U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON ENERGY AND COMMERCE

October 23, 2015

TO: Members, Subcommittee on Communications and Technology

FROM: Committee Majority Staff

RE: Hearing entitled "Common Carrier Regulation of the Internet: Investment Impacts"

I. INTRODUCTION

The Subcommittee on Communications and Technology will hold a hearing Tuesday, October 27, 2015, at 10:00 a.m. in 2123 Rayburn House Office Building on "Common Carrier Regulation of the Internet: Investment Impacts."

II. WITNESSES

One panel of witnesses will testify:

- Nicholas Economides, Professor of Economics, Stern School of Business, New York University;
- Frank Louthan, Managing Director- Equity Research, Raymond James Financial;
- Michael Mandel, Chief Economic Strategist, Progressive Policy Institute; and
- Robert Shapiro, Co-Founder and Chairman, Sonecon LLC.

III. BACKGROUND

Though the history of net neutrality traces back many years, current debate largely stems from the Federal Communication Commission's (FCC) 2010 Order, which relied on section 706 of the Telecommunications Act of 1996 as a basis of statutory authority for implementing rules.[1] The 2010 Order imposed transparency requirements for providers to disclose traffic management practices, and banned blocking and discrimination of network traffic, subject to reasonable network management.[2]

The rules were challenged in court on the grounds that the FCC lacked statutory authority, that the decision to implement the rules was arbitrary and capricious, and that the rules

[1] *Preserving the Open Internet*, GN Docket No. 09-191, WC Docket No. 07-52, Report and Order, 25 FCC Rcd 17905, 17910, para. 13 (2010), *aff'd in part, vacated and remanded in part sub nom*. Verizon v. FCC, 740 F.3d 623 (D.C. Cir. 2014).
[2] *Id*.

were in violation of laws prohibiting the FCC from treating broadband providers as common carriers.[3] In January 2014, the D.C. Circuit upheld the Commission's rule requiring broadband providers to disclose network management practices, but struck down the rules banning blocking and unreasonable discrimination.[4] The Court found that the FCC had demonstrated its authority under section 706, but that the rules as adopted were essentially common carrier regulations, which conflicted with prior Commission decisions classifying broadband as a non-common carriage "information service."[5]

Following the Court's decision, the FCC launched another proceeding on how to implement net neutrality rules that comport with the *Verizon* decision. A May 2014 Notice of Proposed Rulemaking sought comment on the various options for legal authority for implementing rules.[6] In November 2014, President Barack Obama called on the FCC to enact rules that precluded blocking and throttling, increased transparency, and banned paid prioritization. The President also called for mobile broadband service to be regulated, and acknowledged that there should be some exceptions for reasonable network management and specialized services.[7]

On February 26, 2015, the FCC adopted an order reclassifying wired and wireless broadband Internet access service as telecommunication services, and therefore subject to the agency's Title II regulatory authority.[8] The Order also restored the rules set forth in 2010 and added additional prohibitions, including a more specific ban on throttling of traffic, and a "general conduct standard" designed to give the FCC the authority to address *post hoc* any behaviors not anticipated by the bright-line rules that it deems unsavory.[9]

IV. DISCUSSION

The technology and communications sector in this country has long led in investment and capital expenditures, accounting for one-sixth of the nation's economy.[10] From 1996 to 2014, the broadband industry spent $1.4 trillion in capital investments.[11] United States broadband providers invested $78 billion in 2014 alone, a $3 billion increase over figures from the previous year.[12] When considered on a per household level, this amount of investment is approximately

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[3] *Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014).
[4] *Id*.
[5] *Id*. at 649-59.
[6] Protecting and Promoting an Open Internet, GN Docket No. 14-28, Notice of Proposed Rulemaking, 29 FCC Rcd. 5561 (2014).
[7] "Net Neutrality: President Obama's Plan for an Open Internet" available at http://www.whitehouse.gov/net-neutrality.
[8] Protecting and Promoting the Open Internet, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd 5601 (2015) ("2015 Open Internet Order").
[9] *Id*. at para. 14-35.
[10] Statement of Commissioner Jessica Rosenworcel, Federal Communications Commission, Before the United States Senate Committee on Commerce, Science, and Transportation, "Oversight of the Federal Communications Commission," March 18, 2015, available at https://apps.fcc.gov/edocs_public/attachmatch/DOC-332599A1.pdf.
[11] Patrick Brogan, *Surge of Broadband Investment Threatened by Utility Regulation*, USTelecom, July 7, 2015.
[12] *Id.*

double that of Europe.[13] Light-touch regulation has proved a successful model for fostering broadband deployment—broadband access expanded from 380,000 connections in 2005 to more than 290 million connections in 2013.[14] At the same time as access and speeds are improving, prices for broadband service are decreasing—down approximately 40 percent from 2002 to 2013.[15]

However, the FCC's decision to reclassify both fixed and mobile broadband Internet access services as Title II telecommunication services threatens the robust and growing investment in this sector. This negative impact on investment by service providers was one of the major concerns expressed by commenters regarding a potential reclassification,[16] and sparked a great deal of apprehension for the investment community.[17] The utility-style regulatory scheme that accompanies Title II classification creates a much less favorable environment for investment, and influences the business and development decisions of telecommunications providers.[18] These concerns were not anecdotal or based on conjecture; rather, history has demonstrated that periods of lighter regulation have resulted in a higher rate of new communications services.[19] One analysis concluded that during a period of lighter FCC regulation, the number of services created was 60-99 percent higher than the model predicted would have occurred under stricter regulation.[20] When comparing the expenditures from 1996 to 2008 of lightly regulated cable service providers with those of wireline telecommunications providers that are regulated under Title II, cable expenditures increased at a compound annual growth rate (CAGR) of 7.5 percent, while telecom expenditures increased at a CAGR of only 3.2 percent.[21]

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[13] Anna Maria Kovacs, *Regulation in Financial Translation: Investment Implications of the FCC's Open Internet Proceeding*, October 2014.
[14] Brief for Georgetown Center for Business and Public Policy et al. as Amici Curiae Supporting Petitioner at 4, United States Telecom Association, et al. v. Federal Communications Commission and United States of America, No. 15-1063 (2015).
[15] *Id.* at 5.
[16] See Dissenting Statement of Commissioner Pai. 2015 Open Internet Order at 327, citing e.g., ACA Comments at 60–66; Alcatel-Lucent Comments at 2; AT&T Comments at 51–53; CenturyLink Comments at 5–6; Charter Comments at 13, 15–16; Cisco Comments at 27; Comcast Comments at 46–50; Cox Comments at 34–36; CTIA Comments at 46–48; Ericsson Comments at 12; Frontier Comments at 2–4; Qualcomm Comments at 4–7; Verizon Comments at 57; Letter from Matthew A. Brill, Counsel for National Cable & Telecommunications Association, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 14-28, 10-127, at 3–5 (Dec. 23, 2014); Letter from Patrick S. Brogan, USTelecom to Marlene Dortch, Secretary, FCC, GN Docket No. 14- 28 (Nov. 19, 2014) (attaching Kevin A. Hassett & Robert J. Shapiro, Sonecon, The Impact of Title II Regulation of Internet Providers on Their Capital Investment (Nov. 2014)); Letter from Laurence Brett Glass, d/b/a LARIAT to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1 (Jan. 9, 2015); Letter from John Mayo, Exec. Director, Georgetown Center for Business and Public Policy to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 (Jan. 16, 2015) (attaching Anna-Maria Kovacs, Regulatory Uncertainty: The FCC's Open Internet Docket (Jan. 2015)); Martin H. Thelle & Dr. Bruno Basalisco, Copenhagen Economics, Europe Can Catch Up With the US: A Contrast of Two Contrary Broadband Models (June 2013), available at http://bit.ly/1zJritJ.
[17] Kovacs at 5.
[18] Hal Singer, *Three Ways the FCC's Open Internet Order Will Harm Innovation*, Progressive Policy Institute, May 2015.
[19] James E. Prieger, *Regulation, Innovation, and the Introduction of New Telecommunications Services*, 84(4) Review of Economics and Statistics 704-15 (2002).
[20] *Id*.
[21] Singer May 2015 at 10.

The concerns about uncertainty expressed prior to the FCC's decision are reflected in the reduced capital expenditures for ISPs in the first half of 2015, the period in which Title II regulation first appeared likely and then became certain.[22] Both AT&T and Charter Communications' expenditures in the first half of 2015 were down 29 percent compared to the first half of 2014, and Cablevision, Verizon, and CenturyLink all reduced capital expenditures in that same time period when compared to just one year earlier.[23] While the immediate impact of decreased investment is that U.S. broadband consumers must wait for the latest broadband technologies, lower capital expenditures reverberates much further into our national economy. Research indicates that every million-dollar increase in broadband capital expenditure in a year generates almost 20 jobs.[24] The lost investment as a result of Title II uncertainty means lost jobs for the U.S. economy.

These declines are thought to be just the beginning; studies indicate that Title II regulations are likely to have a long-term negative impact by slowing investment by providers who are concerned with increased regulation and uncertainty in the rules governing their services.[25] One study estimates that the decrease in investment under Title II regulation could range anywhere from 12.8 percent to 20.8 percent over a five year period.[26] Taken at 2014 investment levels, even the low estimate for impact would cost the U.S. economy nearly $9.5 billion of investment annually and nearly 190,000 jobs.

By observing other countries that have embraced a more heavily regulated approach to telecommunications service, it is clear that the level of investment, and as a result, the level of service, was below par when compared to the United States. Broadband deployment data illustrates the disparity: 82 percent of Americans have access to 25 Mbps broadband speeds, compared to only 54 percent of Europeans.[27] These numbers can be partially explained by the dramatically different investment figures in the two regions, with wireline broadband providers investing $562 per household, compared to just $244 per household invested by European providers.[28] This gap extends beyond wired connections. Average mobile speeds in the United States are almost 30 percent higher than speeds in Western Europe.[29]

The uncertainty created by the FCC's decision beyond the reclassification itself also poses a serious risk to investment. With pending litigation likely to last for multiple years, the legal impermanence of forbearance, and a "general conduct standard" that threatens to undo

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[22] Early reports out of the Commission, as well as the President's statement urging full Title II, indicated to many companies that Title II was the likely route the FCC would pursue, even before the early February release outlining the Chairman's plans.
[23] Hal Singer, *Does the Tumble in Broadband Investment Spell Doom for the FCC's Open Internet Order?,* Forbes, August 25, 2015.
[24] See Singer August 2015.
[25] See Singer May 2015, Kovacs, Brief of Georgetown Center.
[26] Kevin A. Hassett and Robert J. Shapiro, *The Impact of Title II Regulation of Internet Providers on Their Capital Investments*, November 2014.
[27] Pai dissent at 327.
[28] *Id*.
[29] *Id*.

service and technological innovations, the industry lacks the assurances needed to formulate long-term investment strategies.[30] The Commission acknowledges "that vague or unclear regulatory requirements could stymie rather than encourage innovation,"[31] and though the Order claims that the approach taken by the Commission avoids this uncertainty, industry and economists have expressed great doubt. The "overhang of rules to come" is likely to cause many businesses to proceed with caution when making research, development, and investment decisions.[32] In addition, it may also provide a disincentive to creative product and service offerings, which ultimately harms consumers.

At the time the FCC adopted the Order, they submitted an estimate to the Office of Management and Budget pursuant to the Congressional Review Act, predicting a $100 million increase to the economy based on edge providers improved access to broadband infrastructure.[33] The Commission based this impact estimate on the concept of the virtuous cycle, asserting that an open Internet under Title II would foster innovation, driving increased consumer demand, and in turn fuel broadband investment.[34] However, this assertion does not account for the fact that if regulation causes broadband providers to invest less and network quality does not improve at the same rate as demand, the virtuous cycle is stalled. Domestic Internet traffic is expected to triple between 2014 and 2019,[35] which will require network infrastructure capable of bearing that load. Additionally, even if the economic benefit the FCC claimed would occur for edge providers comes to be, it would be negated by a simultaneous decrease in annual ISP capital expenditures of just 0.13 percent.[36]

The redirection of industry resources away from networks and toward regulatory compliance and risk management is a tangential economic effect of increased regulation.[37] The capital that could otherwise be devoted to research and development, deploying new services, or improving existing services is diverted instead to compensating lawyers and regulatory experts.[38] In the Commission's required Paperwork Reduction Act analysis, they estimated that the total annual cost for all respondents to comply with the new rules would be $640,000.[39] However, using their estimate for annual burden hours of 92,133, and their estimated 3,188 respondents, the average annual cost per provider will be $200.75, which works out to an average hourly wage

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[30] Kovacs at 24.
[31] Order at ¶138.
[32] Pai dissent at 238
[33] Congressional Review Act Abstract, Protecting and Promoting the Open Internet, GN Docket No. 14-28, FCC 15-24 (2015).
[34] *Id*.
[35] Cisco, VNI Highlights, 2014.
[36] See Singer August 2015 (0.13 percent based on the 2014 ISP capex of $78 billion; 0.13 percent decrease of that investment would total $101 million).
[37] Kevin A. Hassett and Robert J. Shapiro, *Regulation and Investment, a Note on Policy Evaluation Uncertainty, With an Application to FCC Title II Regulation of the Internet,* at p.15, July 2015.
[38] *Id.*
[39] Protecting and Promoting the Open Internet, Report and Order on Remand, 30 FCC Rcd 5601 (2015) ("2015 Open Internet Order"); Notice of Public Information Collection(s) Being Reviewed by the Federal Communications Commission, 80 Fed. Reg. 29000 (May 20, 2015) ("PRA Notice").

of $6.95.[40] Given that this number is below the U.S. Federal minimum wage,[41] it seems unlikely that this estimate is accurate. Assuming that the FCC's estimates for time needed and the number of reporting entities are accurate, based on one measure of the median hourly rate for a regulatory and compliance partner in a law firm, the cost of compliance is as much as $52 million annually.[42] And based on a conservative estimate of the cost using paralegals alone, the cost of compliance would be $13.8 million per year.[43] Additionally, this compliance cost does not account for the additional potential costs of consulting the Commission for an advisory opinion, as they suggest, when offering new services,[44] or even more costly, litigation.

The Commission's failure to perform a thorough cost-benefit analysis, something required by President Obama in a Memorandum to executive agencies and urged for independent agencies,[45] has led to a regulatory scheme that will result in depressed or flat-lined investment. There is empirical evidence, economic modeling, and real world results that demonstrate the current and future impacts of Title II on investment by ISPs. There is also speculation that Title II regulation, and the accompanying depressed investment, could extend to edge providers who are now potentially subject to the rules.[46] Though much of the conversation is focused on the fact that ISPs will be deterred from investing, it is ultimately consumers who will be most harmed through a reduction in innovative products or service offerings, novel pricing plans, and improved and expanded networks.[47] Professor John Mayo argues that "such extensions of the traditional regulatory apparatus to innovative services that blend voice, data and video features would create the profound risk of stifling the rich innovation that has become the hallmark of the high-tech sector."[48]

V. STAFF CONTACTS

If you have any questions regarding this hearing, please contact David Redl or Kelsey Guyselman of the Committee staff at (202) 225-2927.

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[40] See Comments of CTIA- The Wireless Association on Proposed Information Collection Requirements, p. 5, available at http://www.ctia.org/docs/default-source/fcc-filings/150720_ctia_open_internet_pra_comments.pdf?sfvrsn=2. (Calculates that $640,000 (Total annual cost)/3,188 (number of respondents)=$200.75/28.9 hours (average time of response per respondent)= $6.95/hour).
[41] The Fair Labor Standards Act of 1938, Sec. 206 (establishes federal minimum wage of $7.25/hour).
[42] Enterprise Legal Management Trends Report: 2015 Mid-Year Edition: Update on the Six Key Metrics, 14 (Lexis Nexis)(2015)(median hourly rate for partners in the Regulatory and Compliance practice area is $563, multiplied by the FCC's estimated 92,133 burden hours).
[43] *Id.* at 6 (median hourly rate for paralegals in the Regulatory and Compliance practice area is approximately $150, multiplied by the FCC's estimated 92,133 burden hours).
[44] See Open Internet Order, e.g. para. 185, 219, 229.
[45] Exec. Order No. 13,579, 76 Fed. Reg. 41587 (July 14, 2011).
[46] Kovacs at 25.
[47] *Id.*
[48] *Id.*