly Journal of Communication Research, Vol 18, No2 (66), Summer 2011, pp73-102. in Persian

***“Planning Of Media Market Strategic Management System To Commercialize Digital Innovations”***, Journal of Strategic Management Studies, No 4, Winter 2010, pp 238-265. in Persian

***“The challenges of IRIB in Media Advertising; investigation of the evolution in Television commercial ads under emergence of new media in Iran”***, Quarterly Journal of Resaneh, Vol 23, Issue 1, spring 2012, in Persian

To whom it may concern:

Late last year I wrote an op-ed in my local Columbus business journal with some suggestions from an entrepreneur's perspective for FCC Chairman Tom Wheeler's work at the Commission. In my op-ed, I noted that a multitude of technologies – including satellite, fiber, cable, telephone and wireless – supply broadband service. In Chairman Wheeler's first public address at Ohio State University in December, he acknowledged this competitive landscape and specifically said, "competitive markets produce better outcomes than regulated or uncompetitive markets." Many tech entrepreneurs likely agree with this position.

I understand Congress is currently addressing competition in its update of the Communications Act. My hope is that any updated laws should not hinder this dynamic competition among Internet-related businesses.

Thank you,

Chip Kohrman  
Founder, Telesaur.com  
<https://www.telesaur.com/about/>

<http://www.bizjournals.com/columbus/print-edition/2013/12/27/chip-kohrman-keep-regulators-from.html?page=all>

Dec 27, 2013, 6:00am EST

**Chip Kohrman: Keep regulators from intruding broadband com networks**

The confirmation of Central Ohio native [Tom Wheeler](#) as [Federal Communications Commission](#) chairman is a promising development for Ohio's technology entrepreneurs.

Wheeler recently spoke at [Ohio State University](#), his alma mater, to "articulate a regulatory philosophy" for his tenure as chief regulator for America's communications networks. The speech echoed the pro-competition position he has consistently taken, saying "competitive markets produce better outcomes than regulated or uncompetitive markets."

Wheeler understands that today's innovators rely on a fast, accessible broadband network that needs to be free from burdensome regulations that stymie innovation.

Now, more than ever, it is critical Wheeler follows through on his commitments when it comes to this approach to broadband policy. Ohio's strides to build a 21st century economy depend on it.

The advent of broadband has been a boon to entrepreneurs, helping companies operate in ways previously not contemplated. For example, the rapidly evolving practice of telecommuting enables workers and employers to save time and money.

To thrive in Ohio, my Columbus business requires a robust broadband Internet network. More than 97 percent of Ohio households have access to broadband, and 71 percent of residents have adopted broadband technology – above the 66 percent national average.

This widespread Internet access has enabled Ohioans to embrace telecommuting. About 783,000 residents rely on broadband to telework an average of 2.3 days a week, allowing for 2.19 billion fewer road miles traveled and reducing carbon dioxide emissions by 1.97 billion pounds annually.

The success of telecommuting and other digital endeavors has encouraged a flood of private investment into broadband infrastructure. According to the FCC, private businesses have invested nearly \$250 billion over the past three years. A report from the [Progressive Policy Institute](#) found that six Internet providers

ranked among the top 25 contributors of private investment in the U.S. economy, and those six companies invested more than \$50 billion in 2013.

These investments have led to real increases in consumer speeds. The content delivery network company [Akamai Technologies Inc.](#) has estimated that year-over-year connection speeds have increased 22 percent due in part to these investments.

This private investment also has led to a dynamic landscape in which many technologies compete to provide broadband to consumers. As economist [Bret Swanson](#) outlined in a recent report, a multitude of technologies – including satellite, fiber, cable, telephone and wireless – can supply broadband service. This competitive landscape has wired and wireless providers continually introducing disruptive technologies and services. Innovations in broadband offerings force these companies to invest more in Internet infrastructure and compete with each other to provide better service at cheaper prices to consumers.

But for Ohioans to take advantage of these technologies, we need to keep implementing and maintaining broadband policy that takes a restrained approach to regulation and encourages private investment.

Wheeler recognizes the importance of this approach and has warned of heavy-handed regulation in the industry. A self-described “unabashed supporter of competition,” he is critical to ensuring that businesses like mine survive. Wheeler must do everything within his power to ensure his actions in office reflect his past statements.

Our world-class Internet networks paved the way for the growth we have seen in telework. U.S. broadband networks not only are fast but they’re open and universally accessible. The interoperability among service providers, technologies and areas of the country are seamless.

Whether on the road, in a home office or at corporate headquarters, employees can use broadband connections to work from their location of choice on their device of choice. Without the open and accessible Internet, telework wouldn’t be possible.

The combination of private investment and a non-intrusive approach fortifies our broadband network, paving the way for companies like mine to succeed. In the end, this combination will allow the entrepreneurs of tomorrow to succeed and create technologies, making our lives easier and more efficient.

*Chip Kohrman is the founder of Telesaur.com, a telecommuting job search company based in Columbus.*

June 13, 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*

Dear Representatives Upton and Walden:

Thank you for your continued leadership on the vital issue of updating America's Communication Act and for another opportunity to participate with comment. Enclosed please find two articles I have written in support of this important effort. The points I wish emphasize include

- Competition is created by the level of technology, not the number of competitors.
- A market-led, technology neutral approach is best for communications regulation and policy.
- Outdated classifications conceptualized for the world 80 years ago should be retired in favor of a common regulatory framework for all technologies, services, applications, and business models.
- Responsibilities of the FCC should be refined to enforcement of communications policy, not rulemaking.
- A uniform set of consumer protections for all digital technologies should be enforced by the Federal Trade Commission, which has the expertise in this area and is best suited to enforce net neutrality and anti-discrimination rules which should apply to all players in the value chain.
- When it comes to emerging issues, relying on standard setting and guidance from multi-stakeholder organizations is preferable to regulation.

Please keep up your good work.



Roslyn Layton  
Ph.D. Fellow, Internet Economics  
Center for Communication, Media and Information Technologies  
Aalborg University  
Frederikskaj 12, 3rd Floor  
Copenhagen, Denmark 2450

Enclosures

Article from *InsideSources* 11 June 2014

Article from *Roll Call* 25 February 2014

<http://www.insidesources.com/what-is-good-regulation-and-consumer-protection-in-the-age-of-convergence/>

## **Inside Sources**

### **What is good regulation and consumer protection in the age of convergence?**

June 11, 2014 by Roslyn Layton

Convergence refers to the combining of communications, computing, and content. It can largely be understood as technological evolution, but also one of industry and services. In the last 50 years we have seen the merging of the telephone, television and personal computer. While the benefits may seem obvious, these profound changes create difficulties, particularly in the area of regulation. Each one of these systems is governed by a different set of rules and regulatory agencies. Who then should be in charge when all these networks, devices, and services merge?

It is exactly this question which is being investigated as part of a bipartisan Congressional effort to update the Communications Act. This act, which dates from 1934 and calls upon railroad regulation going back to the 19th century, created the Federal Communications Commission (FCC) and stipulates how America regulates its vital communications networks. It was envisioned in the era of the radio, telephone, and the emerging medium of television. The Internet did not exist at the time.

Consider just a few examples of the convergence which challenges the efficacy of the Communications Act.

Microsoft, a desktop/laptop software developer, acquired Skype, a voice and video over internet conferencing service that rivals traditional voice service. One third of the world's long distance calls are delivered by Skype. Microsoft also offers an operating system for mobile phones. Even though it is a substitute for voice service, Skype is not required to integrate with public safety authorities or to interconnect with other networks, unlike traditional telecom operators.

Facebook, a digital social network with 1.3 billion users acquired WhatsApp, a texting app that competes with the SMS services of wireless broadband providers for \$19 billion. WhatsApp users text 5-10 times as much as traditional SMS users, and the daily text traffic of WhatsApp exceeds the traffic of most traditional telecom operators. However WhatsApp has no requirement to connect with other networks, unlike traditional SMS providers.

Apple, a leading provider of electronics, introduced a free SMS service and video telephony service, Facetime. Both products are bundled on Apple devices and compete with the services of traditional telephony providers. Apple need not comply with the Communications Act even though it offers communications services.

Google, a search engine and video provider, operates the world's leading mobile operating system Android installed on 750 million devices. In addition to its range of communication services (Google Voice, GTalk,

Google Hangout etc), the company entered the wireline broadband market with fiber deployment in Kansas City, Austin, TX; and Provo, UT; with another 34 cities targeted. Rather than comply with the traditional regulations required by cities such as kickbacks and payments for rights of way. Google conducted a competitive process amongst cities to see which would give it the best conditions, such as tax breaks; free rent, utilities and accommodation; access to existing infrastructure and so on. Google is also a de facto Tier 1 provider, having built not only massive servers centers and data farms, but an undersea network to deliver its own data, cache videos and so on. Google prioritizes traffic on its massive network, larger than most of the world's telecom operators, but is not required to comply with net neutrality.

Amazon, founded as an online marketplace for physical goods, offers streaming video service Amazon Prime. Amazon is on track to overtake the traditional publishing industry through its Kindle, Paperwhite and Fire e-readers, each equipped with SIM cards that connect to communications networks. To deliver books digitally, Amazon became a de facto MVNO (mobile virtual network operator) by buying traffic from telecom operators and reselling it to publishers and authors who are charged a fee to cover the cost of book delivery, similar to postage. For its physical goods, Amazon uses free shipping to win market share. This program, a "sponsored data" for the physical world, is supported by customers with a \$99/year fee.

Aereo, a company that deploys individual remote antennas allows viewers to watch broadcast television via the internet, provides a competitive alternative to cable television.

Streaming video provider Netflix, which accounts for some 30% of traffic on America's network at any time and more than 30 million customers in the US (more than any telecom or cable provider), announced its services to be viewable from proprietary set-top boxes, as well as different pricing tiers corresponding to different qualities of services for video. Net neutrality would make offering different quality tiers for a fee illegal for telco/cable companies but not Netflix.

Presently there is a double-standard in regulation for communication services. Traditional telecom, cable, television, and radio services have to abide by 1934 standards while internet providers which also offer voice, video, text, data services are only subject to general competition law. That means they are not disciplined unless there is proof that they've done something wrong. This is a problem not just for competition, because clearly there is not a level playing field, but this is also a problem for consumer protection. Consumers have a different set of protections and methods of redress depending on which service they use.

There are two ways we can go: we can either add regulation to all the internet providers, or we can transition all traditional communications providers to a general competition law framework. The Federal Trade Commission, which has the most experience and knowledge in competition law and consumer protection, makes sense to oversee this.

In any case, if we are going to the trouble to protect consumers from discrimination (as net neutrality supporters claim), then we should ensure that they receive the same protections across the board without regard to the type of technology they use, whether network, device, content, application, or business model.

Technology advances too quickly to apply technology-specific rules. It's time to retire the regulatory silos created in 1934 in favor of a general framework that applies equally regardless of technology, provider, or business model. The goal should be to create a common regulatory framework that is technology neutral so that all technologies are treated the same. In a world of convergence, this is the only way to a level playing field for competition and to ensure that consumers have a fair and transparent experience.

About the Author

*American Roslyn Layton is a PhD Fellow at the Center for Communication, Media and Information Studies at Aalborg University.*

[http://www.rollcall.com/news/realizing\\_the\\_digital\\_future\\_means\\_letting\\_go\\_of\\_the\\_past\\_commentary-230986-1.html?zkPrintable=true](http://www.rollcall.com/news/realizing_the_digital_future_means_letting_go_of_the_past_commentary-230986-1.html?zkPrintable=true)

## ROLL CALL

Realizing the Digital Future Means Letting Go of the Past | Commentary

By Roslyn Layton

Feb. 25, 2014, 5 a.m.

Apparently some members of Congress think about more than re-election.

[Fred Upton](#), R-Mich., chairman of the House Energy and Commerce Committee, and [Greg Walden](#), R-Ore., chairman of the Communications and Technology Subcommittee, have launched a multi-year effort to reform the Communications Act of 1934. Already their effort has been lauded by Tom Wheeler, chairman of the Federal Communications Commission (FCC), who deemed the effort warranted and necessary.

Signed into law by Franklin Roosevelt, the Act established the FCC and a silo framework to govern communications by radio, television and telephone. Cable was added in 1984. Congress last updated it in 1996.

It borders on the trite to say it, but we live an age of convergence, where information, communication, and technology have merged. Service providers no longer fit the silos. Telephone and cable companies provide information and communication services, two increasingly obsolete categories in the Communications Act. In addition, new players such as Google, Facebook, and WhatsApp also provide information and communications services, but are not governed by the Communication Act. Standardized definitions applied fairly are needed to make a level playing field for competition.

To a large degree, innovation in broadband networks have enabled an improvement and diversification of services. As consumers we have come to expect the ability to access digital services anywhere and anytime on secure networks at a good price. And we have come to this point not because of regulation but in spite of it.

It is difficult to find the evidence that regulation created the innovations we enjoy today. Who knew that coaxial cables laid in 1948 could become a foundation for cable broadband? Or that copper wires could be recalibrated to conduct data at speeds of 100 megabits per second? Is the fact that the U.S. has the highest concentration of Long Term Evolution (LTE) devices and networks the result of enlightened regulatory policy, or an accident of history wherein the U.S. happens to be a large single market providing mobile providers with great scale? Indeed, regulators are often the last to know, much less create, what is happening in the world of innovation.

Though there is broad recognition that the Act needs to be updated — evident in the 116 respondents to the initial request for input on the rewrite — there is some concern that common carriage provisions need to be maintained, if not strengthened, to serve the public interest. Yet common carriage, a concept from transportation, has largely been disbanded in the transportation industries that have been deregulated.

Telecom regulation experts suggest that competition can ensure the desired outcomes. The 10th Anniversary Edition of the Telecom Regulations Handbook from 2011 observes: “Regulation has potentially high costs. The regulatory process is inherently time consuming to administer and requires considerable expenditure of resources. In addition, regulation can have unintended consequences which may be detrimental to customers and the ‘public interest’. No matter how capable and well-intentioned regulators are, they will never be able to produce outcomes as efficient as a well-functioning market.”

Competition experts have long maintained that if antitrust law is applied correctly, there is no need for industrial regulation and subsequent tax burdens. In the Netherlands and Denmark, government sees the key to consumer protection through increased competition and, if necessary, a consumer authority that has the power to prosecute when there is evidence of abuse of market position and consumer harm. A modern Communications Act should implement a similar standard where regulatory actions are taken and only in cases of demonstrable harm to consumers or competition.

Republicans and Democrats have identified a problem and have come together to begin the process to modernize and reform the Act. As Chairman Wheeler said, “All of us have observed the growing convergence of previously separate and distinct communications services and with it, inevitably, the growing obsolescence of the Communications Act’s categories.” The last bipartisan effort on communications was in 1996 when telephone companies were released from some of their Title II obligations of the Communications Act. The result was a flourishing of activity to provide internet services. That the parties should come together again should only be encouraged, and shows that the best way for Washington to support the future is to remove the barriers that keep us stuck in the past.

*Roslyn Layton is a doctorate fellow in the Center for Communication, Media and Information Studies at Aalborg University in Copenhagen, Denmark. She is also a vice-president of Strand Consult, an independent consultancy for mobile operators, and a visiting fellow at the Center for Communications, Information and Technology at the American Enterprise Institute.*



## Latinos in Information Sciences and Technology Association

██████████ @LISTA1 251Fort Washington Ave. New York, NY 10032 ██████████

June 13, 2014

Representative Upton  
Representative Walden

Dear Representatives Upton and Walden:

Latinos in Information Sciences and Technology Association (LISTA), an organization dedicated to empowering Latino technological and scientific engagement, advancements, broadening awareness of the impact Latinos are currently having on these sectors, and concurrently representing their overall interest within the digital information age, submits these answers to the questions posed by the white paper recently released by the House Energy and Commerce Committee. Given the importance of new communications technologies to America's Latinos, these issues are of pressing importance to our community at large.

Q1: How should Congress define competition in the modern communications marketplace? How can we ensure that this definition is flexible enough to accommodate this rapidly changing industry?

To the great benefit of consumers and businesses alike, the modern communications marketplace is extraordinarily competitive, a trend that is only increasing. Companies across business sectors are increasingly competing with each other directly, outside of their traditional areas of focus. Whether Google is expanding into Internet service via Fiber or Microsoft's Skype is acting as an alternative to traditional phone service, the traditional divisions between technology firms are blurring.

For a society dependent on everyday access to affordably priced communications offerings, such developments are extremely positive. For Latino populations that are engaging in these sectors, they are crucial. Congressional policy should seek to foster an environment where this overlap can occur on a dynamic basis, with firms free to experiment with different offerings and partnerships.

In order to do that, any Communications Act update must abolish the silos that currently govern this area of the law. By subjecting companies who offer comparable services to different regulatory regimes, Congress distorts the marketplace and inhibits the development of new technologies and services that would enormously benefit consumers,

especially disproportionately underserved Latinos. A technology neutral approach to communications policy is the best answer for allowing this vibrant sector to bloom into the years ahead.

Q2: What principles should form the basis of competition policy in the oversight of the modern communications ecosystem?

Instead of the silo approach described above, Congress should prescribe a “light-touch” regulatory policy that incorporates a multistakeholder approach from across the industry. Prescribing an even playing field for all competitors will allow for a more fruitful competitive environment, leading to the most beneficial outcome for Latino consumers, as well as consumers in general. Congress needs to move away from decades-old legacy policies that are simply unsuitable for modern society, and start fresh with a technology neutral approach that allows all players to compete evenly.

As new technologies arrive and evolve traditional market sectors, any Communications Act framework will need to exist to allow consumers and businesses to adapt according to their needs, not dictated by inflexible laws. As technology transforms health care, for example, doctors and patients need to be able to align technology use with their preferred outcomes. The current silos are inadequate for anticipating future developments in areas like health care, and any future law must allow for natural innovation and in these areas on a technology neutral basis.

With the growth of mobile broadband providing a key outlet for linking the Latino community to the larger technology universe, Congress must take steps to guarantee underserved groups have affordable access to the rest of this marketplace and are able to develop new businesses through these technologies. The best way to ensure that this happens is through a modern legal framework that creates the most competitive environment possible. By removing silos and allowing all players to compete on the same level, Latinos can join the rest of America in enjoying the rich fruits of a dynamic, competitive communications marketplace.

Sincerely yours,

A solid black rectangular box used to redact the signature of Jose Marquez.

Jose Marquez President and CEO

Jonathan Liebanau, PhD  
Silvia Elaluf-Calderwood, PhD  
Department of Management  
London School of Economics and Political Science  
Houghton Street  
London WC2A 2AE  
United Kingdom

June 11, 2014

The Honorable Greg Walden and Fred Upton  
United States House of Representatives  
730 12th Street NW  
Washington, DC 20005

Re: Communications Act Update

Dear Congressmen Walden and Upton:

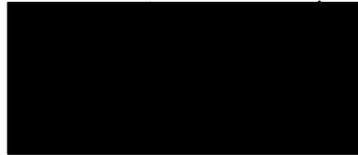
Per your request for additional comment with regard to competition policy within the context of update America's Communications Act, we would like to bring to your attention our new research which is relevant to your undertaking. We represent the LSE Network Economy Forum and LSE Tech, the group for internet and communications economics, policy and strategy at the London School of Economics and Political Science. Founded in 2009, our team studies the internet and telecommunications industry, software production and applications, especially data handling, cloud computing, and mobile computing, as well as Internet architectures and networks.

An abstract of our recent paper "Convergence in the Digital Economy; An IO Analysis of the Effects of Changing Internet Architecture on Business" follows. With regard to the Communications Act, here are a few of the insights from our research as relevant to your inquiry.

- The structure of the Communications Act from 1934 with an emphasis on network and regulatory silos is obsolete for today's converged communications landscape and modular business models.
- It is necessary to redefine the scope of the communications industry and break away from common categories of digital business that were determined by public policy, regulation and engineering approaches focusing on the layered model of the internet.
- Traditional perspectives of two-sided markets comprising communications providers in the middle with content providers on one side and end users on the other are being replaced by modular business models to facilitate network investment and content delivery.

The model of content providers passively accessing transport networks is giving way to a proactive approaches in which content providers develop individualized solutions and relationships for advanced, dynamic content delivery and competitive differentiation.

As competition in the internet and communication industry is highly intricate and dynamic, it is wise to retire the outdated framework in favor of a general competition regime which will apply equally to all technologies, companies networks, and business models. A general framework is not only more appropriate for today's dynamic environment, but also more "future-proof" for continued innovation and development.



Jonathan Liebanau, PhD  
Silvia Elaluf-Calderwood, PhD

**Abstract of "Convergence in the Digital Economy; An IO Analysis of the Effects of Changing Internet Architecture on Business"**

In this paper we use a novel input-output (IO) model to show changes in market power that indicate the character of convergence in the digital economy. We show how changing business strategies, including shifts in investment practices, accommodate modular approaches to business by realigning relationships between content and carriage. We assess the ways in which indicative U.S. and European network operators invest in content related businesses such as CDN and cloud services, and how content firms accommodate and encroach upon infrastructure business practices.

Business practices in the digital economy have been strongly affected by recent changes in the structure and dynamics of the internet that facilitate more modular business models. This forces us to redefine the scope of the industry and break away from common categories of digital business that were determined by public policy, regulation and engineering approaches focusing on the layered model of the internet. By breaking away from assumptions about how "telecoms/transport" stands in contrast to "content/functionality" we can have a better picture of both value added and of competitive strategies. Recent court rulings, such as that of the D.C. Circuit Court in Verizon vs. FCC and the decision by France's ARCEP in Cogent vs. France Telecom illustrate the significance of these new business practices.

Strategic decisions in the digital economy are increasingly based on tangible investments in converged facility to deliver network functionalities and content. The character of this dynamic is best represented by some aspects of modularity theory, which captures the interrelationships among business practices and the architectures of digital networks. We present a model that formalizes an element of

that dynamic by capturing the relationship between the extent of commitment by key firms to network operations and content delivery. This contrasts with the normal two-sided market approaches because it accounts for a myriad of interconnecting and semi-autonomous commercial functions that adjust to new business models as the structure of the internet and the dynamics of the digital economy shifts.

Hence, we assess the extent of network engagement for each company by judging the proportion of investment in each element, the proportion of revenue generated from different parts of the business, and the strategic direction the firm is taking. We show the vectors that describe the move towards convergence over the period 2008-2013 and relate these movements to patterns of investment in networks. Our findings reveal the significance of the shift in the digital economy that occurs as content providers invest in digital traffic transport and engage in new institutional arrangements with content delivery networks, internet exchanges, and customer access technologies.

The theory considers an IO model to analyze strategic behaviors by content and carriage firms carriage firms and what the impacts are on investments by key players. This model presents comparative static predictions that are tested with an empirical model using investment data drawn from the annual reports of firms from six countries in infrastructure, content and digital services. Early indications are that this approach both captures recent convergence trends and indicates trajectories of those trends. We also believe that we can come to a better understanding of the relationship between internet policy and formal IO approaches to competition in the digital economy.