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

In the Matter of	)	
	)	WC Docket No. 17-108
Restoring Internet Freedom	)	

REPLY TO COMMENTS OF

THE FREE STATE FOUNDATION

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I. Summary and Introduction

These reply comments are filed in response to pro-regulatory/pro-Title II comments opposed to the Federal Communications Commission's proposal to reclassify broadband Internet access service as a Title I information service, which, at most, would be lightly regulated by the Commission. In this reply, we demonstrate once again, despite claims to the contrary, that the FCC's current Title II public utility-like regulatory regime: (1) dampens broadband investment and innovation; (2) is inconsistent with the Communications Act's text and structure; (3) is not necessary or proper in light of the dynamism and competitiveness of the Internet services marketplace; and (4) will not protect privacy and provide other consumer protections as well as the FTC can, with its superior institutional capabilities.

A primary emphasis of these reply comments is on the increasingly convincing evidence that the uncertainty created by public utility regulation adopted in the FCC's 2015 *Title II Order* has had a negative effect on broadband investment. While the *Title II*

[1] These reply comments express the views of Randolph J. May, President of the Free State Foundation, and Seth L. Cooper, Senior Fellow, Theodore R. Bolema, Senior Fellow, and Michael J. Horney, Research Associate. The views expressed do not necessarily represent the views of others associated with the Free State Foundation. The Free State Foundation is a nonpartisan, non-profit free market-oriented think tank.

Order has been in effect only since 2015, evidence is emerging that the order has negatively affected broadband capital investment. Research by the Free State Foundation's Michael Horney indicates that the *Title II Order* has led to a decrease of $5.6 billion in broadband capital investment just during 2015 and 2016. Other analysts have similarly estimated billions in foregone investment resulting from the *Title II Order*, relative to a relevant identifiable baseline. Of course, this investment loss is not just a matter of scholarly or theoretical interest. It has real world impacts – adversely affecting the revival of the nation's economy and job creation.

The major responses from pro-regulatory/pro-Title II commenters have little or no evidence to support their dismissals of the *Title II Order*'s negative investment impact. To the extent they try at all, they rely on problematic analyses. For example, comments by INCOMPAS and by Vimeo provide no meaningful evidence in challenging capital investment declines since 2015. INCOMPAS appears to assert a relevant baseline for analysis of zero investment – an amount that no one plausibly can argue would have occurred but for the *Title II Order*. Vimeo relies on cumulative investment figures by cable companies from 1996 to 2016, which include non-broadband investment as well as investment spanning nineteen years before the *Title II Order*. And Vimeo offers no baseline indicating what capital investment would have been but for the *Title II Order*.

Pro-regulatory/pro-Title II commenters Netflix, the Internet Association, and the Open Technology Institute all rely on a short paper by Christopher Hooton, Chief Economist for the Internet Association. That paper falls far short of being comprehensive and fails to produce any reliable results. Hooton is dismissive of analyses finding decreases in broadband capital investment, but he provides little substantive critique.

Hooton's criticism of the analysis by the Free State Foundation's Michael Horney misleadingly – or perhaps mistakenly and just carelessly – describes it as "a chart with no author, no data sources, no statistical analysis." In fact, as shown in the body of these comments**,** the analysis includes Horney's name, data sources, and a detailed description of how he did his analysis. His May 5, 2017, blog update uses the same methodology as the original March 17, 2017, analysis and incorporates newer investment data.

The claim made by Free Press that Title II regulation has not reduced broadband investment draws on a paper by S. Derek Turner. In that paper, which is also cited in other pro-regulatory comments, Turner argues that broadband capital investment increased by 5.3% from 2013-2014 to 2015-2016. Pro-regulatory commenters assert that financial filings of statements to investors by Internet service provider (ISP) executives show a lack of impact by the *Title II Order* on their future investment. However, USTelecom's Jonathan Spalter has highlighted some of the statements by broadband ISPs to investors that expressed concerns about the risk and uncertainty created by the *Title II Order*, and in which they point out how the order may diminish investments in new products or network expansions.

In fact, the Free Press data on broadband investment is consistent with studies showing a decline in investment since 2015. Hal Singer of Economists Inc., points out that the increase Free Press asserts misleadingly includes non-broadband investments. George Ford of the Phoenix Center found that Free Press' data actually shows a decline in capital investment of $3.7 to $5.1 billion. So, declining investment is a major reason why the Commission's decision to impose Title II public utility regulation on broadband Internet access services needs to be promptly reversed.

Moreover, as we demonstrated in our initial comments, the information service status of broadband Internet access service is a straightforward matter of statutory definition. Broadband Internet access service fits within Title I's definition of an information service, because it involves "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications." Broadband ISPs offer each of these capabilities – especially information processing.

Sections 230 and 231 of the Communications Act also plainly identify Internet access services as types of information services. Section 230(f)(2) describes an "information service" to include "a service or system that provides access to the Internet." And Section 231(e)(4) forecloses defining Internet access services as telecommunications services, providing that "a service that enables users to access content, information, electronic mail, or other services offered over the Internet…does not include telecommunications services."

Pro-regulatory commenters deliberately mislabel broadband ISPs as "mere conduits" for end users to access third-party online content. In an effort to support their argument for Title II regulation, it appears that pro-regulatory commenters worked backward from their preferences about how broadband networks should operate in order to avoid confronting the reality of how they do operate. Even if broadband Internet access services offered only so-called "gateway" functionalities for accessing third-party content on the Internet, they would meet the statutory definition of an information service. In any event, information processing functions lie at the core of what broadband ISPs offer end users. In reality, such services are integrated services that offer end users capabilities to

perform all of the functionalities delineated in the Title I definition, typically deep at the network level. Further, advancements in broadband network technologies since 1996 bolster Title I classification, not Title II classification. As described in comments by Richard Bennett, with High Tech Forum, for example, DNS and routing services offered by broadband ISPs are even more information-processing intensive than in years prior.

Some pro-regulatory commenters acknowledge that broadband ISPs perform functions beyond mere transmission yet claim those functions fall under the telecommunications network management exception. But broadband Internet access service functionalities are far more wide-ranging than those used in connection with telephone or basic telecommunications services. And to the extent broadband ISPs procure third-party supplied functionalities, ISPs bundle them with their own information-related functionalities as part of the integrated offerings made available to end users.

Although some pro-regulatory/Title II comments claim lack of competition in the broadband market supports Title II regulation, there is strong evidence of consumer choice. According to the *Internet Access Services Report: Status as of June 30, 2016*, even then 42% of census blocks with housing units were served by two or more wireline broadband ISPs offering speeds of 25 Mbps or higher. And 79% of census blocks with housing units were served by three or more such ISPs offering speeds of 10 Mbps or higher.

Furthermore, pro-regulatory commenters completely exclude mobile broadband ISPs from their market analyses. Yet mobile represents nearly 72% of all broadband connections. According to the *Nineteenth Wireless Competition Report* (2016), as of

December 2015, 95.9% of the U.S. population had access to three or more 4G LTE mobile ISPs and 89.1% had access to four or more mobile ISPs. And a study by the National Telecommunications and Information Administration (NTIA) found that consumers across income levels substitute mobile broadband for wireline broadband. For example, 29% of low-income consumers, 18% of middle-income consumers, and 15% of high-income consumers are mobile-only broadband users.

Dynamic competition in the broadband Internet service market, which includes mobile broadband ISP-offered switching incentives, such as early termination fee buyouts and trends toward no-contract plans, eliminates almost any prospect of "gatekeeper power" that pro-regulatory commenters imagine. By adopting the *Title II Order* and its vague general conduct standard for what broadband ISP practices are permissible, the FCC misguidedly established itself as broadband innovation's gatekeeper.

In opposing the Notice's proposal to return jurisdiction over broadband privacy to the Federal Trade Commission, pro-regulatory commenters ignore the superior institutional capability of the FTC and its track record of protecting privacy for decades prior to the *Title II Order*. FTC institutional advantages include having an established Division of Privacy and Identity Protection with experience in hundreds of privacy cases, including actions against broadband ISPs and other major Internet enterprises. Witness, for example, the FTC's recent action this month against market-dominant Uber, sanctioning the company for the inadequacy of its privacy protections. Pro-regulatory commenters also fail to appreciate the deterrence benefits achieved from *ex post* privacy regulation based on case-by-case enforcement.

Reclassifying broadband Internet access services under Title I would enable the FTC to address potential concerns posed by paid prioritization and other vertical arrangements involving broadband ISPs under antitrust's "rule of reason." An August 16, 2017, Free State Foundation *Perspectives* by Professor Joshua Wright, a member of the Free State Foundation Board of Academic Advisors and former FTC Commissioner, explained that, because the economics literature recognizes that such vertical arrangements are typically precompetitive, "rule of reason analysis would not result in a categorical ban on vertical agreements" such as the one imposed in the *Title II Order*. Through application of the rule of reason's case-by-case approach, Professor Wright explained that FTC enforcement action would result "if careful economic analysis concluded there are anticompetitive effects greater than any procompetitive effects or efficiencies."

Pro-regulatory commenters raise no persuasive objections to the FCC conducting a cost-benefit analysis. Comments by INCOMPAS do little more than argue that any cost-benefit analysis the FCC conducts will fall short. Free Press makes a baseless claim that the Notice's cost-benefit analysis proposal gives no guidance about the Commission's performance of the analysis. But courts have looked favorably on cost-benefit analyses as an analytical tool that can assist in decisionmaking. Federal agencies have had rules reversed for not conducting economic analyses or considering costs.

Furthermore, the Commission should reaffirm that broadband Internet access services are jurisdictionally interstate, thereby protecting against potential new regulatory barriers or uncertainties erected by state or local governments. The failure to do so may

well inhibit innovation and investment in network upgrades and deployments to unserved areas.

Above all, given the record evidence, there is no doubt that the Commission should return to the Title I information services classification for broadband Internet access services that allowed Internet investment and innovation to flourish under a light-touch regulatory regime.

II. Pro-Regulatory Comments Wrongly Dismiss the *Title II Order*'s Negative Impact on Broadband Network Investment

A. Evidence Indicates Title II Order Harms Broadband Network Investment

While the *Title II Order* only has been in effect since 2015, evidence already is emerging that the order had a negative effect on broadband capital investment. As the Notice correctly pointed out,[2] evaluating the economic impact of the order depends on identifying a relevant baseline. At least three analyses show a decline in investment, relative to a relevant baseline that is identified by their authors.

In a recent address, Chairman Pai cited research by the Free State Foundation's Michael Horney estimating that the *Title II Order* "has already cost our country $5.1 billion in broadband capital investment."[3] Horney used as his baseline a trend line generated from actual capital investment from 2003 to 2014. When new data for actual investment in 2015 became available, Horney revised his estimate using the same methodology to project a decrease of $5.6 billion in broadband investment over 2015 and

[2] Notice, at ¶ 107.
[3] Ajit Pai, "Remarks of Federal Communications Commission Chairman Ajit Pai at the Newseum: The Future of Internet Freedom," Federal Communications Commission (April 26, 2017), available at http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0426/DOC-344590A1.pdf.

2016.[4] His estimate is similar to the estimate by Hal Singer of Economists Inc., who finds a drop in broadband investment of $3.6 billion in 2016 alone, or 5.6%, relative to a baseline of 2014 investment.[5]

George Ford of the Phoenix Center traces lost investment back to December 2010, when then-Chairman Julius Genachowski proposed regulations that, as the D.C. Circuit later concluded, were Title II-like common carrier mandates.[6] Ford argues that broadband investment already had started dropping by 2011 in anticipation of the *Title II Order*. Ford finds that "over the interval 2011 to 2015, another $150-$200 billion in additional investment would have been made 'but for' Title II reclassification."[7]

The major responses from pro-regulatory commenters that question whether the *Title II Order* had a negative effect on broadband infrastructure investment fall into three main categories: comments that dismiss the concern with little or no support, comments that rely on a paper by Christopher Hooton of the Internet Association, and comments that rely on Free Press' claims and the virtuous cycle theory from the *Title II Order*.

B. *Pro-Regulatory Commenters Do Not Provide Meaningful Evidence to Rebut Analyses Indicating Recent Declines in Broadband Investment*

[4] Michael Horney, "Broadband Investment Slowed by $5.6 Billion Since Open Internet Order" *Free State Foundation Blog* (May 5, 2017), available at http://freestatefoundation.blogspot.com/2017/05/broadband-investment-slowed-by-56.html.
[5] Hal Singer, "2016 Broadband Capex Survey: Tracking Investment in the Title II Era," March 1, 2017, available at https://haljsinger.wordpress.com/2017/03/01/2016-broadband-capex-survey-tracking-investment-in-the-title-ii-era/.
[6] FCC, Preserving the Open Internet; Broadband Industry Practices, GN Docket No. 09-191, WC Docket No. 07-52, Report and Order ("*2010 Open Internet Order*") (2010); reversed and remanded, *Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014).
[7] George Ford, "Net Neutrality, Reclassification and Investment: A Counterfactual Analysis Net Neutrality, Reclassification and Investment: A Further Analysis, Phoenix Center for Advanced Legal and Economic Public Policy Studies (April 25, 2017), available at http://www.phoenix-center.org/perspectives/Perspective17-02Final.pdf.

Comments by INCOMPAS and by Vimeo provide no meaningful evidence in challenging the decline in capital investment since 2015. The comments of INCOMPAS are the more extreme of the two, and baldly assert:

> There is no support for the view—none—that the use of Title II is the cause of any change in investment by broadband companies, and in fact, all the distorted reasoning in the world cannot hide the fact that these same broadband companies are building networks, spending money to buy (or eye) other companies, and investing in 5G deployment.[8]

INCOMPAS offers no supporting evidence for its assertion that investment by broadband companies is unchanged. INCOMPAS is correct that broadband companies still are building networks and investing in 5G deployment, but they are doing so at a slower rate than before 2015. Moreover, INCOMPAS appears to be asserting that the relevant baseline is zero investment. That is a baseline that INCOMPAS plausibly cannot argue would have occurred but for the *Title II Order*.

In its comments, Vimeo also asserts that the *Title II Order* did not decrease investment. However, Vimeo's only evidence that investment has not been harmed is to cite a cumulative cable industry investment chart on the NCTA website:

> The Commission suggests that Title II somehow threatens broadband investment. The facts belie this claim. Investment in broadband infrastructure has continued to increase since the 2015 Order. NCTA, the cable industry's trade association, proudly states that "cable has invested over $250 billion in capital infrastructure" over the past twenty years along with a chart showing the cumulative investment. . . . This does not look like an industry retrenching over heavy-handed regulation. (citations and chart omitted)[9]

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[8] Comments of INCOMPAS, WC Docket No. 17-108 (July 17, 2017), at 6, available at http://www.incompas.org/files/INCOMPAS--RIF%20Comments%20WC%20Docket%20No_%2017-108%20(July%2017,%202017).pdf.

[9] Comments of Vimeo, Inc., WC Docket No. 17-108 (July 17, 2017), at 31, available at: https://ecfsapi.fcc.gov/file/10717185758722/2017%20NPRM%20Vimeo%20Opening%20Comments%207-17-17%20FINAL.pdf.

Vimeo's citation is misleading, however, because it shows cumulative investment by cable companies from 1996 to 2016. Some of that investment is not broadband investment. Nineteen of the 21 years in that time period were before the *Title II Order* was adopted. While it can be argued that any effect on capital investment would show up before 2015 in anticipation of the *Title II Order*, the Notice correctly proposes that the effect on investment must be calculated relative to a baseline. And Vimeo offers no such baseline indicating what capital investment would have been if not for the *Title II Order*.

C. *Pro-Regulatory Comments Rely on a Paper by the Internet Association's Christopher Hooton That Contains Analytical Deficiencies*

Pro-regulatory commenters Netflix, the Internet Association, and the Open Technology Institute all make similar claims that primarily are supported by a short paper by Christopher Hooton, Chief Economist for the Internet Association. For example, the Internet Association makes the following claim about capital investment:

> There is no reliable evidence that the 2015 Order has reduced ISPs' investments in broadband infrastructure. Comprehensive economic research by IA has found that ISP investment is up over time, and shows no decline as a result of the Commission's 2015 Order promulgating net neutrality rules and classifying BIAS as a common carrier service under Title II of the Communications Act. Multiple, independent metrics — from actual capital expenditure numbers, to capacity, to prices — demonstrate that ISP claims of depressed investment don't mesh with reality.[10]

It appears that the Internet Association relies on three sources for this claim – the Free Press data on the increase in capital investment (discussed below), various statements by ISP executives (discussed below), and the Hooton paper.

[10] Comments of Internet Association, WC Docket No. 17-108 (July 17, 2017), at 7, available at: https://ecfsapi.fcc.gov/file/10717274209550/IA%20Net%20Neutrality%20Comments%20Docket%2017-108%20F.pdf.

The Hooton paper[11] is the "[c]omprehensive economic research by IA" referenced above. This paper falls far short of being comprehensive, however, and fails to produce any reliable results. First, Hooton's "demonstrat[ion] that ISP claims of depressed investment don't mesh with reality" is very thin.[12] Hooton devotes a paragraph each on the Horney, Singer, and Ford analyses described above, followed by one paragraph briefly mentioning three other papers by Timothy Brennan,[13] Michelle Connelly, *et.al*.,[14] and Robert Crandall.[15] But what Hooton says about all of them is dismissive while providing little in the way of a substantive critique. Hooton's critique of the analysis by Michael Horney of the Free State Foundation is particularly misleading. He describes it as "a chart with no author, no data sources, no statistical analysis."[16]

The Free State Foundation website does contain the chart identified by Hooton.[17] The actual Free State Foundation analyses of the investment impact of the *Title II Order* are not in this chart, however, but in separate analyses by Horney that included his name, data sources, and a detailed description of how he did his analysis. The current version of

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[11] Christopher Hooton, "An Empirical Investigation of the Impacts of Net Neutrality," submitted as appendix to Comments of the Internet Association, GN Docket 17-208 (filed July 17, 2017), available at https://cdn1.internetassociation.org/wp-content/uploads/2017/07/InternetAssociation_NetNeutrality-Impacts-Investigation.pdf.

[12] Comments of the Internet Association, at 12.

[13] Timothy Brennan, "To Post-Internet Order Broadband Sector: Lessons from the Pre-Open Internet Order Experience," Review of Industrial Organization (2017) at 469.

[14] Michelle Connolly, Clement Lee, and Renhao Tan, "The Digital Divide and Other Economic Considerations for Network Neutrality," Review of Industrial Organization (2017) at 537.

[15] Robert Crandall, "The FCC's Net Neutrality Decision and Stock Prices," Review of Industrial Organization (2017) at 555.

[16] Hooton, "An Empirical Investigation of the Impacts of Net Neutrality," at 6.

[17] Free State Foundation, "Investment Impact of Title II Public Utility Regulation" *Free State Foundation Blog* (March 17, 2017), available at: http://freestatefoundation.blogspot.com/2017/03/investment-impact-of-title-ii-public.html.

Horney's investment analysis is his May 5, 2017, update,[18] using the same methodology as his original analysis but incorporating newly-available investment data.

Hooten then presents a model that is poorly described. He uses U.S. data that starts in 1996 and ends in 2013, 2015 or 2016, depending on the source, as well as OECD data for other countries from 1996 to 2014. And he somehow performs a simulation to produce estimates for additional data through 2020.

Notably, Hooten's dependent variable is "Telecom Infrastructure Investment," which he constructed by adding cable investment from Kagan to broadband investment from USTelecom.[19] Or at least this is what Hooton did for 1996 to 2013 or 2014. But it is not clear about how he generated his figures for future years up to 2020. Hooton describes his analysis as follows:

> Three counterfactuals were used: 1) telecom infrastructure investment volumes per capita – US aggregate versus OECD aggregate (minus the US) from 1996 to 2013 with forecast extensions to 2020; 2) total inland infrastructure investment – disaggregated for every OECD country – for 1995-2014; and 3) total inland investment – using a synthetic control constructed by first removing all countries that have NN or have discussed it in their legislative bodies and then developing weighted averages based on individual country similarities to the United States.[20]

Hooten then finds that his "analysis demonstrates that when properly considered from a variety of angles, there is no evidence of [Net Neutrality] impact – one way or another. The key takeaways from the analysis are that there is no evidence of a decrease in investment in the US."[21] But Hooton is making a large leap from his poorly-described model of *cable plus broadband investment* showing no evidence of decline to there being

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[18] Michael Horney, "Broadband Investment Slowed by $5.6 Billion Since Open Internet Order" *Free State Foundation Blog* (May 5, 2017), available at http://freestatefoundation.blogspot.com/2017/05/broadband-investment-slowed-by-56.html.
[19] Hooton, "An Empirical Investigation of the Impacts of Net Neutrality," at 10.
[20] Hooton, "An Empirical Investigation of the Impacts of Net Neutrality," at 13.
[21] Hooton, "An Empirical Investigation of the Impacts of Net Neutrality," at 14.

no evidence of *broadband* investment decline. Hooton is also making the leap from finding no such evidence in his model to there being no such evidence in any other analysis.

Netflix's assertion about lack of evidence of broadband investment harm appears to be entirely derivative of the Internet Association's. Netflix's claim consists of only one sentence, which cites Hooten's paper and a paper by S. Derek Turner for Free Press (discussed below):

> Not only is there little evidence that investment by broadband providers has been harmed following the 2015 Open Internet Order, research indicates that some providers have increased investment since it took effect.[22]

Note that Netflix mischaracterizes what Hooten found. Netflix asserts that broadband investment is unchanged, but the Hooten paper uses a broader measure of total telecom investment as its dependent variable.

Open Technology Institute makes a similar brief argument that is derivative of the Internet Association analysis. Just as Netflix did, the Open Technology Institute mischaracterizes what Hooten actually found:

> Research from the Internet Association also found that there has been no negative impact on broadband infrastructure investment as a result of the 2015 Order. The Internet Association added they also found no decline in investment in the U.S. compared to other Organization for Economic Co-operation and Development countries (emphasis added).[23]

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[22] Comments of Netflix, Inc., WC Docket No. 17-108 (July 17, 2017), at 3-4, available at https://ecfsapi.fcc.gov/file/107171642618256/Netflix%20NN%20comments%20WC%20Dkt%2007-108%20filed%207.17.17.pdf, citing Christopher Hooton, "An Empirical Investigation of the (Non) Impacts of Net Neutrality" and S. Derek Turner, "It's Working: How the Internet Access and Online Video Markets are Thriving in a Title II World," Free Press (May 2017).

[23] Comments of the Open Technology Institute, WC Docket No. 17-108 (July 17, 2017), at 45, available at: https://ecfsapi.fcc.gov/file/107182839216820/OTI%20NN%20COMMENTS%20JULY%2017%20FINAL%20(1).pdf.

D. Pro-Regulatory Comments Wrongly Rely on Free Press' Claims About Investment and the Virtuous Cycle Theory

The most prominent claim that Title II regulation has not reduced broadband investment has been made by Free Press. Most of Free Press' comments are devoted to claims that capital investment is increasing and challenging the past criticisms others have raised about what Free Press counts as investment. Free Press claims:

> There should be no doubt: the Commission's 2015 Open Internet Order is a smashing success, as measured by its stated goal of preserving and promoting the online ecosystem's "virtuous cycle of investment," and as measured by the Commission's statutory obligations to "encourage the deployment [of] broadband telecommunications capability" and to promote "improved access to broadband service to consumers residing in underserved areas of the United States." Broadband provider company investments, particularly those in core network services, accelerated following the Commission's vote. And much more relevant than the dollars these ISPs spent is this encouraging fact: the transmission capabilities of broadband services offered by carriers large and small increased dramatically in the two years under restored common carriage, with additional improvements continuing at an historic pace.[24]

Free Press draws again on a paper by S. Derek Turner, cited in other pro-regulatory comments, which argues that following the *Title II Order*, broadband capital investment increased by 5.3% from 2013-2014 to 2015-2016.[25]

Much of the Free Press' comments, as well as the paper by Turner, consists of statements by broadband providers in their financial regulatory filings and to their investors. As noted above, the Internet Association comment also lists such statements by broadband providers. Free Press, the Internet Association, and Turner assert that these financial filings demonstrate that broadband ISPs say one thing to regulators in the

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[24] Comments of Free Press, WC Docket No. 17-108 (July 17, 2017), at 86, available at: https://ecfsapi.fcc.gov/file/1071818465092/Free%20Press%20Title%20II%20Comments.pdf.

[25] S. Derek Turner, "It's Working: How the Internet Access and Online Video Markets are Thriving in the Title II Era," Free Press (May 2017), available at: https://www.freepress.net/sites/default/files/resources/internet-access-and-online-videomarkets-are-thriving-in-title-II-era.pdf.

nation's capital about the impact of the *Title II Order* on investment plans and tell an entirely different story to investors. Thus, they claim that these collections of statements from ISP executives show a lack of impact by the *Title II Order* on their future investment.

Plenty of other statements can be found, however, in which ISPs expressed concern to their investors about the investment implications of the *Title II Order*. Jonathan Spalter, USTelecom, performed the same exercise, identifying many different statements by broadband providers to their investors. However, Spalter identified the statements by ISPs to their investors that expressed their concerns about the risk and uncertainty created by the *Title II Order*, specifically including statements in which ISPs point out how the *Title II Order* may diminish investments in new products or network expansions.[26]

Comments by Public Knowledge and Common Cause make the same basic claim about investment as Free Press, citing the Free Press data and statements to investors:

> The NPRM claims that "Internet service providers stated that the increased regulatory burdens of Title II classification would lead to depressed investment," and then cites broadband industry-supported evidence claiming that investment has in fact declined. While the NPRM begrudgingly notes that "[o]ther interested parties have come to different conclusions," it proceeds to uncritically assume that the broadband industry-supported assertions are true. They are not.
>
> However, since the Commission appears to accept industry claims as the definitive source for data on post-Title II investment, the Commission must also take account of other industry statements. For example, Free Press has conducted a study that concludes that broadband capital expenditures have not decreased as a result of Title II. It has also compiled a list of industry statements that back up its findings, where broadband

[26] Jonathan Spalter, "Two Cities, One Message: Title II Creates Uncertainty," USTelecom (August 4, 2017), available at https://www.ustelecom.org/blog/two-cities-one-message-title-ii-creates-uncertainty. *See also* Comments of CenturyLink, at 13-14 (internal cites omitted).

> industry executives unequivocally tell investors that Title II reclassification has not had any effect on their plans.[27]

After sifting through all the overheated rhetoric in Free Press' comments and the Turner paper, it becomes clear that the Free Press data on broadband investment is generally consistent with the findings in studies that show a decline in investment since 2015. Hal Singer points out that the increase Free Press asserts is misleading because it includes some large non-broadband investments, including Sprint's leased handsets and certain AT&T investments by DIRECTV and a Mexican affiliate.[28] George Ford reviewed the Free Press analysis, and found that Free Press' data actually shows a decline in capital investment. Ford concludes that "Free Press' own data, therefore, provides support for the $3.7 to $5.1 billion investment decline cited by Chairman Pai when announcing his intent to review the 2015 Title II Order."[29]

Comments filed by the Information Technology and Innovation Foundation reached the same conclusion:

> Examining both Singer and Free Press's data carefully, and taking minor steps to control for slight variations in the data sets, the differences become clear. Singer, in his analysis, controlled for three of the most obvious external factors that have nothing to do with Title II that should be subtracted from Free Press's figures: (1) the mid-period change in how Sprint treats handsets for accounting purposes, (2) AT&T's investment in Mexico, and (3) AT&T's investment in DirecTV. . . .
>
> Controlling for only those factors—again, a rather rudimentary analysis considering the numerous factors that go into investment decisions—the

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[27] Comments of Public Knowledge and Common Cause, WC Docket No. 17-108 (July 17, 2017), at 63-64, available at: https://ecfsapi.fcc.gov/file/1071932385942/PK%20CC%20Updated%20Comments%20with%20Appendices%20FINAL.pdf.

[28] Hal Singer, "The Days of Common Carriage for Broadband Are Numbered. Here's Why," *Forbes* (May 17, 2017), available at https://www.forbes.com/sites/washingtonbytes/2017/05/17/the-days-of-common-carriage-for-broadband-are-numbered-heres-why/#77d8ba7978fb.

[29] George Ford, "Reclassification and Investment: An Analysis of Free Press' 'It's Working' Report," Phoenix Center for Advanced Legal and Economic Public Policy Studies (May 22, 2017), available at http://www.phoenix-center.org/perspectives/Perspective17-04Final.pdf.

> Free Press figures line up closely with Singer, with industry seeing about a 2.9 percent decline in capital investment in 2015 and 2.15 percent decline in 2016. [30]

For theoretical support, Free Press continues to rely on the *Title II Order*'s "virtuous cycle" theory, which, at a minimum, requires a showing of market power before any of the alleged virtuous cycle theory harms might occur.[31] Notably, Free Press does not try very hard to show that broadband ISPs have the market power necessary to support the virtuous cycle theory. The closest it comes is in asserting that cable companies saw a weakening of their high-speed monopolies following the *Title II Order*:

> The data presented in Figure 5 above shows that the percentage of the population living in Census Blocks with two or more ISPs offering downstream speeds above 25 Mbps increased sharply following the Open Internet Order, from 35 percent at the end of 2014 to 52 percent by mid-2016. This data is a consequence of telephone company ISPs upgrading their networks to narrow the capacity gap with their cable company ISP competitors.[32]

Free Press does not, however, attempt to attribute this decrease in broadband ISP concentration to the *Title II Order*. It notes only that this trend continued after the order but not whether it would have occurred anyway, or whether the decrease in concentration would have been even greater absent the order. In other words, Free Press does not appear to be arguing that the increase in competition is relative to a baseline scenario absent the *Title II Order*.

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[30] Doug Brake and Eilif Vanderkolk, "Comments of ITIF," WC Docket No. 17-108 (July 17, 2017), at 8-9, available at http://www2.itif.org/2017-comments-restoring-internet-freedom.pdf.

[31] *See* Theodore Bolema, "Allow Paid Prioritization on the Internet for More, Not Less, Capital Investment," *Perspectives from FSF Scholars*, Vol. 12, No. 16 (May 1, 2017), available at http://www.freestatefoundation.org/images/Allow_Paid_Prioritization_on_the_Internet_for_More,_Not_Less,_Capital_Investment_050117.pdf. *See also* Comments of the Free State Foundation, WC Docket No. 17-108 (July 17, 2017), at 50-55, available at: https://ecfsapi.fcc.gov/file/1071782635741/FSF%20Initial%20Comments%20-%20Restoring%20Internet%20Freedom%20-%20071717.pdf

[32] Comments of Free Press, at 106.

Vimeo similarly echoes the "virtuous cycle" argument that having a paid prioritization "fast lane" leads to no incentive to invest in the "standard lane":

> And if broadband providers can extract marginal revenue from priority access fees, they will have little incentive to maintain a high-quality "standard lane" experience for edge providers unwilling or unable to pay. They need not take actions to downgrade the "standard" experience; they can achieve the same result by failing to improve it as bandwidth needs grow compared to the premium experience.[33]

Vimeo at least tries to argue that the market is concentrated, and to thus establish the necessary precondition for harm under the virtuous cycle theory:

> The market for fixed broadband remains heavily concentrated: Over 75% of fixed broadband access is provided by one of five companies. Further, one type of service—cable—accounts for approximately 59% of all fixed broadband subscriptions. With merger activity on the rise, we will likely see only more industry consolidation (citation omitted).[34]

These figures from Vimeo are similar to those reported by INCOMPAS:

> Today, the four broadband providers that together provide 70% of residential connections, have market power in interconnection arrangements and negotiations, which allows them to charge a tax on Internet content requested and paid for by their subscribers.[35]

These concentration figures are not especially high. The DOJ/FTC Merger Guidelines[36] would not likely consider a market with a 75% share provided by five fixed broadband firms to be concentrated. And the figures from Vimeo ignore intermodal competition from broadband technologies. Any concerns raised by pro-regulatory commenters about industry consolidation can best be addressed by antitrust enforcement.

To a large extent, however, the entire debate about whether broadband investment has increased or decreased since 2015 misses the bigger picture. Broadband ISPs invested

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[33] Comments of Vimeo, at 14.
[34] Comments of Vimeo, at 18.
[35] Comments of INCOMPAS, at 28.
[36] U.S. Department of Justice and the Federal Trade Commission, Horizontal Merger Guidelines (August 19, 2010), available at https://www.ftc.gov/sites/default/files/attachments/merger-review/100819hmg.pdf.

heavily over many years in infrastructure during the era of light-touch regulation, prior to the 2015 *Title II Order*. It should not be presumed that such investment will continue under heavy Title II regulation. The Commission's first regulatory actions on privacy and under the general conduct standard injected uncertainty into the market, and Title II regulation creates even more uncertainty with the possibility of future price regulation.

Title II utility-style regulation may be appropriate for industries characterized by high fixed costs and technological stasis, but is too rigid for industries characterized by dynamic improvements in technology. As Tad Lipsky, former Acting Director of the FTC's Bureau of Competition, stated earlier this year:

> The temptation to look at the problems of a dynamic and quickly developing industry and to immediately apply this structure of economic regulation as a way of anticipating and making sure that future problem don't arise has largely been a failure. The Interstate Commerce Commission no longer exists. It was eliminated in 1996. The Civil Aeronautics Board no longer exists. I believe it was eliminated about 10 years earlier. It is, in many respects, a dubious and highly questionable and, in many industries, a failed system of regulation. So I am a light-touch regulator. I am a fan of antitrust as the way of ensuring that dynamic, free competition gives the consumer what he wants.[37]

Many of the pro-regulatory commenters claim that large parts of the country today have too few choices of providers. Assuming this could be substantiated with an economic analysis based on market data, the better policy response would be to encourage more market entry and investment, as Lipsky explains, rather than to resort to heavy-handed regulation of the firms already in the market. As Commissioner O'Rielly correctly stated

[37] Abbott "Tad" Lipsky, "The View from the FTC: Overseeing Internet Practices in the Digital Age," panel discussion at the Free State Foundation Ninth Annual Telecom Policy Conference (May 31, 2017), available at http://www.freestatefoundation.org/images/May_31_2017_FTC_Panel_Transcript_072017.pdf.

in his 2015 dissent to the *Title II Order*, "Monopoly rules designed for the monopoly era will inevitably move us in the direction of a monopoly.[38]

III. Broadband Internet Access Services Are Functionally Integrated Title I "Information Services" Offerings, Not Standalone Transmission Services Subject to Title II Public Utility Regulation

As explained in our initial comments,[39] broadband Internet access services meet the definition of "information services" under Title I of the Communications Act.[40] The Act defines an "information service" as "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service."[41] Broadband Internet service providers (ISPs) offer the capability for each of the functions contained in the statutory definition.[42]

Moreover, from the nature of the integrated functionalities that comprise the service offering, the information service status of broadband Internet access service is a straightforward matter of statutory definition. The Act's definition of an information service is not ambiguous. And the validity of this conclusion does not depend on the extraordinary degree of judicial deference accorded to agencies under the *Chevron* doctrine. Indeed, the Commission's previous decision to classify cable modem service as

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[38] Dissenting Statement of Commissioner Michael O'Rielly, *Title II Order*, at 330.
[39] Comments of the Free State Foundation, at 9-14.
[40] *See* 47 C.F.R. § 8.11(a) (defining "broadband Internet access service" as "[a] mass-market retail service by wire or radio that provides the capability to transmit data to and receive data from all or substantially all Internet endpoints, including any capabilities that are incidental to and enable the operation of the communications service.")
[41] 47 U.S.C. § 153(24).
[42] *See* Notice at ¶ 26.

a Title I information service in the *Cable Modem Order* (2002) was unchallenged.[43] The U.S. Supreme Court's decision to uphold the *Cable Modem Order* in *NCTA v. Brand X Services* (2005) applied *Chevron* deference to other aspects of the order – such as the Commission's simultaneous decision to not treat cable modem service as a Title II telecommunications service. If the Commission determines that broadband Internet access services is a Title I service and simultaneously determines that it is not a Title II service – as the Free State Foundation believes it should – the dual nature of such a conclusion would certainly receive *Chevron* deference under *Brand X*.[44] By itself, however, a Title I conclusion would satisfy a *de novo* standard of review.

A. Broadband Internet Access Service Is Not Pure Data Transmission and Broadband ISPs Are Not Mere Conduits for Accessing Third-Party Content on the Internet

Pro-regulatory commenters such as Free Press, Public Knowledge, State Attorneys General, Vimeo, and others deliberately mislabel broadband Internet access service as pure transmission and similarly mislabel broadband ISPs as "mere conduits" for end users to access third-party online content.[45] Based on those inaccurate descriptors, pro-regulatory commenters have insisted that broadband Internet access service fits the Title II definition of a telecommunications service.

However, pro-regulatory commenters have done little more than describe their own preferences that broadband networks operate like dumb pipes and that broadband

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[43] *National Cable & Telecommunications Assoc. v. Brand X Services*, 545 U.S. 967 (2005).
[44] *See Brand X*, at 992-993.
[45] *See, e.g.*, Comments of Free Press, at 41; Comments of Public Knowledge and Common Cause, at 2-3; Comments of Attorneys General of the States of Illinois, *et al*. ("State AGs"), WC Docket No. 17-108 (July 17, 2017), at 13-15, available at: https://ecfsapi.fcc.gov/file/10717283141719/2017.07.17%20Attorneys%20General%20Comments%20on%20Docket%20No.%2017-108.pdf; Comments of Vimeo, at 26.

ISPs serve as simple common carriers.[46] In an effort to support their argument for Title II regulation, it appears that pro-regulatory commenters worked backward from their preferences about how broadband networks should operate in order to avoid confronting the reality of how the do operate. Such a misguided analytical approach parallels the *Title II Order*'s admission that the reclassification decision was made to bolster the legality of its proffered regime of expansive, *ex-ante* public utility regulation.[47]

Although broadband Internet access service is *not* a mere conduit, the emptiness of employing that label as leverage for Title II classification is reflected in the fact that providing end users with gateway capability to retrieve stored information, by itself, constitutes an information service under Title I.[48] As indicated, a service offering need only offer the capability to perform one of the delineated functions contained in the statutory definition to meet the Title I definition of an information service. And further described below in subsection C, broadband Internet access services offer all of the functionalities in an integrated offering.

B. Sections 230 and 231 Bolster the Title I Classification Status of Broadband Internet Access Services

The definitional basis for Title I classification of broadband Internet access services is bolstered by the terms of Sections 230 and 231 of the Communications Act. Section 230

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[46] *See, e.g.*, Comments of Free Press, at 11-17; Comments of Open Technology Institute, at 29-30; Comments of Public Knowledge and Common Cause, at 22-23, 38-42.

[47] *See* FCC, In the Matter of Protecting and Promoting the Open Internet, WC Docket No. 14-28, Report and Order on Remand, Declaratory Ruling, and Order ("*Title II Order*"), at ¶5, ¶273. *See* Comments of Verizon, WC Docket No. 17-108 (July 17, 2017), at 33, available at: https://ecfsapi.fcc.gov/file/10717390819816/2017%2007%2017%20Verizon%20comments%202017%20Open%20Internet%20Notice.pdf. *See also* Comments of The Open Technology Institute, at 21-22, 24; Comments of Internet Association, at 17-19.

[48] *See, e.g.*, Comments of AT&T, WC Docket No. 17-108 (July 17, 2017), at 61-68, available at: https://ecfsapi.fcc.gov/file/10717906301564/AT%26T%20Internet%20Freedom%20Comments.pdf; Comments of Comcast, WC Docket No. 17-108 (July 17, 2017), at 12, available at: https://ecfsapi.fcc.gov/file/107171777114654/2017-07-17%20AS-FILED%20Comcast%202017%20Open%20Internet%20Comments%20and%20Appendices.pdf.

was passed by Congress as part of Title V of the Telecommunications Act of 1996. Section 230(f)(2) provides:

> The term "interactive computer service" means any information service, system, or access software provider that provides or enables computer access by multiple users to a computer server, including specifically a service or system that provides access to the Internet and such systems operated or services offered by libraries or educational institutions.[49]

And Section 231, which was passed as part of the Child Online Protection Act of 1998 and amends the Communications Act. Section 231(e)(4) provides:

> The term "Internet access service" means a service that enables users to access content, information, electronic mail, or other services offered over the Internet, and may also include access to proprietary content, information, and other services as part of a package of services offered to consumers. Such term does not include telecommunications services.[50]

These two provisions plainly identify Internet access services as types of information services. Specifically, Section 230(f)(2) describes an "information service" to include "a service or system that provides access to the Internet." And Section 231(e)(4) appears to foreclose the definition of Internet access services as telecommunications services.

Reliance on Sections 230(f)(2) and Section 231(e)(4) to inform the Commission's interpretations and applications of Titles I and II accords with widely accepted canons of statutory interpretation.[51] The Supreme Court has recognized there is a "natural presumption that identical words used in different parts of the same act are intended to have the same meaning."[52] And there is nothing in the context of either section that overcomes the presumption. Indeed, the similarity of circumstances confirms the presumption of similar meaning. As indicated, Titles I and II as well as Section 230 were

[49] 47 U.S.C. § 230(f)(2).
[50] 47 U.S.C. § 231(e)(4).
[51] *See* Comments of AT&T, at 85-90.
[52] *Atlantic Cleaners & Dryers v. United States*, 286 U.S. 427, 433 (1932).

adopted as part of the 1996 Act. And the 1996 Act's pro-competitive and deregulatory preamble is consistent with Congress's policy statement to keep the Internet "unfettered by… regulation" in Section 230(b)(2).[53]

The Supreme Court did not directly address the meaning or implications of Sections 230 and 231 for Internet access services. But in *USTelecom v. FCC* (2016), the D.C. Circuit panel's majority rejected the argument that Section 230 confirms that Internet access services are Title I information services. The panel's majority quoted the *Title II Order*'s statement that it is "unlikely that Congress would attempt to settle the regulatory status of broadband Internet access services in such an oblique and indirect manner" when it could have done so in the Telecommunications Act of 1996.[54]

Of course, Senior Judge Williams rightly disagreed with the panel's majority in this regard.[55] And commenters critical of the panel's majority persuasively point out that it is not oblique for Congress to address matters in a consistent manner in two different parts of the same legislation – as is the case with Section 230 and Title I.[56] Indeed, the panel's majority misses the point when it claims Congress could have settled the regulatory status of broadband Internet access services. What Congress actually stated, including what it stated in the 1996 Act, should decide the matter. Nor should the Commission find persuasive the majority panel's quotation of *Whitman v. American Trucking Associations* (2001) that "Congress . . . does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions."[57] Section 230 did not alter any fundamental details of Congress's regulatory scheme but was part and parcel of that

[53] 47 U.S.C. § 230(b)(2).
[54] *United States Telecommunications Assoc. v. FCC*, 825 F.3d 674, 703 (D.C. Cir. 2016) (quoting *Title II Order*, at ¶ 386).
[55] *USTelecom*, 825 F.3d at 770-771 (Williams, J., concurring in part and dissenting in part).
[56] *See, e.g.*, Comments of AT&T, at 72.
[57] 531 U.S. 457, 468 (quoted in *USTelecom*, 825 F.3d at 703).

scheme. Section 230 confirmed what follows from a plain reading of Title I – namely, that broadband Internet access service meets the definition of an information service.

Further, Section 230(f)(2) does not employ vague terms. And the majority panel did not otherwise purport to explain how circumstances reasonably warrant that Section 230 and Title I contain different meanings so as to overcome the presumption that identical words contained in different parts of the same act are intended to have the same meaning. The Commission should also recognize that the panel majority's observations regarding Section 230 and Title I were made pursuant to a highly deferential standard of review to the Commission's interpretive decisionmaking. However, the Commission need not preoccupy itself with the legally questionable extent of judicial deference accorded to the agency in *USTelecom v. FCC*. From an administrative standpoint, the Commission need only recognize that it retains authority to revisit the *Title II Order*'s dubious interpretation of Section 230(f)(2) and offer an interpretation that better corresponds to the structure of the Communications Act and with its plain meaning.

C. Broadband Internet Access Services Offer Functionally Integrated Information-Processing Capabilities to End Users

Broadband Internet access services are, in fact, integrated services that offer end users with capabilities to perform all of the functionalities delineated in the Title I definition. The integrated nature of broadband Internet access service functionalities has been aptly described by several commenters.[58] The information processing functions of

[58] *See, e.g.*, Comments of AT&T, at 73-82; Comments of CenturyLink, WC Docket No. 17-108 (July 17, 2017), at 15-28, available at: https://ecfsapi.fcc.gov/file/1071893493148/170717%20CTL%20Comments%20WC%2017-108%20FINAL.pdf; Comments of Comcast, at 12-20; Comments of CTIA, at 28-42; Comments of NCTA, WC Docket No. 17-108 (July 17, 2017), at 13-16, available at: https://ecfsapi.fcc.gov/file/10717113350969/NCTA%20NN%20Comments%20(7-17-17)%20-%20FINAL.pdf.

broadband Internet access services are not entirely apparent to end users. Broadband ISPs perform these functions for end users at a location deeper at the network level.

As helpfully identified by commenters, such functions include Internet routing, which determines whether and how data packets received by a router are to be dropped, forwarded, or processed.[59] The critical Domain Name System (DNS) functions offered by broadband ISPs have been described, in pertinent part, in comments by Richard Bennett, High Tech Forum,:

> DNS is an increasingly sophisticated distributed function that translates domain names into IP addresses… implements the DNSSEC [Domain Name Security Extensions] protocol, an authentication service that validates the correctness of the domain name to IP address mapping and protects users from man in the middle (MITM) attacks… connects Content Delivery Network users to the nearest and/or fastest location… provides a reverse mapping from IP addresses to domain names, and distinguishes authoritative domains from other domain names that may share an IP address.
>
> DNS manages aliased domain names – another case of multiple domain names sharing a common IP address – and provides both IPv4 and IPv6 addresses…[60]

Broadband Internet access service also includes capabilities to store information, including cloud storage of personal files or other network processes that save "user IDs and passwords, configuration parameters[,] and log files."[61] Moreover, commenters have described how many offerings labeled as mere "add-ons" by the *Title II Order* and by pro-regulatory commenters, such as "user-directed content filtering, the free data services

[59] Comments of Richard Bennett, WC Docket No. 17-108 (July 17, 2017), at 12, available at: https://ecfsapi.fcc.gov/file/10718451903062/Bennett%20Comments%20on%20Internet%20Freedom.pdf; Comments of Comcast, at 12.
[60] Comments of Bennett, at 16.
[61] Comments of Comcast, at 12.

enabled by video optimization, security services, and email" are "inherently intertwined with the underlying service."[62]

D. *Advances in Broadband Internet Access Service Technologies and Functions Bolster Title I Classification, Not Title II Classification*

Advances in broadband Internet access service technologies and functions strengthen the conclusion that they are Title I services, not Title II services. Contrary to the claims by pro-regulatory commenters, the Commission's light-touch regulatory framework that regarded Internet access services as information services was not dependent on early 1990s technology or a mere by-product of it. In essence, pro-regulatory commenters such as Ad Hoc Telecom Users, Free Press, and Open Technology Institute argue that the transition from simpler dial-up Internet access services to more sophisticated broadband Internet access services pushes these advanced services outside the broad scope of Title I.[63] But they are mistaken in their claim. The light-touch framework was based on straightforward interpretations of statutes that have not changed in their essential meaning. And the basic technological principles underlying Internet access service remain in place.[64]

Equally important, technological advancements in broadband Internet access service technologies and capabilities bolster Title I classification, not Title II classification. Certainly, broadband ISPs now offer and thereby enable the retrieval, accessing, storing, and processing of exponentially more information via online content,

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[62] Comments of CTIA, WC Docket No. 17-108 (July 17, 2017), at 40, available at: https://ecfsapi.fcc.gov/file/10717020224587/RIF%20CTIA%20Comments%20(071717).pdf.
[63] Comments of Ad Hoc Telecom Users Committee, WC Docket No. 17-108 (July 17, 2017), at 5-7, available at: https://ecfsapi.fcc.gov/file/10717937608186/COM%20FINAL.pdf; Comments of Free Press, at 50-51; Comments of Open Technology Institute, 24-28; Comments of Vimeo, at 27-29.
[64] *See* Comments of Verizon, at 31 ("Although Internet service has advanced since then in important ways, these fundamental technological principles underlying the service have remained.").

applications, goods, and services than in years prior.[65] We agree with commenters who have pointed out that broadband Internet access service functionalities are more integrated and offer more information-processing capabilities than when the *Cable Modem Order* and the Commission's subsequent Title I broadband orders were issued.[66]

Moreover, comments by Richard Bennett have identified ways in which enhancements in the underlying technical capabilities that previously formed the basis of the Commission's Title I definition of broadband Internet access services have strengthened the case for defining those services as information services. For example, "[w]ith the advent of DNSSEC," which provides important information security functions and "processes much more information than simple DNS did," DNS service offered by broadband ISPs today is "much more information-processing intensive than was the DNS service provided by ISPs" when the *Cable Modem Order* was adopted.[67] Additionally: "Routing service is more information-processing intensive today than it was in 1992: there are many more routes, there are two types of IP address formats in use, and ISPs support new protocols such as LISP [Locator/Identifier Separation Protocol] that attempt to deal with the explosion in the size of the routing table."[68]

E. The Provision of Certain Information Functional Capabilities by Third Parties Is Irrelevant to the Title I Status of Broadband Internet Access Services Offered to End Users by Broadband ISPs

The claim by pro-regulatory commenters that third parties perform information service-related functionalities rather than broadband ISPs is misleading and irrelevant for

[65] *See* Comments of CenturyLink, at 20-24.
[66] *See, e.g.*, Comments of CenturyLink, at 20; Comments of CTIA, at 41.
[67] Comments of Bennett, at 16.
[68] Comments of Bennett, at 20-21.

Title I classification purposes.[69] As indicated, broadband ISPs routinely perform many, if not all, of the functionalities delineated in the Title I definition of an information service. Further, for Title I definitional purposes, it makes no difference whether particular functionalities might in certain instances be performed by third parties rather than broadband ISPs themselves. Broadband ISPs' coordination with third parties, by itself, does not alter nature of the functionality or service that broadband ISPs ultimately offer to end users. In such circumstances, it is the broadband ISPs that combine third-party supplied functionalities with their own and ultimately provide the integrated service offering to end users – with end users routinely unaware of whether or which particular functions might happen to be performed by third parties rather than broadband ISPs.

We therefore agree with commenters who have similarly described the irrelevancy of third-party provisioning of particular functional capabilities as part of broadband ISPs offerings to end users.[70] This includes agreement with commenters' identification of the internal inconsistency of the *Title II Order* and *USTelecom v. FCC* decision in this regard.[71] The panel's majority upheld the *Title II Order*'s conclusion that DNS and caching constitute information services when provided by third parties but telecommunications services when those same functionalities are provided by broadband ISPs.[72] This opposing definitional treatment of identical functions provided as part of the same service offering is illogical, arbitrary, and should be rescinded by the Commission. The Commission's prior precedents rightly concluded that the classification of broadband Internet access services should turn on provisioning of third party-provided

[69] *See, e.g.*, Comments of Ad Hoc Telecom Users Committee, at 6-7; Comments of Free Press, at 52; Comments of State AGs, at 13-15.
[70] *See* Comments of AT&T, at 95-96; Comcast, at 18-20; Comments of CTIA, at 40-41; NCTA, at 16-17.
[71] *See, e.g.*, Comments of AT&T at 95-96; Comments of Comcast, at 18-20.
[72] *See* 825 F.3d at 705-7066 (citing *Title II Order*, at ¶ 370 n.1046).

functionalities such as DNS and caching – and that conclusion was upheld by the Supreme Court in *Brand X*.[73] As a matter of reasonable statutory construction and internally consistent policy, the Commission should now return to its earlier precedents.

F. Broadband Internet Access Services Do Not Fit Within the Narrow Telecommunications Management Exception to Title I's Definition of Information Services

Pro-regulatory/Title II commenters significantly qualify their bold claim that broadband Internet access service involves mere transmission in that they concede broadband ISPs do perform functions beyond transmission – yet claim that those functions fall under the telecommunications network management exception.[74] But broadband Internet access service does not fit within that exception.

Title I's definition of "information services" excludes the "capability for management, control, or operation of a telecommunications system or the management of a telecommunications system."[75] According to the *Non-Accounting Safeguards Order* (1996), the telecommunications management exception "covers services that may fit within the literal reading of the information services definition, but that are used to facilitate the provision of a basic telecommunications service, without altering the character of that service."[76] The 1996 Act carried forward and codified the narrow exceptions to the definition of "enhanced services" contained in the Modification of Final Judgment and in pre-1996 Act Commission decisions regarding adjunct-to-basic

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[73] *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities Broadband Providers*, Report and Order and Notice of Proposed Rulemaking ("*Wireline Broadband Order*"), 20 FCC Rcd 14853, 14864 ¶ 16 (2005); *Cable Modem Order*, at ¶¶ 25, 38; Notice, at ¶ 28. *See also Brand X*, 545 U.S. at 998-99 (rejecting argument that the availability of third-party information-processing functionalities undercuts an information service classification for BIAS).

[74] *See, e.g.*, Comments of Public Knowledge and Common Cause, at 42-53; Comments of State AGs, at 16.

[75] 47. U.S.C. § 153(24).

[76] FCC, Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as amended, CC Docket No. 96-149, Report and Order and Further Notice of Proposed Rulemaking ("*Non-Accounting Safeguards Order*") (released December 24, 1996), at ¶ 123.

functionalities used to deliver telephone service.[77] Broadband Internet access services do not fit within this exception because its functionalities are far more wide-ranging than telephone or basic telecommunications services.

Commenters rightly point to Commission precedents that regard functionalities designed to "facilitate use of the basic network without changing the nature of basic telephone service" as falling within the exception.[78] Thus, the "offering of access to a data base for purpose of obtaining telephone numbers" is a telecommunications service. But "an offering of access to a data base for most other purposes is the offering of an enhanced service" – that is, an information service.[79] DNS provides end users with data accessing capability for purposes typically unrelated to obtaining telephone numbers.[80]

Further, commenters rightly explain that the exception is limited to functionalities that enable a telecommunications service provider to establish a dedicated voice transmission pathway through its network for its own benefit and without interaction by the end user.[81] But access, storage, retrieval, and other broadband Internet access service capabilities routinely offer information sought by or beneficial to end users, and not intended to improve broadband ISP efficiencies. For example, DNS involves both end-user interaction with broadband ISPs and broadband ISP interaction with the end-users and other servers to convert domain names sought by the end user into IP addresses.[82]

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[77] See *Non-Accounting Safeguards Order*, at ¶ 107.
[78] FCC, North American Telecommunications Association; Petition for Declaratory Ruling Under Section 64.702 of the Commission's Rules Regarding the Integration of Centrex, Enhanced Services, and Customer Premises Equipment, Memorandum Opinion and Order ("*NATA Centrex Order*"), 101 F.C.C.2d 349, 361 ¶ 28 (1985) (cited in Comments of AT&T, at 66; Comments of CTIA, at 35).
[79] *NATA Centrex Order*, at ¶ 26 (cited in Comments of AT&T, at 77).
[80] *See* Comments of AT&T, at 77.
[81] Comments of AT&T, at 77.
[82] *See* Comments of Bennett, at 24.

Nor is it reasonable to consider DNS and caching functions to be matters of telecommunications system management when performed by broadband ISPs, while considering those same functions to be information services when performed by non-broadband ISPs. As described earlier, the *Title II Order* arbitrarily singled out broadband ISPs for disparate treatment, concluding DNS and caching functionalities fell under the telecommunications management exception when performed by broadband ISPs. Indeed, Free Press argues in its comments that the Commission should read into the definition of information services the notion that they are offered only by edge service providers.[83] This focus on the identity of the service provider rather than the functions being provided is wrong and reflects not the underlying capabilities but pro-regulatory commenters' preferences regarding the roles they think broadband ISPs should undertake. Thus, the Commission should return to its earlier precedents that did not regard broadband Internet access services or their DNS and caching functional capabilities as subsumed by the narrow scope of the telecommunications management exception.[84]

IV. Competitive Broadband Market Conditions Warrant, at Most, Light-Touch Regulation Under Title I, Not Heavy-Handed Title II Public Utility Regulation

A. Pro-Regulatory Comments Wrongly Exclude Mobile Broadband From Their Market Analyses

Although comments by Public Knowledge and Common Cause claim "the need for common carrier regulation of broadband providers does not rise and fall with the number of retail competitors available to consumers," supposedly "the lack of broadband competition and choice reinforce how essential the Open Internet rules are, as well as

[83] Comments of Free Press, at 30-31.
[84] *See, e.g.*, Comments of NCTA, at 17 (citing Notice, at ¶ 37 [internal cite omitted]).

Title II more broadly, to protecting broadband consumers."[85] Comments by Free Press made a similar claim.[86] But pro-regulatory commenters are incorrect.

The latest FCC data shows a strong deployment of fixed wireline broadband. According to the Commission's *Internet Access Services Report: Status as of June 30, 2016*, 42% of census blocks with housing units were served by two or more wireline broadband ISPs offering speeds of 25 Mbps or higher, and 79% of census blocks with housing units were served by three or more such ISPs offering speeds of 10 Mbps or higher.[87]

Also, pro-regulatory commenters overlook an important aspect of the broadband Internet access services market: intermodal competition – or competition between many technologies – including fiber, cable, satellite, and mobile. Pro-regulatory commenters wrongly exclude mobile broadband Internet access from their analyses of broadband competition. For example, in its section on broadband competition, Free Press fails to discuss the ubiquitous deployment of mobile broadband networks.[88] And Public Knowledge and Common Cause cite old data from 2014, which only shows fixed wireline broadband ISPs.[89]

Yet when mobile and satellite technologies are included in a broadband market analysis, it is clear the market is dynamically competitive. According to the *Nineteenth Wireless Competition Report* (2016), as of December 2015, 95.9% of the U.S. population had access to three or more 4G LTE mobile service providers and 89.1% had access to

[85] Comments of Public Knowledge and Common Cause, at 76.
[86] Comments of Free Press, at 22.
[87] FCC, Internet Access Services Report: Status as of June 30, 2016 ("*Internet Access Services Report*") (2017) at 6.
[88] Comments of Free Press, at 86-120.
[89] Comments of Public Knowledge and Common Cause, at 77.

four or more providers.[90] And the Commission's own speed test found an average 4G download speed of 16.68 Mbps during the second half of 2015.[91] Since December 2015, it is acknowledged that the speeds offered by wireline, wireless, and satellite providers have increased, in some instances dramatically and ubiquitously. As of December 2015, satellite providers were offering broadband services to 99.1% of developed census blocks at download speeds of at least 10 Mbps.[92] HughesNet now offers ubiquitous satellite broadband service at a download speed of 25 Mbps.[93]

A large proportion of the broadband market is excluded from consideration in the analysis offered by Public Knowledge and Common Cause. Mobile connections represent nearly 72% of all broadband connections.[94] Public Knowledge and Common Cause state that they exclude mobile broadband because "some low-income consumers are priced out of fixed broadband and go mobile-only," and that this "shows that mobile services are more important to that demographic, not that the two products are found to be 'substitutes.'"[95] But while it may be true that some consumers view fixed and mobile services as complements, the data shows that many consumers view the two as substitutes. A study by the National Telecommunications and Information Administration found that consumers across all income levels are substituting mobile broadband for fixed

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[90] FCC, 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, WT Docket No. 16-137, *Nineteenth Report* ("*Nineteenth Wireless Competition Report*") (September 23, 2016), at 30-31, ¶ 39 (internal cite omitted).
[91] Ookla, "Speedtest Market Report" (August 3, 2016), available at: http://www.speedtest.net/reports/united-states/.
[92] *Internet Access Services Report*, at 6.
[93] Hughes, Press Release: "Hughes Announces HughesNet Gen5 High-Speed Satellite Internet Service" (March 7, 2017), available at: https://www.hughes.com/who-we-are/resources/press-releases/hughes-announces-hughesnetgen5-high-speed-satellite-internet?locale=en.
[94] *Internet Access Services Report: Status as of June 30, 2016,* Industry Analysis and Technology Division, Wireline Competition Bureau, (April 2017) at 16, Figure 12.
[95] Comments of Public Knowledge and Common Cause, at 78.

broadband. For example, 29% of low-income consumers, 18% of middle-income consumers, and 15% of high-income consumers are mobile-only broadband users.[96]

Every individual consumer places a unique valuation on fixed and mobile services. It is important that the FCC analyze and approach broadband competition according to the general principle of technological neutrality, thereby ensuring that consumer choices are made according to their perceptions of value and not boxed in by Commission policy preferences. In other words, respect for consumer choice means the Commission should not influence consumers to adopt one technology over another by treating some broadband technologies more favorably than others through regulation. In view of the competitive conditions in the broadband market – which include intermodal competition – the Commission should re-establish a light-touch regulatory framework favorable to investment and innovation in all broadband platforms alike.

B. Pro-Regulatory Comments Ignore or Downplay the Market Trend Away from ETFs and Toward Lower Switching Costs

Many of the pro-regulatory commenters claim that high switching costs restrict consumer choice in the broadband market. Comments by the Open Technology Institute state that "[h]igh consumer switching costs, Early Termination Fees (ETFs), and difficulties in porting phone numbers and migrating data remain features of the mobile BIAS marketplace that make it impractical for consumers to switch back and forth."[97] State Attorneys General claim: "Even in the areas of the country with more than one broadband competitor, long-term contracts and installation fees make it difficult to switch providers. Competition therefore provides an inadequate check against abusive

[96] Giulia McHenry, "Evolving Technologies Change the Nature of Internet Use," *NTIA*, (April 19, 2016), Figure 2, available at: https://www.ntia.doc.gov/blog/2016/evolving-technologies-change-nature-internet-use.

[97] Comments of the Open Technology Institute, at 109.

practices."[98] And Vimeo states: "Even when there is choice, high switching costs and lack of transparency preclude any meaningful market discipline. The 2015 Order anticipates and addresses these market deficiencies."[99]

But these claims are not true. As stated in Free State Foundation's comments, the *Eighteenth Wireless Competition Report* (2015), which is snapshot of the market at the time the *Title II Order* was adopted, found there is an ongoing trend to reduce switching costs among mobile providers. The *Eighteenth Report* stated that since 2013 there has been "a rapid shift from traditional postpaid contract plans to no-contract plans."[100] Also:

> [M]arketing tactics have increasingly focused on Early Termination Fee ('ETF') buyouts to encourage customers to switch from rivals. ETF buyouts typically include a cash payment or credit to reimburse ETFs for customers on traditional contract plans, or alternatively, to pay off the remaining balance of an [equipment installment plan] EIP, plus a separate device credit for trading in a customer's current handset.[101]

Similarly, the *Nineteenth Wireless Competition Report* (2016) cited examples of switching incentives from all four national mobile carriers, including plan buyouts, phone discounts, service discounts, and free trials.[102] It also cited plans by major carriers to discontinue term contracts and equipment subsidies. Given these unmistakable trends and given that 87% percent of Americans have access to four or more mobile broadband ISPs with each of them attempting to pry consumers from the other,[103] concerns regarding high switching costs as a rationale for public utility regulation are entirely unsupportable.

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[98] Comments of State AGs, at 18.
[99] Comments of Vimeo, at 3.
[100] FCC, Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, Including Commercial Mobile Services, WT Docket No. 15-125, *Eighteenth Report* ("*Eighteenth Wireless Competition Report*") (released December 23, 2015), at ¶ 73.
[101] *Eighteenth Report*, at ¶ 90.
[102] *Nineteenth Report*, at ¶ 87.
[103] *Nineteenth Report*, at 31, Chart III.A.2.

Switching costs are an example of transaction costs, which exist in every market to some extent. Low transaction costs are ideal for a competitive marketplace. Yet high transaction costs by themselves do not constitute abusive practices, particularly when consumers voluntarily agree to engage in the transactions in a competitive market. And consistent with the Commission's finding in two separate reports, innovation and investment in mobile broadband technologies have created more competition, decreased transaction costs, and created switching incentives. The Commission should therefore consider pro-regulatory commenter analyses of the broadband marketplace that include high switching costs to be unrealistic and unpersuasive.

C. *Dynamic Intermodal Competition and Switching Incentives Eliminate Gatekeeper Power Concerns*

Comments of the Ad Hoc Telecom Users state that "[o]nce a subscriber selects an ISP, businesses and other edge providers have no option for communicating with the subscriber besides that ISP, regardless of the competitive choices available to the subscriber at the time of selection."[104] Also, comments by Public Knowledge and Common Cause claim that a "broadband provider is able to act as a gatekeeper" because a content provider "has no way to reach that consumer except through their broadband provider."[105] Public Knowledge and Common Cause further rest on the far-fetched claim that "every broadband ISP has a monopoly in the 'market' for reaching its own customers."

Of course, innumerable business transactions and service markets would equally be swept up in such a highly idiosyncratic understanding of monopoly. Such a view of monopoly is divorced from modern antitrust concepts. And that view fails to take stock

[104] Comments of The Ad Hoc Telecom Users Committee, at 9.
[105] Comments of Public Knowledge and Common Cause, at 74.

of the incentives of broadband ISPs to attract and retain end users who likewise have the ability to switch providers offered by competition as well as the incentives to switch providers because of offerings like ETF buyouts.

Moreover, the dynamically competitive state of the broadband Internet access services market and mobile broadband ISP-offered switching incentives eliminate any prospect of "gatekeeper power" that pro-regulatory commenters are warning against. Both broadband ISPs and edge providers want to maximize their consumer base. And broadband ISPs across multiple technologies (cable, fiber, DSL, satellite, mobile) are competing for the same consumers. Consumers hold the power to switch broadband providers if any abuse occurs, encouraging providers to be on their best behavior. Contrary to pro-regulatory commenters' claims, competition provides a regulatory check against consumer harm for broadband Internet access services.

The real gatekeeper at issue is the one created by the Commission when it adopted the general conduct standard in the *Title II Order*. That vague standard has created a regime of innovation by permission. By adopting the general conduct standard's expansive and non-exhaustive set of factors, combined with the agency's broad discretion in applying them and shifting burdens of production when it sees fit, the FCC has effectively established itself as the gatekeeper to innovation in the broadband market. The Commission can undo its self-created gatekeeper problem by rescinding its general conduct standard and by re-establishing a light-touch regulatory framework for broadband Internet access services under Title I.

D. Free Data Mobile Plans Benefit Consumers and Should Not Be Restricted

Free data plans, or zero-rated services, are consumer-friendly offerings that allow consumers to have unlimited access to specific websites or applications without it counting towards monthly data caps or thresholds. Through these innovative plans, edge service providers like Facebook or streaming music service providers pay some portion of the costs of data traffic related to their applications, encouraging consumers to use their applications by providing cost savings. Consumers, particularly low-income consumers, benefit from accessing "free data" without paying a monetary fee.[106]

However, pro-regulatory commenters want to ban or heavily restrict these consumer-friendly services. Open Technology Institute says that free data services "have an obvious competitive harm by pricing out smaller or startup edge providers that are unable to pay for the zero rating."[107] They also claim that "[z]ero rating harms the public interest by distorting the market, stifling innovation, and limiting consumer choice."[108]

In reality, free data services are innovative offerings that benefit end user consumers by allowing them to access content without having to pay for the traffic. Free data services incentivize additional online activity for mobile-only consumers. As stated earlier, there is a national trend of consumers across all income levels substituting mobile broadband for fixed broadband. Free data services allow mobile-only consumers to accomplish more on the Internet without exceeding their monthly data caps. For example, because streaming video does not count towards data caps under some free data services

[106] Marcella Gadson, "Understanding and Appreciating Zero-Rating: the Use and impact of Free Data in the Mobile Broadband Sector," *Multicultural Media, Telecom and Internet Council*, (2016), at 5, available at: http://mmtconline.org/WhitePapers/MMTC_Zero_Rating_Impact_on_Consumers_May2016.pdf.
[107] Comments of the Open Technology Institute, at 14.
[108] Comments of the Open Technology Institute, at 14.

like T-Mobile's "Binge On," mobile-only consumers can allocate data for other uses, such as finding directions, reading a news article, or taking a political survey.

Free data plans also enhance consumer choice. Consumers widely perceive free data plans as compliments to plans with data thresholds or caps, since free data plans enable consumers to access certain websites or content without the traffic counting against the data allotments of their service plans. Unlimited data plans are viewed as substitutes to free data plans and data caps, particularly for consumers who use a lot of traffic. Of course, each type of plan serves a different purpose and each individual consumer can subscribe to the plan that best fits his or her preferences. These complimentary and substitutable options spur consumer demand and usage and allow for an efficient allocation of data usage based on consumer preferences.

The Commission should recognize that these innovative mobile broadband offerings benefit consumers in the short-term by providing free data usage and by enticing value-conscious consumers to increase their usage, while also promoting long-term investment by mobile broadband ISPs. That is, freedom for consumers to choose the type of mobile plan that best fits their preferences increases demand for mobile services. Increased demand spurs additional content offerings from edge providers, and increases incentive for network investment by broadband ISPs. And to the extent that edge providers benefit from covering a portion of the costs of data traffic associated with consumer usage of their content or applications, consumers enjoy a valuable discount while broadband ISPs can obtain increased returns on investment and draw from those increased returns to upgrade networks or deploy in underserved areas.

The regulatory uncertainty caused by the *Title II Order*'s general conduct standard and Chairman Wheeler's investigation of free data plans also halted new offerings for unlimited data plans. Despite the consequences of that investigation for consumer choice, Open Technology Institute argues in its comments that the Commission should use its general conduct standard to investigate data caps and free data plans. It further argues that "[e]liminating the general conduct rule will not promote network investment."[109]

Initial comments of the Free State Foundation explained why the general conduct standard creates regulatory uncertainty and should be repealed.[110] Eliminating the general conduct standard will promote investment. For starters, it is no coincidence that in the week following Chairman Ajit Pai's February 2017 announcement to shut down the FCC's investigation of free data plans, all four major mobile providers updated or announced new unlimited data offerings.[111] Moreover, as described in Free State Foundation's initial comments and further described in Section IV of this reply comment,[112] there is good evidence that the regulatory uncertainty caused by the Commission's adoption of the general conduct standard in its *Title II Order* harmed broadband investment. The *Nineteenth Wireless Competition Report* acknowledged a drop from $31.9 billion to $30.9 billion in mobile broadband infrastructure investment between 2015 and 2014,[113] coinciding with the order's adoption.

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[109] Comments of the Open Technology Institute, at 62.
[110] Comments of the Free State Foundation, at 55-56.
[111] Michael Horney, "Free Market Orientation Spurs Unlimited Data Plans," *Free State Foundation Blog* (March 23, 2017), available at: http://freestatefoundation.blogspot.com/2017/03/free-market-orientation-spurs-unlimited.html.
[112] Comments of the Free State Foundation at 30-32.
[113] *Nineteenth Report*, at ¶ 24. *See also* Comments of Free State Foundation, at 32 (internal cite omitted).

The Commission should decline to follow pro-regulatory commenters' calls to ban or restrict free data plans. Instead, it should eliminate the general conduct standard and expressly recognize the pro-consumer and pro-investment benefits of free data plans.

V. Pro-Regulatory Comments Opposing Title I Reclassification and Returning Privacy Protection Jurisdiction to the FTC Misconstrue the Communications Act and Ignore the FTC's Superior Institutional Capabilities

Responding to the Notice's recognition that the FTC has "decades of experience and expertise" as a consumer privacy agency, Public Knowledge and Common Cause first try to dismiss the capabilities of the FTC because "it is not the expert agency on communications networks."[114] Public Knowledge and Common Cause next argue that due to FTC structural limitations, only *ex ante* regulation by the FCC can protect consumers' broadband privacy:

> Because the FTC lacks both effective rulemaking authority and specific power from Congress to develop standards to protect consumer privacy specifically, the agency is constrained by the limits of section 5 to apply the same, general "unfair and deceptive" standard to online privacy issues. Consequently, the FTC's enforcement actions usually involve broken privacy promises or determining whether companies are adhering to general industry practices rather than what practices would best protect consumers... Unfortunately, enforcement actions without the ability to adopt bright line rules are not enough to protect consumer broadband privacy.[115]

Open Technology Institute's comments make largely the same arguments as Public Knowledge and Common Cause. They invoke the FCC's expertise in telecommunications services and its rulemaking authority in claiming the FTC has "less

[114] Comments of Public Knowledge and Common Cause, at 91-92.
[115] Comments of Public Knowledge and Common Cause, at 92-93 (citations omitted).

authority and more roadblocks to clear, bright-line protections," with FTC effectiveness "undermined by a lengthy review process and limited enforcement of consent orders."[116]

Both of these pro-regulatory commenters ignore the superior institutional capability of the FTC and how it was up to the task of protecting privacy for decades prior to the 2015 *Title II Order*. As described in the Free State Foundation's comments,[117] the FTC's institutional advantages include having an established Division of Privacy and Identity Protection and a staff of attorneys, investigators and economists with extensive experience evaluating privacy matters from hundreds of privacy cases, including actions against broadband providers and other major companies in the Internet ecosystem.[118] Witness, for example, the FTC's recent action this month against market-dominant Uber, sanctioning the company for the inadequacy of its privacy protections.[119]

The FCC's first major rulemaking regarding privacy protection following the *Title II Order*, which created one set of rules for ISPs and one set of rules for everyone else, does not inspire confidence in whether the FCC is prepared to take the lead in Internet privacy protection.[120] As former FTC Chairman Jon Leibowitz explained:

> As the former Democratic chairman of the Federal Trade Commission, the nation's leading privacy enforcement agency, which has brought more than 500 privacy cases, including more than 50 cases against companies for misusing or failing to reasonably protect customer data, let me assure you: the FCC's rules are deeply flawed.

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[116] Comments of the Open Technology Institute, at 38 (cites omitted). *See also id*., at 39-40.
[117] Comments of the Free State Foundation, at 42-45.
[118] *See* Maureen K. Ohlhausen, Commissioner, U.S. Federal Trade Commission, "Privacy Regulation in the Internet Ecosystem," Free State Foundation Eighth Annual Telecom Policy Conference (March 23, 2016), available at https://www.ftc.gov/system/files/documents/public_statements/941643/160323fsf1.pdf.
[119] *See* FTC, Press Release: "Uber Settles FTC Allegations that It Made Deceptive Privacy and Data Security Claims (August 15, 2017), available at: https://www.ftc.gov/news-events/press-releases/2017/08/uber-settles-ftc-allegations-it-made-deceptive-privacy-data.
[120] *See* FCC, Protecting the Privacy of Customers of Broadband and Other Telecommunication Services, WC Docket No. 16-106, Report and Order ("*Broadband Privacy Order*") (December 2, 2016), available at https://www.gpo.gov/fdsys/pkg/FR-2016-12-02/pdf/2016-28006.pdf.

> By creating a separate set of regulations that bind only internet service providers — but not other companies that collect as much or more consumer data — with heightened restrictions on the use and sharing of data that are out of sync with consumer expectations, the FCC rejected the bedrock principle of technology-neutral privacy rules recognized by the FTC, the Obama administration, and consumer advocates alike. Protecting privacy is about putting limits on what data is collected and how it is being used, not who is doing the collecting, and for that reason, a unanimous FTC — that is, both Democratic and Republican commissioners — actually criticized the FCC's proposed rule in a bipartisan and unanimous comment letter as "not optimal," among 27 other specific criticisms of the rule.[121]

Pro-regulatory commenters totally ignore problems with the *ex ante* approach. Thomas Pahl, Acting Director of the FTC's Consumer Protection Division, recently explained the flaw in claims that *ex ante* privacy regulation is superior—and which are similar to claims made by pro-regulatory commenters:

> Some have argued it would be better for the government to address online data security and privacy through regulation rather than proceeding case by case. Rulemaking imposes standards based on a prediction that they will be necessary and appropriate to address future conduct. Case-by-case enforcement, by contrast, involves no such prediction because it challenges and remedies conduct that has already occurred. Of course, such enforcement also has a prophylactic effect as companies look at past enforcement to guide their conduct. The Internet has evolved in ways that we could not have predicted, and is likely to continue to do so. Given the challenges of making predictions about the Internet's future, we need case-by-case enforcement which is strong, yet flexible, like steel guardrails. We do not need prescriptive regulation, which would be an iron cage.[122]

The *ex ante* prescriptive approach has other drawbacks, as Mr. Pahl explains:

> The call for rules to provide guidance on online data security and privacy also overestimates the guidance provided by prescriptive regulation. Prescriptive regulation, of course, can provide some certainty in the short term. But in fast-changing areas like online data security and privacy, regulations would need to be amended very often to remain current.

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[121] Jon Leibowitz, Letter to the Editor, *Kennebec Journal* (April 13, 2017), available at http://www.centralmaine.com/2017/04/13/former-ftc-chairman-collins-right-on-privacy/.

[122] Thomas B. Pahl, "The View from the FTC: Overseeing Internet Practices in the Digital Age," panel discussion at the Free State Foundation Ninth Annual Telecom Policy Conference (May 31, 2017), available at http://www.freestatefoundation.org/images/May_31_2017_FTC_Panel_Transcript_072017.pdf.

> Amending regulations is cumbersome and time consuming, even where agencies can use APA notice and comment rulemaking procedures. And so such amendments by agencies are very unlikely to keep up with the pace of change. Out-of-date rules can be very unclear in their application to new technologies and cause confusion and unintended consequences in the marketplace.[123]

The FTC's capabilities also extend to enforcement actions involving alleged unfair and deceptive trade practices pursuant to Section 5 of the Federal Trade Act.[124] As explained by Professor Joshua Wright, a member of the Free State Foundation's Board of Academic Advisors and former FTC Commissioner, reclassifying broadband Internet access services under Title I would enable the FTC to address potential concerns posed by paid prioritization and other vertical arrangements involving broadband ISPs under antitrust jurisprudence's "rule of reason." According to Prof. Wright: "The rule of reason approach examines vertical agreements on a case-by-case basis by "weighing costs and benefits, and recogniz[ing] possible losses from enforcement errors that go in either direction."[125] Because the economics literature recognizes that vertical arrangements such as paid prioritization are typically precompetitive, "rule of reason analysis would not result in a categorical ban on vertical agreements" such as the one imposed in the *Title II Order*.[126] In case-by-case evaluation, such vertical agreements would be subject to FTC enforcement action "only if careful economic analysis concluded there are anticompetitive effects greater than any procompetitive effects or efficiencies."[127] As Prof. Wright concludes, an FTC antitrust enforcement approach to broadband ISP

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[123] Pahl, "The View from the FTC: Overseeing Internet Practices in the Digital Age."
[124] 15 U.S.C. §45. *See* Comments of the Free State Foundation, at 40-42.
[125] Joshua D. Wright, "Antitrust Provides a More Reasonable Framework for Net Neutrality," *Perspectives from FSF Scholars*, Vol. 12, No. 27 (August 16, 2017), at 4, available at: http://www.freestatefoundation.org/images/Antitrust_Provides_a_More_Reasonable_Framework_for_Net_Neutrality_Regulation_081617.pdf.
[126] Wright, "Antitrust Provides a More Reasonable Framework for Net Neutrality," at 4.
[127] Wright, "Antitrust Provides a More Reasonable Framework for Net Neutrality," at 4.

network management practices "can reach the harms envisioned by net neutrality proponents" and "it is superior to alternatives that would condemn vertical arrangements in broadband markets without proof of harm to competition."[128]

In short, the arguments made by pro-regulatory commenters suffer from at least three serious flaws. With almost no support, they casually dismiss the institutional advantage of the FTC over the FCC. They then fail to appreciate the deterrence benefits that are achieved from *ex post* privacy regulation. They also completely fail to consider the difficulties of tailoring *ex ante* regulation of broadband ISP privacy practices as well as antitrust rule of reason approach for broadband ISP network management practices to future conduct that has not occurred and to changing market realities.

VI. The FCC Should Incorporate and Build On the Guidance Used by Executive Agencies in Preparing A Cost-Benefit Analysis

A. Pro-Regulatory Commenters' Criticisms of the Notice's Proposal to Adhere to Analytical Guideposts Used by Executive Agencies Are Empty

Among pro-regulatory commenters, only INCOMPAS and Free Press appear to raise any significant objection to the FCC conducting a cost-benefit analysis. Neither is persuasive.

Comments by INCOMPAS do little more than argue that any cost-benefit analysis the FCC conducts to do will fall short and be doomed to reversal by a court:

> In fact, this NPRM operates at a much more fundamental level than the two D.C. Circuit cases discussed above. If it moved directly to decision, the FCC would not simply be failing to give notice of its decision on a methodology or discount rate; it has carefully decided nothing at all about any CBA it may use, thus making it impossible for any commenter to comment directly on any single factor much less guess the exact parameter of every methodology, assumption or decision embodied in a CBA or the combination of decisions that make up a CBA. That is why swift judicial

[128] Wright, "Antitrust Provides a More Reasonable Framework for Net Neutrality," at 9.

> reversal would follow any attempt by the Commission to implement a cost-benefit analysis without a further round of notice and-comment that fulfills the requirements of the APA.[129]

Free Press, after noting that the executive order requiring that executive branch agencies conduct cost-benefit analyses does not apply to the FCC, makes a similar baseless claim about how the cost-benefit analysis proposal in the Notice gives no guidance about what the Commission plans to do:

> We can only conclude that the Notice's suggestion that the Commission engage in a formal cost-benefit analysis is not serious. The Notice contemplates no real standards for how it would be conducted, offers no metrics for how it would be evaluated, and gives the public no opportunity to independently evaluate how sound either the methodology or analysis would be.[130]

Contrary to these claims by pro-regulatory commenters, paragraph 106 of the Notice is clear in proposing that the FCC follow the same guidance in Section E of OMB Circular A-4,[131] which has been used by executive branch agencies since 2003, while inviting comments on whether that is appropriate or whether the Commission should modify its approach. The Free State Foundation has argued that the guidance used by executive branch agencies is entirely appropriate for the FCC to adopt.[132] Comments by INCOMPAS assert that the Commission must spell out "the exact parameter of every methodology, assumption or decision embodied in a CBA or the combination of decisions that make up a CBA."[133] And comments by INCOMPAS and Free Press

[129] Comments of INCOMPAS, at 89.
[130] Comments of Free Press, at 63-64.
[131] Office of Management and Budget, "OMB Circular No. A-4: Regulatory Analysis" (September 3, 2003), available at https://obamawhitehouse.archives.gov/omb/memoranda_m03-21/.
[132] *See* Theodore R. Bolema, "An Assessment of the FCC's Proposal to Conduct a Cost-Benefit Analysis," *Perspectives from FSF Scholars*, Vol. 12, No. 23 (July 14, 2017), available at http://www.freestatefoundation.org/images/An_Assessment_of_the_FCC_s_Proposal_to_Conduct_a_Cost-Benefit_Analysis_071417.pdf.
[133] Comments of INCOMPAS, at 89.

basically argue that the Commission can never perform a cost-benefit analysis. The Commission should not find such arguments persuasive.

B. Recent Court Decisions Are More Likely to Strike Down Agency Actions That Do Not Consider Costs Than Agency Actions Based on Cost-Benefit Analyses

Contrary to the arguments by INCOMPAS and Free Press, independent agencies are more likely to face legal challenges for not performing an appropriate economic analysis. Courts have generally looked favorably on cost-benefit analyses as an analytical tool that can assist in decisionmaking. The Securities and Exchange Commission had several rules reversed for not supporting its rulemaking with economic analysis.[134] These cases are described by FCC Chief Economist Jerry Ellig in his 2016 paper on the improvements in economic analysis at the SEC since it institutionalized the practice of performing cost-benefit analyses.[135]

Moreover, courts have recently struck down regulations by other agencies for not making use of economic analysis. In *Michigan v. EPA* (2015), the Supreme Court overturned an Environmental Protection Agency (EPA) regulation of hazardous air pollutants from power plants because the EPA failed to consider costs. In that case, the EPA conducted a regulatory impact analysis, which estimated costs of nearly $10 billion per year, but the EPA later said this economic analysis played no role in its decision.[136] Notably, the Supreme Court did not dictate in detail how the EPA must take costs into account, and based its decision on the agency completely ignoring costs.

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[134] *See Chamber of Commerce v. SEC*, 412 F.3d 133 (D.C. Cir. 2005); *American Equity v. SEC*, 572 F.3d. 923 (D.C. Cir. 2009); *Business Roundtable v. SEC*, 647 F.3d 1144 (D.C. Cir. 2011).
[135] Jerry Ellig. "Improvements in SEC Economic Analysis since Business Roundtable: A Structured Assessment." Mercatus Working Paper, Mercatus Center at George Mason University (December 2016), available at https://www.mercatus.org/system/files/mercatus-ellig-sec-business-roundtable-v1.pdf.
[136] *Michigan v. EPA*, 135 S. Ct. 2699 (2015).

Similarly, in *MetLife v. FSOC* (2016), the U.S. District Court for the District of Columbia overturned the decision by the Financial Stability Oversight Council to classify MetLife as a nonbank financial company subject to greater regulatory oversight. The Court held that the FSOC did not estimate the size of potential losses that financial distress could create for MetLife or resulting size of losses to other parties, so the regulator had no factual basis for determining that financial distress at MetLife would undermine the stability of the US financial system.[137]

Also significant is the fact that neither INCOMPAS nor Free Press provide any guidance whatsoever to the FCC on how to better perform a cost-benefit analysis. Thus, their comments can only be interpreted as opposing the Commission performing any cost-benefit analysis at all. The FCC should not be an "economics-free zone."[138] Instead the Commission should improve its use of economic analyses, including cost-benefit analysis, so that it can make better regulatory decisions.

VII. Conclusion

For the foregoing reasons, the FCC should adopt its proposal to reclassify all fixed and mobile broadband Internet access services as information services under Title I of the Communications Act, and not as telecommunications services under Title II. The Commission should rescind the public utility regulation it imposed in its *Title II Order*, re-establish a light-touch regulatory framework for broadband Internet access services, and return jurisdiction over broadband privacy to the FTC.

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[137] *MetLife v. FSOC*, 177 F. Supp.3d 219 (D.D.C. 2016).
[138] *See* Tim Brennan, "Is the Open Internet Order an "Economics-Free Zone?" *Perspectives from FSF Scholars*, Vol. 11, No. 22 (June 28, 2016), available at http://www.freestatefoundation.org/images/Is_the_Open_Internet_Order_an_Economics_Free_Zone_062816.pdf.

In adopting its Notice proposal to reclassify all broadband Internet access services as information services under Title I,[139] the Commission should clearly set forth that broadband Internet access services are jurisdictionally interstate, as recognized by prior Commission precedents.[140] The Commission should expressly reaffirm this consistent line of precedents and thereby alleviate potential new regulatory barriers or uncertainties that state or local governments might create. This would help ensure that the Commission's light-touch regulatory framework achieves its intended purpose in fostering innovation and investment in broadband network upgrades and deployments to unserved areas.

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[139] *See* Notice, at ¶ 55.
[140] *See* precedents cited in *Title II Order*, at ¶ 431, n. 1275. *See also* Comments of Comcast, at 78-81.