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Exhibit List

1. David S. Evans, Economic Analysis of the Impact of the Comcast/Time Warner Cable Transaction on Internet Access to Online Video Distributors, attached to Petition to Deny of Netflix, Inc., MB Docket No. 14-57 (Aug. 27, 2014)
2. David Sappington, Reply Declaration, attached to Reply Of DISH Network Corp., MB Docket No. 14-57 (Dec. 22, 2014)
3. Richard Schmalensee, Economic Analysis of the Impact of the Comcast/Time Warner Cable Transaction on Set-Top Box Competition and Video Programming Costs, attached to COMPTTEL’s Reply to Comcast’s Opposition to Petition to Deny, MB Docket No. 14-57 (Dec. 23, 2014)
4. David S. Evans, Economic Analysis of the Impact of the Comcast/Time Warner Cable Transaction on Internet Access to Online Video Distributors: Response to Opposition to Petitions to Deny and Response to Comments, attached to Reply of Netflix, Inc., MB Docket No. 14-57 (Dec. 23, 2014)

5. David S. Evans, White Paper: Contrary to Professor Carlton's Theory, Comcast Has a Strong Incentive to Engage in Vertical Foreclosure, attached to Ex Parte Letter of Netflix, Inc., MB Docket No. 14-57 (Mar. 18, 2015)
6. David S. Evans, Comcast's Acquisition of Time Warner Cable Would Result in an Economically Significant Increase in the Magnitude of Terminating Access Fees for Online Video Distributors, attached to Ex Parte Letter of Netflix, Inc., MB Docket No. 14-57 (Apr. 6, 2015)
7. Fiona Scott Morton, Public Interest Statement Concerning the Merger of Charter, Bright House, and Time Warner Cable, attached to Joint Application of Charter Communications, Inc. and Advance/Newhouse Partnership, MB Docket No. 15-149 (June 24, 2015)
8. David S. Evans, Economic Analysis of the Impact of the Proposed Merger of Charter, Time Warner Cable, and Bright House Networks on Broadband Entry and Competition, attached to Ex Parte Letter of INCOMPAS, MB Docket No. 15-149 (Jan. 15, 2016)

In the mid-20th century, the impact of communications networks was easy to understand: some limited number of devices like telephones had value only if connected to communications networks; they were “network-dependent.” Most other products and services, say newspapers and toasters, did not require consumers to use a telecommunications network to make full use of their purchases; they were “network-independent.” With the advent of the commercial Internet and broadband, information-centric services increasingly moved from being network-independent to network-dependent. Today, one-in-four Americans get their news online and only two-in-ten read a printed newspaper.¹ And online video providers (“OVDs”) have untethered the public from the linear grid of cable television, where consumers increasingly expect to engage content on their terms—when and where they want—rather than by cable television programming executives. This disruption to the cable television model has been a key component in the development of existing open Internet rules and merger reviews involving large telecommunications companies.

But the next phase is already underway. Sometimes labeled the “Internet of Things,” traditional forms of services, like real estate brokerage, and traditional devices, like automobiles or alarm systems, will increasingly depend on the use of broadband networks. Indeed, businesses across the economy are relying more on reaching consumers via the Internet—for example, through their own websites, social media, and apps. Similarly, small businesses and consumers are using cloud computing more than ever before. Accordingly,

¹ Amy Mitchell et al., *The Modern News Consumer*, Pew Research Center (July 7, 2016), http://assets.pewresearch.org/wp-content/uploads/sites/13/2016/07/08140120/PJ_2016.07.07_Modern-News-Consumer_FINAL.pdf.

the growing network-dependence boosts the bargaining position of broadband providers, which also increasingly are creating new products that compete in this emerging ecosystem. Common sense tells us that this creates opportunities for broadband providers to distort competition in their favor.

The Commission need not rely only on common sense but on the last decade's worth of investigation and economic analyses in this ecosystem to confirm the proposition that broadband providers have both the motivation and the power to use their increased bargaining position to distort competition in these adjacent markets. Preservation of consumer choice and competition, including the innovation that sparks new competition, requires that the Federal Communications Commission maintain the open Internet rules now in effect and maintain its oversight of interconnection.

The Commission need look no further than the natural experiment that is the history of cable television. With the rise of cable networks in the 1980s, the companies—corporate predecessors of the biggest cable companies and ISPs today—relied on their gatekeeper status to demand a financial interest in programmers seeking carriage on cable systems.²

That dynamic resulted in Congress taking action to make it unlawful for cable companies to demand a financial interest in a programmer's company for such programmer to receive carriage. This same dynamic exists with telecommunications companies that provide the physical platform for the distribution of content on the Internet. As the CEO of SBC said in 2005:

² *The Power of the Cable Trust*, FAIR (Oct. 1, 1995), <http://fair.org/extra/the-power-of-the-cable-trust/> (describing cable operator control over network programming).

How do you think they're going to get to customers? Through a broadband pipe. Cable companies have them. We have them. Now what they would like to do is use my pipes free, but I ain't going to let them do that because we have spent this capital and we have to have a return on it. So there's going to have to be some mechanism for these people who use these pipes to pay for the portion they're using. Why should they be allowed to use my pipes? The Internet can't be free in that sense, because we and the cable companies have made an investment and for a Google or Yahoo! or Vonage or anybody to expect to use these pipes for free is nuts!³

The repeal of the protections of an open Internet, either directly or through the invalidation of court-approved bases for the exercise of jurisdiction, would be to invite the cableization of the Internet and to ignore all that has been learned about the motivation and power of gatekeeper networks. In a time when more and more of the U.S. economy is network-dependent, that harm would spread to more and more of the economy.

From its conception, the Internet's architecture was designed to be open—a design choice based on the concept that, among other things, the telecommunications providers that control the lower layers of the Internet protocol stack (i.e., network access layer and transport layer) should not interfere with or alter the higher layers of the stack (i.e., application and content layers).

To date, the Commission has long recognized that competition is threatened where communications networks wield such gatekeeper power. And it has acted accordingly, overriding network providers' objections so that devices (e.g., fax machines, modems) could be connected to communications networks. It then unleashed the advent of data

³ *Online Extra: At SBC, It's All About "Scale and Scope,"* Bloomberg Bus. Wk., (Nov. 7, 2005), <https://www.bloomberg.com/news/articles/2005-11-06/online-extra-at-sbc-its-all-about-scale-and-scope>.

services that directly led to the plethora of content and services available today from the Internet over broadband connections to consumers' homes.

Yet the end of the current open Internet rules would mean that, while it was illegal in the 1950s for the communications network to bar a person from attaching a small piece of plastic to a telephone to hear better, 60 years later the corporate successor of that same network could decide exactly what content—political and commercial—that same person's great-granddaughter would be able to see or read or hear.

At the end of the day, Internet freedom must protect the Internet. The residential connections sold by broadband providers link to the Internet. However, the Notice of Proposed Rulemaking (“NPRM”) conflates the services and products available “on the Internet” from the broadband pathways people take to reach those services and products. But the distinction is simple. When Jack and Jill went up the hill to fetch a pail of water, they understood the difference between the pail and the water. The pail was a mechanism of transport. The water was the stuff to be transported (unsuccessfully as it turned out) from the top of the hill to the bottom. Broadband networks are the means of transport pure and simple, and their function is to move information from one place to another “without change in the form or content.”⁴ When a consumer moves into a new home and purchases Internet access, she subscribes to a broadband service plan based on what service is available (and the availability of service is severely limited) and what connection speeds are available that fit her needs and budget. When she has her broadband connection, she

⁴ 47 U.S.C. § 153(50) (defining telecommunications as the “transmission, between or among points specified by the user, of information of the user’s choosing, without change in the form or content of the information as sent or received”).

goes to a site on the World Wide Web to read a newspaper; we understand that the broadband provider is not the newspaper publisher.⁵ Rather, she enjoys the world of content, services, e-commerce and communications through applications like social media, which have evolved and competed free from gatekeeper control. This is what consumers expect.

And it is what the American economy requires. 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. The threat in America today is for the future without the protections that enable an open Internet as more consumers rely upon it than ever before, and as more of our economy depends upon it. It is the statutory duty of the Commission to protect all users of the Internet, from garage-based start-ups to long-established business that sit on Main Street, and the consumers who access them. It can best do so by maintaining the framework adopted in 2015. Should Congress choose to update the Communications Act to address these issues, INCOMPAS stands ready to assist in such efforts.

⁵ Of course, if a broadband provider also owns content, the operation of that content business is entirely free from the reach of the current open Internet rules.

II. BROADBAND PROVIDERS HOLD THE POWER, INCENTIVES, AND TECHNICAL AND ECONOMIC ABILITY TO CURB COMPETITION AND HARM CONSUMERS THROUGH THEIR CONTROL OF RESIDENTIAL BROADBAND CONNECTIONS⁶

Of late, it has become fashionable in some circles to suggest that the *2015 Open Internet Order* lacked economic underpinnings.⁷ Nothing could be further from the facts—the *2015 Open Internet Order* itself contains 16 pages of careful, economic reasoning. But even more importantly, the critical principles underpinning the foundation of the Commission’s past role in ensuring an open Internet have been separately endorsed by the Commission itself, for example in recent investigations of transactions, by the Department of Justice (“DOJ”), also in recent investigations of transactions, and by the United States Court of Appeals for the District of Columbia in a series of cases. And those conclusions are supported by the extensive record created in past proceedings before the Commission, by expert economic analysis, and just as importantly, internal corporate documents from the files of broadband providers themselves.⁸

⁶ Our primary focus is residential broadband because consumers have the least competition for this service as we discuss herein.

⁷ See Restoring Internet Freedom, *Notice of Proposed Rulemaking*, 32 FCC Rcd. 4434, 4460 ¶ 76 (2017) (“*NPRM*”) (alleging that the *2015 Open Internet Order* enacted bright line rules “despite virtually no quantifiable evidence of consumer harm”). *But see Verizon v. FCC*, 623 F.3d 623, 644-45 (D.C. Cir. 2014) (holding that the “[Commission’s] conclusion finds ample support in the economic literature on which the Commission relied.”); Dwayne Winseck & Jefferson D. Pooley, *A Curious Tale of Economics and Common Carriage (Net Neutrality) at the FCC: A Reply to Faulhaber, Singer, and Urschel*, 11 Int’l J. of Commc’n 2702, 2704 (2017) (“The . . . core claim that the FCC has ‘abandoned the dismal science’ . . . does not hold water. We show that the record was stuffed full with the contributions of economists.”).

⁸ Therefore, concurrent with the filing of these comments, we are filing a motion requesting that the Commission incorporate portions of the records of those proceedings into this docket and we are attaching as exhibits redacted versions of economic studies cited herein.

The harms posed by large broadband providers are real and tangible. As the D.C. Circuit concluded, “the threat that broadband providers would utilize their gatekeeper ability to restrict edge-provider traffic is not, as the Commission put it, ‘merely theoretical.’”⁹ Through its review of a series of proposed mergers of the country’s largest broadband providers, the Commission has a unique insight into the incentives and abilities of such companies to violate open Internet principles. Before undertaking the 2014 open Internet rulemaking, the Commission already had reviewed an extensive record in the Comcast-NBCU merger. Because of the harms to competition posed by the merger, the Commission adopted several open Internet principles as conditions to approving the merger, which it then referenced in the *2015 Open Internet Order*.¹⁰ The major factual findings underpinning the *Open Internet Order* were twice confirmed by the D.C. Circuit.¹¹

⁹ *Verizon*, 740 F.3d at 648; *see also id.* at 646 (“Although Verizon dismisses the Commission’s assertions regarding broadband providers’ incentives as ‘pure speculation,’ those assertions are, at the very least, speculation based firmly in common sense and economic reality.”).

¹⁰ *See Applications of Comcast Corp., General Electric Corp. and NBC Universal, Inc. for Consent to Assign Licenses and Transfer Control of Licensee, Memorandum Opinion and Order*, 26 FCC Rcd. 4238, 4275 ¶ 94 (2011) (“*Comcast/NBCU Order*”) (“[N]either Comcast nor Comcast-NBCU shall prioritize affiliated Internet content over unaffiliated Internet content.”); *Protecting and Promoting the Open Internet, Report and Order On Remand, Declaratory Ruling, and Order*, 30 FCC Rcd. 5601, 5620 ¶ 65 (2015) (“*2015 Open Internet Order*”) (noting that approval of the SBC/AT&T, Verizon/MCI, and Comcast/NBCU mergers were all conditioned on compliance with the Commission’s 2005 *Internet Policy Statement*), *aff’d sub nom. United States Telecom Ass’n v. FCC*, 825 F.3d 674 (D.C. Cir. 2016). As the Open Internet Order was in effect when the AT&T/DirecTV and Charter/TWC mergers were approved, the Commission did not need to impose its requirements as a merger condition. *See Applications of Charter Communications, Inc., Time Warner Cable, Inc. and Advance/Newhouse Partnership For Consent to Assign or Transfer Control of Licenses and Authorizations, Memorandum Opinion and Order*, 31 FCC Rcd. 6327, 6374 ¶ 139 (2016) (“*Charter/TWC Order*”) (“Because the 2015 Open Internet Order already governs the Applicants, we give no weight to the Applicants’ commitment to follow it.”).

¹¹ *See Verizon*, 740 F.3d at 623; *U.S. Telecom Ass’n v. FCC*, 825 F.3d 674 (D.C. Cir. 2016).

The NPRM does nothing to seriously contest those findings. Since 2015, the harm to competition posed by large broadband providers has been further confirmed by both the Commission and the DOJ's review of AT&T's merger with DIRECTV, Comcast's failed merger with Time Warner Cable, and Charter's merger with Time Warner Cable and Bright House Networks. As explained below, the Commission and DOJ made their findings based on an extensive review of the evidence, including from internal statements of the merging companies themselves, making clear the threat to innovation and competition absent the open Internet rules. There are no changes that have occurred since the issuance of the *2015 Open Internet Order* that would justify contrary results two years later.

In fact, the notion that the Commission should abdicate its role in ensuring that the Internet remains open is a radical departure from precedent and from a simple, but enduring, principle: control of communications networks should not be used to limit competition in adjacent markets that are dependent upon the use of those networks. That is true for a simple piece of plastic attached to an old-style telephone to help screen out background noise,¹² to the Carterfone device that connected a two-way radio to the phone system,¹³ to the modems that made burbling noises as they connected telephones to data networks at 56 kilobits per second in the 1990s, to the early online services themselves, which rode atop the common-carrier platform and were free to reach consumers without having to strike separate deals with the incumbent telephone companies.

¹² *Hush-A-Phone Corp. v. United States*, 238 F.2d 266, 268 (D.C. Cir. 1956).

¹³ Use of the Carterfone Device in Message Toll Telephone Services; Thomas F. Carter and Carter Electronics Corp., Dallas, Tex., v. American Telephone and Telegraph Co., Associated Bell System Companies, Southwestern Bell Telephone Co., and General Telephone Co. of the Southwest, *Decision*, 13 FCC 2d 420 (1968), *recons. denied*, 14 FCC 2d 571 (1968) ("*Carterfone*").

The principle has been endorsed over and over and over again by the Commission. DSL, the first “high speed” broadband, was regulated as a common-carrier service during the decade when investment in communications networks was at its peak.¹⁴ And even when the Commission decided not to use Title II as the basis for regulating cable broadband service, it was careful to emphasize its continuing power to keep the Internet open.¹⁵ Thus, when the Commission on a bipartisan basis adopted its 2005 *Internet Policy Statement*, it emphasized that it would exercise authority to maintain competition and to free consumers to use their broadband connections in the lawful manner of their choosing.¹⁶ And it has done so repeatedly.¹⁷

The history of Commission vigilance is important for three reasons. First, it establishes a long line of precedent that should not be ignored; at least not in conformance with the strictures of the Administrative Procedure Act. Second, it demonstrates, along with DOJ action and independent analysis, the undisputed factual basis for a simple proposition: that companies with gatekeeper power will be tempted and will be able to

¹⁴ Deployment of Wireline Servs. Offering Advanced Telecomms. Capability, *Memorandum Opinion and Notice of Proposed Rulemaking*, 13 FCC Rcd. 24012, 24030–31 ¶¶ 36–37 (1998); see also Elise A. Couper et al., *Boom and Bust in Telecommunications*, 89 Fed. Res. Bank of Richmond Econ. Q. 1 (2003).

¹⁵ Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, *Declaratory Ruling and Notice of Proposed Rulemaking*, 17 FCC Rcd. 4798, 4801-02 ¶¶ 4-6 (2002) (“*Cable Modem Order*”), *aff’d in part and vacated in part by Nat’l Cable & Telecommunications Ass’n v. Brand X Internet Servs.*, 545 U.S. 967 (2005).

¹⁶ Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, *Policy Statement*, 20 FCC Rcd. 14986 (2005) (“*Internet Policy Statement*”). The Commission adopted this framework at the same time it reclassified wireline broadband from a telecommunications service to an information service and also moved away from requiring incumbent telecommunications companies from selling their broadband transmission as a separate service to competitors to offer competing Internet access service.

¹⁷ *Comcast v. FCC*, 600 F.3d 642 (D.C. Cir. 2010); *Verizon*, 740 F.3d at 623.

extract tolls and otherwise limit the ability of consumers to access other services that are dependent on those networks. Third, it explains a simple outcome that seems to bedevil the Commission at the moment: why there are not more examples of broadband providers engaged in egregious activity to limit competition and consumer choice. But the explanation is simple. It's the dog that did not bark. The dog in the Sherlock Holmes mystery provided a critical clue when it did not bark because it knew who was walking through the house at night. So too, the broadband providers have not "barked" more because they have known that the Commission stood vigilant to guard against the dangers described forcefully in the 2005 Policy Statement. Consider for example the history of the last decade:

- *The Internet Policy Statement*¹⁸
- *2005 Wireline Broadband Order*¹⁹
- Comcast *BitTorrent Order* in effect from 2008 to 2010²⁰

¹⁸ *Internet Policy Statement*, 20 FCC Rcd. at 14986.

¹⁹ Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities, *Report and Order and Notice of Proposed Rulemaking*, 20 FCC Rcd. 14853, 14855 ¶ 1, 14904 ¶ 96 (2005) ("*Wireline Broadband Order*") (establishing "a new regulatory framework for broadband Internet access services offered by wireline facilities-based providers" and warning that "[s]hould we see evidence that providers of telecommunications for Internet access or IP-enabled services are violating these principles, we will not hesitate to take action to address that conduct."), *petitions for review denied sub nom. Time Warner Telecom, Inc. v. FCC*, 507 F.3d 205 (3d Cir. 2007).

²⁰ Formal Complaint of Free Press and Public Knowledge Against Comcast Corp., Broadband Industry Practices Petition of Free Press et al. for Declaratory Ruling that Degrading an Internet Application Violates the FCC's Internet Policy Statement and does not Meet an Exception for "Reasonable Network Management," *Memorandum Opinion and Order*, 23 FCC Rcd. 13028, 13034 ¶ 13 (2008) ("*BitTorrent Order*") ("In the *Internet Policy Statement*, the Commission recognized its responsibility for overseeing and enforcing the 'national Internet policy' Congress had established . . . Noting that the essence of the federal policy is to 'encourage broadband deployment and preserve and promote the open and

- 2010 open Internet rules in effect from 2011 to 2014²¹
- 2015 open Internet rules in effect from 2015 to the present²²
- There were also additional company-specific supplementary remedies imposed as conditions in the following mergers:
 - SBC/AT&T²³
 - Verizon/MCI²⁴
 - AT&T/BellSouth²⁵
 - Comcast/NBCU²⁶

interconnected nature of the public Internet,’ the Commission clarified the contours of this policy . . . the Commission instructed providers of broadband Internet access services that ‘consumers are entitled to run applications and use services of their choice’ and ‘to access the lawful Internet content of their choice,’ subject to ‘reasonable network management’ practices. We stated our understanding of our ‘duty to preserve and promote the vibrant and open character of the Internet as the telecommunications marketplace enters the broadband age.’ Thus, the Commission committed to incorporating the principles set forth in the *Internet Policy Statement* ‘into its ongoing policymaking activities.’”), *vacated by Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010).

²¹ Preserving the Open Internet, *Report and Order*, 25 FCC Rcd. 17905 (2010) (“*2010 Open Internet Order*”), *aff’d in part and vacated in part, Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014).

²² *2015 Open Internet Order*, 30 FCC Rcd. at 5690-91 ¶ 200 nn.504-05.

²³ SBC Communications, Inc. & AT&T Corp. Applications for Approval of Transfer of Control, *Memorandum Opinion and Order*, 20 FCC Rcd. 18290, 18392 ¶ 211, Appendix F (2005) (conditioning merger approval on compliance with the Commission’s *Internet Policy Statement* for two years from consummation of the transaction).

²⁴ Verizon Communications Inc. and MCI, Inc. Applications for Approval of Transfer of Control, *Memorandum Opinion and Order*, 20 FCC Rcd. 18433, 18537 ¶ 221, Appendix G (2005) (conditioning merger approval on compliance with the Commission’s *Internet Policy Statement* for two years from consummation of the transaction).

²⁵ AT&T Inc. & BellSouth Corporation Application for Transfer of Control, *Memorandum Opinion and Order*, 22 FCC Rcd. 5662, 5663 ¶ 2 (2007) (imposing the applicant’s commitment to “maintain a neutral network and neutral routing in [the merged entity’s] wireline broadband Internet access service” as a condition of the merger).

- AT&T/DTV²⁷
- Charter/TWC (interconnection)²⁸

Just as the Holmsian hound would have barked at a stranger, mountains of evidence demonstrate that the broadband providers have the incentive and ability, that is to say, the motivation and the power, to limit competition in the absence of established rules. A decision to ignore this evidence would constitute reversible error.

A. Broadband Providers Have the Incentives and Abilities to Harm Competition and Consumers.

When the *Verizon* court examined the record compiled in the 2010 open Internet proceeding, it concluded that “nothing in the record gives us any reason to doubt the Commission’s determination that broadband providers may be motivated to discriminate against and among edge providers.”²⁹ Since that time, both the FCC and DOJ have examined extensive record evidence in recent telecom merger proceedings involving the country’s largest broadband providers.³⁰ Analysis of the millions of internal documents submitted by

²⁶ *Comcast/NBCU Order*, 26 FCC Rcd. at 4275 ¶ 94 n.213.

²⁷ Applications of AT&T Inc. & DIRECTV For Consent to Assign or Transfer Control of Licenses & Authorizations, *Memorandum Opinion and Order*, 30 FCC Rcd. 9131, 9211 ¶ 213 (2015) (“*AT&T/DTV Order*”) (“[W]e impose as a condition of this transaction conditions that prohibit certain discriminatory usage-based allowances.”).

²⁸ *Charter/TWC Order*, 31 FCC Rcd. at 6374 ¶ 93, Condition III (finding that the Charter-TWC merger would give the new entity sufficient market and bargaining power in the interconnection market to cause harm to rival OVDs and imposing certain conditions to prevent that, including a mandatory settlement-free interconnection condition and an interconnection disclosure requirement).

²⁹ *Verizon*, 740 F. 3d at 645.

³⁰ There can be little doubt about the voluminous nature of the record in those proceedings. See, e.g., *AT&T and DirecTV*, MB Docket 14-90, <https://www.fcc.gov/transaction/att-directv> (listing the record evidence submitted during the Commission’s merger review) (last visited July 6, 2017); *Justice Department Will Not Challenge AT&T’s Acquisition of DirecTV*,

AT&T, Charter, Comcast, Time Warner Cable, and other parties in those proceedings demonstrate the incentives and tactics that can be used to thwart competition including and particularly OVD rivals.³¹ Nor is there any reason to disregard the evidence and the conclusions generated through these merger reviews. First, the Commission made direct findings regarding three of the four biggest broadband providers and consistently noted

Department of Justice (July 21, 2015), <https://www.justice.gov/opa/pr/justice-department-will-not-challenge-atts-acquisition-directv> (highlighting the “extensive investigation” into the proposed transaction); *Charter – Time Warner Cable – Bright House Networks*, MB Docket 15-149, <https://www.fcc.gov/transaction/charter-twc-bhn> (listing the record evidence submitted during the Commission’s merger review) (last visited July 6, 2017); *Justice Department Allows Charter’s Acquisition of Time Warner Cable and Bright House Networks to Proceed with Conditions*, Department of Justice (Apr. 25, 2016), <https://www.justice.gov/opa/pr/justice-department-allows-charter-s-acquisition-time-warner-cable-and-bright-house-networks> (noting that the department “examined whether the merger would allow New Charter to become an unavoidable gatekeeper for internet-based services, including OVDs, that rely on a broadband connection to reach consumers.”); *Comcast – Time Warner Cable*, MB Docket 14-57, <https://www.fcc.gov/proceedings-actions/mergers-transactions/comcast-time-warner-cable-mb-docket-14-57> (listing the record evidence submitted during the Commission’s merger review) (last visited July 6, 2017); *Justice Department Allows Comcast-NBCU Joint Venture to Proceed with Conditions*, Department of Justice (Jan. 18, 2011), <https://www.justice.gov/opa/pr/justice-department-allows-comcast-nbcu-joint-venture-proceed-conditions> (noting the extensive review of the transaction and coordination between the FCC and DOJ).

³¹ See Complaint ¶ 27, *United States v. Charter Commc’ns, Inc.*, Case No. 1:16-cv-00759 (D.D.C. April 25, 2016), ECF No. 1. (“*DOJ Charter/TWC Complaint*”) (“In numerous internal documents, Defendants show a keen awareness of the competitive threat that OVDs pose.”); Complaint ¶ 36, *United States v. Comcast Corp.*, Case No. 1:11-cv-00106 (D.D.C. Jan. 18, 2011) (“*DOJ Comcast/NBCU Complaint*”) (“Comcast and other MVPDs recognize the impact of OVDs. Their documents consistently portray the emergence of OVDs as a significant competitive threat.”). The FCC defines an OVD as “an entity that distributes video programming (1) by means of the Internet or other Internet Protocol (IP)-based transmission path; (2) not as a component of an MVPD subscription or other managed video service; and (3) not solely to customers of a broadband Internet access service owned or operated by the entity or its affiliates.” Annual Assessment of the Status of Competition in the Market for Video Programming, *Eighteenth Report*, 32 FCC Rcd. 568, 569-70 ¶ 1 n.4 (2017) (“*Eighteenth Report*”).

the continuing importance of Open Internet protections.³² Second, the core economic conclusions are not merger-specific. Indeed, the record is consistent and clear—the FCC, DOJ and the D.C. Circuit agree that broadband providers have the ability and incentive to harm competition:

- “The Commission has recognized the incentive of Internet access providers such as Charter to discriminate against unaffiliated OVDs.”³³
- “[E]dge providers such as OVDs represent a common threat to . . . the entire cable industry.”³⁴
- “Some MVPDs have sought to restrain nascent OVD competition directly by exercising their leverage over video programmers to restrict the programmers’ ability to license content to OVDs.”³⁵

The record developed in formulating the recent net neutrality orders was consistent with these findings and confirmed twice by the D.C. Circuit. In *Verizon*, the court found that the FCC had laid out a substantial and reasoned factual basis for the 2010 open Internet rules: “[the Commission’s] justification for the specific rules at issue here—that they will preserve and facilitate the ‘virtuous circle’ of innovation that has driven the explosive growth of the

³² See *Charter/TWC Order*, 31 FCC Rcd. at 6392 ¶ 139; *AT&T/DTV Order* at ¶ 217; *Comcast/NBUC Order* at ¶ 61.

³³ *Charter/TWC Order*, 31 FCC Rcd. at 6343 n.103 (collecting sources).

³⁴ *Id.* at 6361 ¶ 71.

³⁵ *DOJ Charter/TWC Complaint* ¶ 4 (noting that some MVPDs have sought clauses in their programming contracts that prohibit programmers from distributing content online, or have placed significant restrictions on online distribution). As explained below, the presence of these additional tools simply reinforces the conclusion that broadband providers can take a series of actions, including with regard to the broadband connections they deliver, to limit competitive threats that rely upon broadband access.

Internet—is reasonable and supported by substantial evidence.”³⁶ In the subsequent *USTA* case, the court incorporated in full its earlier findings: “if there were any lingering uncertainty about the import of our decision in *Verizon*, we fully adopt here our findings and analysis in *Verizon* . . . including our conclusion that the Commission’s virtuous cycle theory provides reasonable grounds for the exercise of that authority.”³⁷

1. *Incentives: Broadband providers have the incentive to discriminate against edge providers.*

Through its examination of the record in the merger proceedings, the Commission has specifically identified broadband providers’ incentives to harm competition by disadvantaging edge providers.³⁸ The most striking example, on which a great deal of evidence exists, concerns the rise of streaming video. Since the beginning of 2015 alone, 42 OTT services have launched in the United States, more than all the prior years from 2005 to 2014 combined.³⁹ Those include:

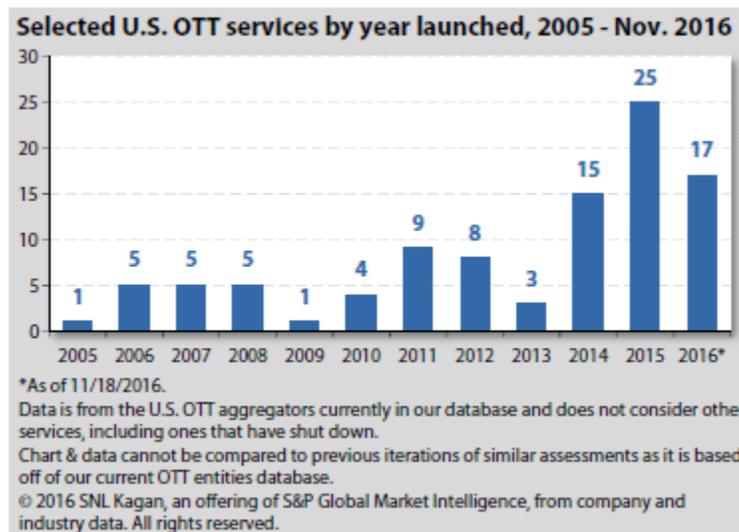
³⁶ *Verizon*, 740 F.3d at 628.

³⁷ *U.S. Telecom Ass’n*, 825 F.3d at 734.

³⁸ *Verizon*, 740 F.3d at 646 (“The Commission explained that the resultant harms to innovation and demand will largely constitute ‘negative externalities’: any given broadband provider will receive the benefits of fees . . . but [is] unlikely to fully account for the detrimental impact on edge providers’ ability and incentive to innovate and invest.”) (quoting *2010 Open Internet Order*, 25 FCC Rcd. at 17919-20 ¶ 25 & n.68); see also Nicholas Hill, Nancy L. Rose, and Tor Winston, *Economics at the Antitrust Division 2014-2015*, 47 R. Indus. Org. 425, 429 (2015) (“*Rose Study*”) (“Online video distributors . . . represent a significant potential threat to traditional video providers.”).

³⁹ Anthony Ha, *Hulu Officially Launches its Live TV Service at \$39.99 per Month*, TechCrunch (May 3, 2017), <https://techcrunch.com/2017/05/03/hulu-with-live-tv/> (describing launch of Hulu with Live TV); Valentina Palladino, *YouTube TV Goes Live Today in Five US Cities, Gears up to Add More Networks*, Ars Technica (Apr. 5, 2017), <https://arstechnica.com/business/2017/04/youtube-tv-goes-live-today-in-five-us-cities-gears-up-to-add-more-networks/>; Davey Alba, *Google Takes on Cable with ‘YouTube TV’—40 Channels for \$35*, Wired (Feb. 28, 2017), <https://www.wired.com/2017/02/youtube-tv-skinny-bundle/>

- SlingTV (launched Jan. 2015)
- Sony Vue (launched Mar. 2015)
- HBO NOW (launched Apr. 2015)
- Showtime Anytime (launched July 2015)
- Verizon Go90 (launched Oct. 2015)
- Starz (launched Apr. 2016)
- Vudu Movies On US (launched Oct. 2016)
- DIRECTV NOW (launched Nov. 2016)
- YouTube TV (launched Apr. 2017)
- Hulu Live (launched May 2017)



(describing launch of YouTube TV); Ali Choukeir, *Another Dynamic Year for US OTT Services, VSPs*, SNL Kagan, a Media Research Group within the TMT Offering of S&P Global Market Intelligence, 2 (Dec. 7, 2016) (describing launch dates for CBS All Access, HBO Now, Showtime, Verizon Go90, FandangoNow, Starz, and Vudu Movies on Us); Press Release, *The Revolution is Here: AT&T Offers 3 Ways to Stream Premium Video Content*, AT&T Newsroom (Nov. 28, 2016), http://about.att.com/story/att_offers_three_ways_to_stream_premium_video_content.html (describing launch of DIRECTV NOW); Press Release, *PlayStation™ Vue Internet-Based Live TV Service Expands Nationwide; Prices in New Markets Starts at \$29.99*, Sony (Mar. 14, 2016), <https://www.playstation.com/en-us/corporate/press-releases/2016/playstation-vue-internet-based-live-tv-service-expands-nationwide-prices-in-new-markets-start-at-2999/> (describing Vue expansion to more U.S. locations and popular content in sports, movies, and TV channels); Press Release, *CBS All Access Expands Live Coverage to 75% of the Country*, CBS (July 16, 2015), <https://www.cbcorporation.com/2015/07/cbs-all-access-expands-live-coverage-to-75-of-the-country/> (describing expansion of live local-feed services); Press Release, *PlayStation™ Vue Launches Today, Revolutionizing Television Viewing*, Sony (Mar. 18, 2015), <https://www.playstation.com/en-us/corporate/press-releases/2015/playstation-vue-launches-today-revolutionizing-television-viewing/> (describing launch of Vue); Mike Snider, *Sling TV looks to liven up streaming video party*, USA Today (Jan. 26, 2015), <https://www.usatoday.com/story/tech/2015/01/26/sling-tv-review/22330315/> (describing launch of Sling TV).

Of course, the largest facilities-based broadband providers are also incumbent video providers.⁴⁰ That broadband providers have these dual lines of business shifts their incentives toward maintaining the profit margins of their own video distribution over that of rivals, and particularly OVDs. For example, the Commission has repeatedly recognized that “entities offering both MVPD and ISP services may have incentives to use data allowances or exempt affiliated services from data limits in order to benefit their co-owned MVPD service.”⁴¹

The economic argument has been made that broadband providers will welcome new forms of content on the ground that their existence makes broadband connections more valuable. Indeed, broadband providers’ economists argue that broadband providers view online content as a complement that will drive consumption of broadband.⁴² But the

⁴⁰ See *Eighteenth Report*, 32 FCC Rcd. at 574 ¶ 17 (“[M]ost of today’s MVPDs also offer Internet and phone services as core elements of their business models.”).

⁴¹ *Id.* at 629 ¶ 151; see also *2015 Open Internet Order*, 30 FCC Rcd. at 5662 ¶ 140 (“[B]roadband providers have incentives to interfere with and disadvantage the operation of third-party Internet-based services that compete with the providers’ own services.”); *2010 Open Internet Order*, 25 FCC Rcd. at 17916 ¶ 22 (“[B]roadband providers have incentives to interfere with the operation of third-party Internet-based services that compete with the providers’ revenue-generating telephony and/or pay-television services.”); Richard Schmalensee, *Economic Analysis of the Impact of the Comcast/Time Warner Cable Transaction on Set-Top Box Competition and Video Programming Costs*, attached to COMPTTEL’s Reply to Comcast’s Opposition to Petition to Deny, MB Docket No. 14-57, at 9 ¶ 19 (Dec. 23, 2014) (attached as Exh. 3) (“Given Comcast’s significant investment in its X1 platform, Comcast would be expected to encourage its subscribers to engage with the X1 platform rather than third-party STBs.”); *DOJ Charter/TWC Complaint* ¶ 28 (“Because of the threat OVDs pose to their video business, some MVPDs have an incentive to engage in tactics that would diminish OVDs’ ability to compete.”).

⁴² See, e.g., Fiona Scott Morton, *Public Interest Statement Concerning the Merger of Charter, Bright House, and Time Warner Cable*, attached to Joint Application of Charter Communications, Inc. and Advance/Newhouse Partnership, MB Docket No. 15-149, at 12 ¶ 37 (June 24, 2015) (attached as Exh. 7) (“New Charter will have an increased incentive and ability to promote OVDs and other edge providers in order to encourage usage that

evidence from DOJ and FCC reviews of recent transactions demonstrates the opposite—that broadband providers have the direct incentive to guard against competitive threats from network-dependent companies.⁴³ For example, the Commission found that Charter’s “increased broadband footprint and desire to protect its video profits” would increase Charter’s incentives to harm competition.⁴⁴ Specifically, “[b]ecause OVDs represent an increasingly competitive alternative to the Applicants’ video services, and Applicants control broadband networks that many consumers use to access OVD services . . . Charter would have an increased incentive to harm OVDs.”⁴⁵ Similarly, the Commission found that, “as a vertically integrated company, Comcast will have the incentive and ability to hinder competition from other OVDs.”⁴⁶ Because of these concerns, DOJ included a provision in its

expands subscribership to its broadband network. In addition, given that the merging parties are experiencing growth in broadband subscribers as video subscribers decline—and given that each firm’s profitability and future success depends far more on its broadband business than its video business—the combined firm will not have any incentive to take any action that harms the attractiveness of broadband to its consumers.”).

⁴³ Streaming video is simply the leading example. Broadband companies are also owners or have equity stakes in backbone providers and CDNs. *See, e.g.*, Applications of XO Holdings and Verizon Communications Inc. for Consent to Transfer Control of Licenses and Authorizations, *Memorandum and Order*, 31 FCC Rcd. 12501 (2016). And, as new industries come into being, broadband providers are fully capable of seeking ownership of or a financial interest in new companies as well.

⁴⁴ *Charter/TWC Order*, 31 FCC Rcd. at 6330 ¶ 7 (describing three main ways in which New Charter would be incentivized to harm competition: (1) by imposing data caps and usage-based pricing to make watching online video more expensive; (2) by raising interconnection prices on OVDs; and (3) by demanding contractual terms that would make it more difficult to license content for online distribution).

⁴⁵ *Id.* at 6340 ¶ 34, 6342-6343 ¶ 38.

⁴⁶ *Comcast/NBCU Order*, 26 FCC Rcd. at 4263 ¶ 61, 4272 ¶ 85 (“The record here is replete with e-mails from Comcast executives and internal Comcast documents showing that Comcast believes that OVDs pose a potential threat to its businesses, that Comcast is concerned about this potential threat, and that Comcast makes investments in reaction to it.”).

consent decree in the Comcast/NBCU merger barring the combined company from using its bargaining power with upstream content providers to disadvantage OVDs.⁴⁷ DOJ also included a requirement prohibiting Comcast from discriminating or retaliating against non-affiliated programmers.⁴⁸

As the Commission found in the AT&T/DIRECTV merger, “we disagree that the Applicants’ incentive to attract and retain broadband subscribers precludes any incentives to engage in conduct that hinders consumers’ access to unaffiliated OVDs.”⁴⁹ As such, the Commission imposed a condition on AT&T, preventing it from discriminating in favor of its own video programming services.⁵⁰

2. *Abilities: Broadband providers have well-known means with which to interfere with competition.*

Broadband providers have a wide toolkit from which to deploy anti-open Internet tactics.⁵¹ The Commission has found that “past instances of abuse indicate that broadband

⁴⁷ See *United States of America v. Comcast*, No. 1:11-cv-00106, 2011 WL 5402137, at *10-11 (D.D.C. Sept. 1, 2011) (“Defendants shall not enter into or enforce any agreement for Defendants’ carriage or retransmission on their MVPD of Video Programming from a local television station, Network Affiliate, Broadcast Network, or Cable Programmer under which Defendants forbid, limit, or create incentives to limit the local television station’s, Network Affiliate’s, Broadcast Network’s, or Cable Programmer’s provision of its Video Programming to one or more OVDs.”).

⁴⁸ *Comcast/NBCU Order*, 26 FCC Rcd. at 4440 ¶ 6 n.293.

⁴⁹ *AT&T/DTV Order*, 30 FCC Rcd. at 9207 ¶ 205.

⁵⁰ *Id.* at Appendix B ¶ IV.

⁵¹ *2015 Open Internet Order*, 30 FCC Rcd. at 5634 ¶ 85. While the NPRM states that the Order “only articulated four examples of actions Internet service providers arguably took to justify its adoption of the Internet conduct standard,” *NPRM*, 32 FCC Rcd. at 4452 ¶ 50, even if this were true, as the Order notes, “it is not surprising that, during a decade in which the Commission vowed to keep the Internet open, that Commission policy served as a deterrent to additional bad acts.” *2015 Open Internet Order*, 30 FCC Rcd. at 5628 ¶ 79 n.123.

providers have the technical ability to act on incentives to harm the open Internet.”⁵²

Broadband providers have the ability to engage in a range of tactics intended to harm independent content creators including:

- using restrictive contractual provisions in agreements with third-party programmers that would limit the ability of OVDs to obtain content;⁵³
- imposing costs on subscribers through their residential terms of service including data caps that effectively raise the cost of an OVD service;⁵⁴
- adversely treating on-net traffic (like degrading certain transmissions while favoring those of an affiliate);⁵⁵ and
- disadvantaging traffic exchange (through the terms of interconnection agreements and by allowing ports to congest without engaging in routine equipment upgrades).⁵⁶

⁵² *2015 Open Internet Order*, 30 FCC Rcd. at 5634 ¶ 85.

⁵³ *Charter/TWC Order*, 31 FCC Rcd. at 6389 ¶ 130 (“New Charter would have an increased incentive and ability to use interconnection practices to harm edge providers.”); *Verizon*, 740 F.3d at 646 (“The Commission also convincingly detailed how broadband providers’ position in the market gives them the economic power to restrict edge-provider traffic and charge for the services they furnish edge providers.”).

⁵⁴ See *Charter/TWC Order*, 31 FCC Rcd. at 6362 ¶ 74 (“New Charter may be more likely to use data caps or [usage-based pricing] to curb current and future OVD-consumption levels with the purpose of inhibiting or eliminating OVD competition.”); *AT&T/DTV Order*, 30 FCC Rcd. at 9205 ¶ 200 (“[T]he transaction may increase the Applicants’ incentive and ability to use data allowances to discriminate in favor of their own, affiliated online offerings.”).

⁵⁵ See *Comcast/NBCU Order*, 26 FCC Rcd. at 4275 ¶ 93 (discussing “the increased risk that Comcast will engage in blocking or discrimination when transmitting network traffic over its broadband service”).

⁵⁶ See *AT&T/DTV Order*, 30 FCC Rcd. at 9211-9212 ¶ 214 (describing Netflix’s dispute with AT&T over port congestion which resulted in “a significant detrimental effect on the ability of AT&T’s DSL and U-verse customers to access the Netflix OVD service”); *Charter/TWC Order*, 31 FCC Rcd. at 6380 ¶ 108 (Charter could “unilaterally impose increased

The D.C. Circuit agreed that “broadband providers have the technical and economic ability to impose such restrictions.”⁵⁷

The Commission further found broadband providers had the ability to use multiple techniques to discriminate against traffic including packet inspection, network or transport layer headers, and heuristics.⁵⁸ Such concerns show the importance of the *2015 Open Internet Order’s* general conduct rule to prevent competitive harm that results from limiting the ability of edge-companies to reach consumers and consumer to enjoy the fruits of new competition.

These tactics target the key inputs of an OVD: broadband distribution and programming. As such, the “the largest BIAS providers can solidify their position as gatekeepers between their subscribers and edge providers—and use this position in a two-sided market to their benefit.”⁵⁹ This is why the FCC has established the importance of protecting against anticompetitive data caps (in its order approving the AT&T/DIRECTV merger)⁶⁰ and protecting against unfair interconnection agreements (in its order

interconnection costs on edge providers, transit providers, and CDNs, ultimately raising costs to consumers.”). The Open Internet Order notes that “the Commission has looked at traffic exchange in the context of mergers and, sometimes imposed conditions on traffic exchange.” *2015 Open Internet Order*, 30 FCC Rcd. at 5693 n.518.

⁵⁷ *Verizon*, 740 F.3d at 646.

⁵⁸ See *2015 Open Internet Order*, 30 FCC Rcd. at 5634 ¶ 85.

⁵⁹ *Charter/TWC Order*, 31 FCC Rcd. at 6376-6377 ¶ 100; see also *Verizon*, 740 F.3d at 642-643 (“[T]he Commission made clear—and Verizon appears to recognize—that the Commission found broadband providers’ potential disruption of edge-provider traffic to be itself the sort of ‘barrier’ that has ‘the potential to stifle overall investment in Internet infrastructure,’ and could ‘limit competition in telecommunications markets.’”).

⁶⁰ See *AT&T/DTV Order*, 30 FCC Rcd. at 9211 ¶ 213 (imposing conditions that prohibit discriminatory usage-based allowances).

approving the Charter/TWC merger)⁶¹ while DOJ has moved to limit the use of unfair bargaining power in programming contracts. The DOJ consent decree with Charter and TWC prohibits the merged entity from “entering into or enforcing agreements that forbid, limit, or create incentives to limit the provision of video programming to OVDs.”⁶²

3. *Unfairly disadvantaging unaffiliated edge providers is a recognized problem that requires an effective solution.*

Disadvantaging unaffiliated content providers is a well-recognized form of action that can harm competition and consumers. It is easy to understand the context; imagine a broadband provider that owns or has a financial interest in the success of an upstream supplier of network-dependent goods or services. That might be an OVD service but it could just as easily be a real-estate app, an alarm service, a video game, an automobile, a networked thermostat company or a large retailer—any entity that would find advantage from shaping the ability of consumers to choose. Disadvantaging could take the form of foreclosure, but it could also involve more subtle economic forms of preference—for example the broadband provider could sell “exclusions” from data caps at unequal or effectively unequal prices. After all, the broadband provider that is “charging” its own affiliate is not really paying the full price of access⁶³ and thus gains an advantage by raising

⁶¹ See *Charter/TWC Order*, 31 FCC Rcd. at 6380 ¶ 108, 6389 ¶ 131.

⁶² Competitive Impact Statement, *United States v. Charter*, Case No. 1:16-cv-00759, at 10, 15 (“Numerous internal documents reflect the Defendants’ assessment that OVDs are growing quickly and pose a competitive threat to traditional forms of video programming distribution . . . some MVPDs have sought to restrain nascent OVD competition directly by exercising their leverage over video programmers to restrict video programmers’ ability to license content to OVDs.”).

⁶³ The Chairman of Comcast recognized this in the very similar context of retransmission-consent negotiations when he explained that an increase in Comcast’s fees paid to NBC represents only moving money from one pocket to another. See *Brian Roberts, Chairman*

its rivals' costs. That could increase the effective price of such a service and place a significant competitive constraint on a rival.

It is not surprising that, as *Verizon* recognized, “there appears little dispute that broadband providers have the technological ability to distinguish between and discriminate against certain types of Internet traffic.”⁶⁴ For example, the Commission found that because of its merger with NBCU, Comcast had increased incentives “to discriminate against unaffiliated content and distributors in its exercise of control over consumers’ broadband connections.”⁶⁵ To address these concerns, Comcast agreed to abide by the *2010 Open Internet Order* and agreed that in its provision of broadband service, it would not prioritize affiliated Internet content over unaffiliated Internet content.⁶⁶ These findings are grounded in solid economic analysis.⁶⁷

and CEO, Comcast Corp. at Morgan Stanley Technology, Media & Telecom Conference, Thomson Reuters, 9 (Feb. 27, 2017), http://files.shareholder.com/downloads/CMCSA/0x0x930451/7E1EA684-11C2-45F8-B871-3A8936E9A7DC/Comcast_at_Morgan_Stanley_TMT_Conference_Transcript.pdf (“Second, with affiliate fees, again retrans, we bought the company. It was at zero. CBS has more retrans fees I think than anybody and NBC was \$800 million last year. I think we said we’d be \$1.4 billion or so this year. That’s a really fast growing line item, not so great for cable operating part but again part of one company helps us look at it with a longer-term view.”). That is not true, of course, for the other MVPDs that pay for NBC content just as it is, and not for nonaffiliated edge companies that are asked to pay for better broadband access.

⁶⁴ *Verizon*, 740 F.3d at 646.

⁶⁵ *Comcast/NBCU Order*, 26 FCC Rcd. at 4253 ¶ 35, 4275 ¶ 93 (“The Commission previously has found it necessary to impose additional transaction-related safeguards as conditions for approving vertical transactions between MVPDs and video programming networks.”).

⁶⁶ *Comcast/NBCU Order*, 26 FCC Rcd. at 4275 ¶ 94; *see also Comcast/NBCU Order*, Appendix A, IV (prohibiting merged entity from engaging in discriminatory treatment in carriage contracts between MVPDs and OVDs and prohibiting contractual provisions designed to limit online distribution of Comcast/NBCU or other third party programming); Competitive Impact Statement, *United States v. Charter*, Case No. 1:16-cv-00759, at 15 (forbidding

B. Economics and Evidence Demonstrate Conclusively that Broadband Providers Have the Power Necessary to Cause Consumer Harm.

The conclusion that broadband providers have the motivation and power to harm competition and consumers rests firmly on two forms of traditional competition analysis. First, as we demonstrate in this section, incumbent broadband providers whose facilities are used for the consumption of long-form video have market power in the classic sense. That is to say, they are able to maintain supra-competitive pricing because of large market shares, limited competitive choices, high switching costs and high barriers to entry. As the Commission has recognized, market power leads to “higher prices and higher profits.”⁶⁸ That is true in both the local markets for the subscription to broadband internet access service and the national market upstream for the distribution of content. In the first market, the customers are residential consumers, in the second the customers are those companies that wish to deliver traffic to the broadband providers for their local delivery to subscribers.

Second, and in part because of the factors noted above, a long line of Commission and judicial precedent establishes that the incumbent broadband companies are, at a minimum, gatekeepers that can, by extracting payment from edge companies for traversing their networks, burden competition, raise rivals’ costs and harm consumers. That rests on the simple showing that consumers do not readily respond to the actions of broadband providers that threaten an open Internet.

restrictive licensing practices designed to limit competition between New Charter and OVDs).

⁶⁷ See *infra* Section II.B.2.

⁶⁸ *Charter/TWC Order*, 31 FCC Rcd. at 6347 ¶ 45.

1. *Broadband providers face very limited competition in the market for high-speed, wired residential broadband Internet access*

Broadband Internet Access Service (“BIAS”) is a service that “provides the capability to transmit data to and receive data from all substantially all Internet endpoints.”⁶⁹

Broadband providers promise to provide, and consumers expect, an open, high-speed connection to all or substantially all Internet endpoints.⁷⁰ A recent survey conducted by INCOMPAS found that two thirds of voters view Internet service as a necessity in their homes, no different from water or electrical power.⁷¹

Incumbent broadband providers have market power in local, high-speed broadband Internet access service markets. The geographic market is local because “it would be prohibitively expensive for a customer to move in order to avoid a small but significant and nontransitory increase in the price.”⁷²

There are virtually no competitive constraints on an incumbent broadband providers’ behavior due to consumers’ lack of choice in the local market for fixed high-

⁶⁹ *2015 Open Internet Order*, 30 FCC Rcd. at 5682 ¶ 187. Mobile wireless BIAS, BIAS provided via legacy DSL, and fixed satellite BIAS are not viable substitutes. *Charter/TWC Order*, 31 FCC Rcd. at 6348-52 ¶ 52-56.

⁷⁰ See, e.g., *#1 Internet Service Provider for Netflix Streaming*, Verizon, <http://www.verizon.com/about/our-company/1-internet-service-provider-netflix-streaming> (last visited July 6, 2017) (boasting about the ease of reaching and streaming Netflix content using Verizon FiOS Internet access); *Comcast Customers Will Enjoy Strong Net Neutrality Protections – Today and in the Future*, Comcast, <http://corporate.comcast.com/comcast-voices/comcast-customers-will-enjoy-strong-net-neutrality-protections-today-and-in-the-future> (last visited July 7, 2017) (“Customers expect that we will protect their right to enjoy an Open Internet.”).

⁷¹ See *Image Insights: Open Internet Survey, Key Findings*, INCOMPAS (July 2017) <http://www.incompas.org/files/IMGEInsights-Presentations-KeyFindings-1c.pdf>. The survey has a margin of error of 2.5%.

⁷² *Charter/TWC Order*, 31 FCC Rcd. at 6355 ¶ 61.

speed broadband Internet access.⁷³ Recent data show the extent of market domination. About 60% of Americans have either no choice or only one choice for a fixed high-speed connection of at least 25/3 Mbps. One in ten Americans lack access to 25/3 Mbps broadband.⁷⁴ Only 38% of Americans have more than once choice of providers.⁷⁵ Only 18% of fixed connections had a speed of 100 Mbps or greater as of June 2016.⁷⁶ The competitive choices are not evenly distributed: 39% of Americans in rural areas do not have access to 25/3 Mbps services.⁷⁷ It should not be a surprise given both the high switching costs

⁷³ *Rose Study* at 430 (“Indeed, most consumers have no more than one high-speed broadband provider available to them, and the bulk of the rest can choose only between their incumbent cable provider and their incumbent telephone provider (if it offers a high-speed product).”); David S. Evans, *Economic Analysis of the Impact of the Proposed Merger of Charter, Time Warner Cable, and Bright House Networks on Broadband Entry and Competition*, attached to Ex Parte Letter of INCOMPAS, MB Docket No. 15-149, at 16 ¶ 33 (Jan. 15, 2016)(attached as Exh. 8)(“Almost all individuals lack access to an alternative broadband provider that offers an equal or faster download speed.”).

⁷⁴ *Inquiry Concerning the Deployment of Advanced Telecomms. Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate such Deployment Pursuant to Section 706 of the Telecomms. Act of 1996, as Amended by the Broadband Data Improvement Act, 2016 Broadband Progress Report*, 31 FCC Rcd. 699, 701 ¶ 4, 731-32 ¶ 79 (2016) (“*2016 Broadband Progress Report*”). The FCC notes that its data might even understate the extent of the problem: “our analysis could indicate that the services are offered to Americans residing within the census block even if services are offered only to a portion of the residents residing in that census block.” *Id.* at 730 ¶ 75 n.234.

⁷⁵ *Id.* at 702 ¶ 6, 736 ¶ 86 (“The competitive options for advanced telecommunications capability are even more limited in rural areas with only 13% of Americans living in rural areas having more than one choice of providers.”).

⁷⁶ *Internet Access Services: Status as of June 30, 2016*, Industry Analysis and Technology Division Wireline Competition Bureau (Apr. 2017), https://apps.fcc.gov/edocs_public/attachmatch/DOC-344499A1.pdf.

⁷⁷ *2016 Broadband Progress Report*, 31 FCC Rcd. at 731-32 ¶¶ 78-79.

discussed below and lack of alternative providers that the Commission found that Charter's "monthly churn rate is nearly non-existent."⁷⁸

2. *Broadband providers offering Interconnection can exercise power in the separate upstream market for distribution of content over residential broadband connections.*

There is also a separate market for distribution of content over residential broadband.⁷⁹ Unlike the market for residential broadband Internet access, the market for distribution of content over broadband spans the country.⁸⁰ OVDs contract with "content providers, distributors, producers, and creators to acquire licensing for TV shows and movies"⁸¹ that allows them to distribute content nationwide.⁸² But to distribute that content, they rely on the networks of broadband providers to deliver content requested by their subscribers.

As far back as 2000, the DOJ found that the national market for distribution of content would be harmed by allowing AT&T to acquire a substantial share in RoadRunner,

⁷⁸ *Charter/TWC Order*, 31 FCC Rcd. at 6358 ¶ 65.

⁷⁹ *Rose Study* at 426 (Comcast and TWC "are two of the largest providers in the market for content *distribution* through traditional multichannel video 'pipes' and broadband Internet access. As such, the merger posed a potential risk to the competition that currently dilutes each firm's leverage in bargaining with content providers for distribution access.") (emphasis added).

⁸⁰ *Eighteenth Report*, 32 FCC Rcd. at 620 ¶ 128 ("An OVD's geographic service area potentially covers all regions capable of receiving high-speed Internet service.").

⁸¹ *How Does Netflix License TV Shows and Movies*, Netflix, <https://help.netflix.com/en/node/4976> (last visited July 16, 2017).

⁸² See *Charter/TWC Order*, 31 FCC Rcd. at 6434 ¶ 220 ("[N]ational programming is licensed to OVDs on a national basis. . .").

one of the largest broadband portals of the time.⁸³ The Department’s competitive concerns were concentrated on the increased market power that AT&T would be able to exercise post-merger in the national market for broadband content distribution. The Department was concerned that “by exploiting its ‘gatekeeper’ position in the residential broadband content market to extract anticompetitive terms and to disfavor certain content providers, AT&T could make it less attractive for content providers to invest in the creation of attractive broadband content.”⁸⁴

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. Indeed, Netflix found that *only* the four largest wired broadband providers are able to charge a “terminating access fee” to OVDs.⁸⁵ As the economists of the Department of Justice have recognized, “broadband providers with large numbers of subscribers have greater leverage to negotiate preferential terms and prices with edge providers seeking to reach those subscribers.”⁸⁶ Nancy Rose, DOJ’s Antitrust Division’s Deputy Assistant Attorney General for Economic Analysis in 2015, explained that, “many interconnection contracts are negotiated bilaterally between content providers and ISPs [in which a content

⁸³ Complaint, *United States v. AT&T*, No. 1:00-cv-01176, at 2 (D.D.C. May 26, 2000) (“Through the proposed merger, concentration in the market for aggregation, promotion, and distribution of residential broadband content would be substantially increased.”).

⁸⁴ *Id.*

⁸⁵ See David S. Evans, Economic Analysis of the Impact of the Comcast/Time Warner Cable Transaction on Internet Access to Online Video Distributors, attached to Petition to Deny of Netflix, Inc., MB Docket No. 14-57, at 10 (Aug. 27, 2014) (attached as Exh. 1).

⁸⁶ *Charter/TWC Order*, 31 FCC Rcd. at 6375 ¶ 95.

provider's leverage] depends upon the desirability of its content to consumers [while the broadband provider's leverage] is a function of the size of its customer base [because] content providers need access to customers."⁸⁷ This access to customers is important to a content provider because "the more end users that a content provider can reach, the easier it is to monetize investments (e.g., in programming), cover fixed costs, and permeate the national consciousness."⁸⁸ In regressions to determine the relationship between interconnection fees and size of broadband providers, the DOJ found that "the relationship between size and fees was found to be positive, statistically significant, and economically meaningful."⁸⁹ In other words, larger broadband providers obtained, higher interconnection fees, a sign of greater bargaining power. Further, "[OVDs] are vulnerable . . . because to deliver their service to consumers their traffic must travel over the wires of the very cable and telephone companies who are their direct competitors in consumer video markets."⁹⁰ Because OVDs rely on broadband connections to reach consumers, broadband providers that supply distribution are threats to OVDs because they stand between the OVD and its audience.⁹¹

⁸⁷ *Rose Study* at 427-428.

⁸⁸ *Id.* at 428.

⁸⁹ *Id.*

⁹⁰ *Id.* at 429.

⁹¹ Exh. 8 at 25-26 ¶ 53 ("All else being equal, larger MVPDs can impose far greater damage to a video programmer than smaller MVPDs by denying them access to households. Video programmers have incurred fixed and sunk costs in developing the programming. For most video programming, the video programmer has limited opportunities to earn revenue from a household that it cannot access. Therefore, preventing a video programmer from obtaining access to a large number of households can impose devastating consequences."); Exh. 1 at 13 ¶ 27 ("A large ISP has the ability to impose significant harm on OVDs through foreclosing access, partially or fully, to its subscribers who have few if any wired

The appropriate way to understand the existence of market power here is to look at circumstances in which a broadband provider “can degrade the connection between the OVD and its subscribers; [the broadband provider’s] subscribers cannot easily switch to another [broadband provider]; and OVDs that provide long-form content cannot otherwise reach these consumers.”⁹² All three conditions are easily met: The capacity provided at an interconnection point directly affects the quality of the transmission from content-creator to residential subscriber.⁹³ As demonstrated above, switching costs are high and there is no cost-effective substitute for fixed connections for a consumer who regularly consumes long-form streaming video.⁹⁴ In fact, the Commission recognized that AT&T’s merger with DIRECTV “would increase concentration in the video distribution market in certain geographic areas affecting 24% of U.S. households,”⁹⁵ which is why it imposed an interconnection reporting requirement. In stark contrast, the Commission has found that

broadband alternatives, thereby causing OVDs to lose the revenue and profit from the subscribers of the large ISP. That loss is more severe to the extent that OVDs have fixed costs that they cannot reduce in the near term.”).

⁹² David S. Evans, *Economic Analysis of the Impact of the Comcast/Time Warner Cable Transaction on Internet Access to Online Video Distributors: Response to Opposition to Petitions to Deny and Response to Comments*, attached to Reply of Netflix, Inc., MB Docket No. 14-57, 18 ¶ 35 (Dec. 23, 2014) (attached as Exh. 4).

⁹³ See David S. Evans, *Comcast’s Acquisition of Time Warner Cable Would Result in an Economically Significant Increase in the Magnitude of Terminating Access Fees for Online Video Distributors*, attached to Ex Parte Letter of Netflix, Inc., MB Docket No. 14-57, at 6 (Apr. 6, 2015)(attached as Exh. 6)(describing how as Comcast’s refusal to add port capacity “the video quality of Netflix’s traffic for Comcast subscribers declined precipitously.”).

⁹⁴ See *AT&T/DTV Order*, 30 FCC Rcd. at 9270 ¶ 363 (disagreeing with applicants that fixed wireless local loop service would match the performance of fixed broadband).

⁹⁵ *Id.* at 9165 ¶ 81.

“the vast majority of edge providers have no market power when dealing with BIAS providers.”⁹⁶

This bargaining power is not defeated by the presence of some settlement-free traffic exchanges. For example, in 2014, the Commission considered evidence that “Comcast [had] demonstrated its ability to leverage Internet interconnection into its network in order to pressure Netflix to pay for a direct interconnect agreement with Comcast.”⁹⁷ The Commission found that Time Warner Cable “used similar tactics to pressure edge providers to pay for access to its BIAS subscribers.”⁹⁸ Netflix’s disputes with large broadband providers show that broadband providers can degrade a consumer’s online video with impunity: “the evidence in the record indicates that consumers did not abandon Time Warner Cable during the time period when Netflix’s service was degraded on Time Warner Cable’s network.”⁹⁹

⁹⁶ *Charter/TWC Order*, 31 FCC Rcd. at 6385 ¶ 120 n. 390 (“Indeed, even the largest of these would likely only have limited if any market power when dealing with a large BIAS provider like Comcast or New Charter.”).

⁹⁷ *Id.* at 6384 ¶ 120; *see also* Exh. 1 at 63 ¶ 115 (“Comcast, however, as a profit maximizing company, presumably made the business decision that the present discounted value of benefits that it would receive as a result of degrading the quality of the Netflix video stream to Comcast subscribers as greater than the present discounted value of the costs it incurred as a result of degrading the quality of the Netflix video stream to its subscribers.”).

⁹⁸ *Charter/TWC Order*, 31 FCC Rcd. at 6385 ¶ 120 (noting that AT&T, Verizon and CenturyLink have all been able to impose paid peering charges on edge providers).

⁹⁹ *Id.* at 6381-82 ¶ 111; David Sappington, Reply Declaration, attached to Reply of DISH Network Corp., MB Docket No. 14-57, 5-6 ¶¶ 12-15 (Dec. 22, 2014) (attached as Exh. 2). As the *Verizon* court agreed, “a broadband provider like Comcast would be unable to threaten Netflix that it would slow Netflix traffic if all Comcast subscribers would then immediately switch to a competing broadband provider. But we see no basis for questioning the Commission’s conclusion that end users are unlikely to react in this fashion.” *Verizon*, 740 F.3d at 646.

C. Market Power is Enhanced by High Switching Costs.

This market power in both markets is reinforced by high switching costs.¹⁰⁰ Both financial and non-financial costs deter consumers from switching.¹⁰¹ The *Verizon* Court recognized that switching costs include early termination fees, the inconvenience of ordering, installing, and set-up, the difficulty in returning the earlier broadband provider's equipment, the risk of temporarily losing service, and the frustration of learning how to use new equipment.¹⁰² But even these easily understood issues understate the problem. A staff report from the Senate Permanent Subcommittee on Investigations found that major MVPD and broadband providers actively worked to dissuade customers from switching providers: "providers specifically trained their retention agents to undermine customers'

¹⁰⁰ See *2015 Open Internet Order*, 30 FCC Rcd. at 5631 ¶ 81 ("The broadband provider's position as gatekeeper is strengthened by the high switching costs consumers face when seeking a new service.").

¹⁰¹ See *Broadband Decisions: What Drives Consumers to Switch – or Stick With – Their Broadband Internet Provider*, FCC Working Paper (Dec. 2010) ("Financial and non-financial factors, such as installation fees or the hassle of getting new service, can inhibit consumers from changing service."); *Charter/TWC Order*, 31 FCC Rcd. at 6358 ¶ 66 ("Switching BIAS providers can be a difficult consumer experience and high switching costs are likely a factor in consumers choosing to retain their current broadband provider."); *2015 Open Internet Order*, 30 FCC Rcd. at 5631 ¶ 34 ("The broadband provider's position as gatekeeper is strengthened by the high switching costs consumers face when seeking a new service. . . . These costs may limit consumers' willingness and ability to switch carriers, if such a choice is indeed available."); *ATT/DTV Order*, 30 FCC Rcd. at 9208 ¶ 205 ("[M]any end users may have limited choice among broadband providers and switching costs can be a significant impediment to the ability of consumers to change broadband providers.").

¹⁰² *Verizon*, 740 F.3d at 646-64 (stating that the costs of switching include: "early termination fees; the inconvenience of ordering, installation, and setup, and associated deposits or fees; possible difficulty returning the earlier broadband provider's equipment and the cost of replacing incompatible customer-owned equipment; the risk of temporarily losing service; the risk of problems learning how to use the new service; and the possible loss of a provider-specific email address or website") (citation omitted).

reasons for disconnecting their service.”¹⁰³ Switching costs are further exacerbated because:

1. Consumers may not know why they are having trouble using an existing online service.¹⁰⁴
2. Selective degradation may not rise to the level of a problem that would motivate switching, especially when it is new and nascent competitors that are disadvantaged.
3. Consumers have no certainty that problems with accessing particular content will not be the same with a new provider. As the Commission noted in rejecting Charter’s contention that consumers could easily switch broadband providers, “consumers may switch only if they believe that New Charter—and not the edge provider—is responsible for the problem and that switching would resolve the issue.”¹⁰⁵ The Commission found that “the available evidence suggests that consumers, possibly for a combination of these aforementioned reasons, do not

¹⁰³ *Inside the Box: Customer Service and Billing Practices in the Cable and Satellite Industry*, Minority Staff Report, Senate Permanent Subcommittee on Investigations, at 2 (June 23, 2016) (“As stated in a Time Warner Cable training document, the goal of the retention agent was to ‘do the opposite of what the customer is calling for.’”).

¹⁰⁴ *See 2015 Open Internet Order*, 30 FCC Rcd. at 5631 ¶ 81 (“Commenters also point to an information problem, whereby consumers are unsure about the causes of problems or limitations with their services—for example, whether a slow speed on an application is caused by the broadband provider or the edge provider—and as such consumers may not feel that switching providers will resolve their Internet access issues.”); Exh. 1 at 47-48 ¶ 83 (Comcast and Time Warner Cable subscribers “have no real way to know whether any decline in quality of online video streaming they are receiving is caused by their ISP or by their OVD. They then face uncertainty over the quality of online video streaming they will receive from the alternative ISP that is available to them.”).

¹⁰⁵ *Charter/TWC Order*, 31 FCC Rcd. at 6346 ¶ 43.

switch BIAS providers when confronted with poor edge provider performance.”¹⁰⁶ Even in the face of degradation of a major OVD—Netflix—“Time Warner Cable customers did not abandon its BIAS when the quality of Netflix’s stream deteriorated.”¹⁰⁷

D. Market Power Is Enhanced Because Entry Barriers Are Large and Enduring.

There are significant barriers to entry that act to maintain market power.¹⁰⁸ These entry barriers include infrastructure and programming costs and the ability to access sufficient Internet capacity. The Commission has repeatedly found that “there are numerous barriers to infrastructure investment”¹⁰⁹ Indeed, the Commission has recently established a Broadband Deployment Advisory Committee to study means of lowering entry barriers precisely because they are high.¹¹⁰

Moreover, and because consumers prefer a bundle of broadband and PayTV, high video programming costs acts as a significant barrier to entry because providers with

¹⁰⁶ *Id.* at 6381 ¶ 111. The FCC also found that broadband providers could use other methods of making OVD service less appealing to consumers, regardless of their specific provider. For example, by using restrictive contractual provisions in agreements with third party content providers that would limit the ability of OVDs to obtain content: “[a]s a result, the ability to switch broadband providers would not provide an effective remedy because the OVD service would now be less appealing to consumers, regardless of which provider’s network consumers used to access it.” *Id.* at 6346 ¶ 43 n.120.

¹⁰⁷ *Id.* at 6346 ¶ 43.

¹⁰⁸ *See id.* at 6356 ¶ 63 (“We find that it is unlikely that other competitors will emerge in a timely manner.”).

¹⁰⁹ *2016 Broadband Report*, 31 FCC Rcd. at 751 ¶ 125.

¹¹⁰ *FCC Announces the Establishment of the Broadband Deployment Advisory Committee and Solicits Nominations for Membership, Public Notice*, DA 17-110 (Jan. 13, 2017).

fewer subscribers typically pay more on a per-unit basis.¹¹¹ As the Commission has recognized, “scale economies of large MVPDs may provide advantages by enabling them to obtain volume discounts for programming [and] larger MVPDs may have negotiating strength that can be used to acquire programming at lower prices, relative to the prices paid by smaller MVPDs.”¹¹² As DOJ economist Nancy Rose explained, “[o]verbuilders, however, have a problem: many consumers want to purchase both video and broadband service. This may require overbuilders to offer both video and broadband service in a discounted bundle if they wish to compete with the incumbent cable companies—but providing video service is more expensive for overbuilders than for the large, incumbent cable companies because the former typically pay higher programming costs.”¹¹³

In 2016, MVPDs paid on average \$50.95 a month for programming for each subscriber, up 8.4% from 2015.¹¹⁴ Large MVPDs mitigate the effects of increased programming costs, either by seeking ever-greater scale to increase their leverage with content providers by merging with other MVPDs (Charter/TWC) or by purchasing their

¹¹¹ See Exh. 8 at 39 ¶ 78; *AT&T/DTV Order*, 30 FCC Rcd. at 9155 ¶ 57 (“[T]o be viable, broadband providers have to enter the MVPD business in addition to the ISP business because most households want to purchase both video programming and Internet access together.”).

¹¹² *Eighteenth Report*, 32 FCC Rcd. at 581 ¶ 32; Exh. 4 at 86-87 ¶ 194 (“Consumers currently want a bundle of broadband and video programming. New entrants face a significant disadvantage. Broadband entrants operate at a significant cost advantage compared with much larger rivals in the same markets like Comcast, which can negotiate much lower programming costs.”).

¹¹³ *Rose Report* at 425, 430.

¹¹⁴ SNL Kagan, a Media Research Group within the TMT offering of S&P Global Market Intelligence, *Cable Industry Overview* at 8 (May 2017) (projecting that increased programming costs will “cut deeply into gross video margin and increasingly pressuring the decades-old video business model.”).

own video content (Comcast/NBCU).¹¹⁵ The Commission found that “a significant impediment to new BIAS provider entrants is the high cost of obtaining linear video programming, which most subscribers prefer to bundle with BIAS.”¹¹⁶ This has been INCOMPAS members’ experience.¹¹⁷ Conversely, actions like the current open Internet rules that empower entry actually stimulate entry because they permit the potential for “virtual” bundles that would relieve a broadband provider from having to incur the costs of providing traditional PayTV packages.¹¹⁸ In other words, rules that protect an open Internet make stand-alone broadband more valuable, which creates a more attractive investment opportunity for potential competitive broadband providers.

¹¹⁵ See *Eighteenth Report*, 32 FCC Rcd. at 626-27 ¶ 143-45 (“Owners and producers of content may be vertically integrated with, or have exclusivity arrangements with, cable networks, broadcast networks, and/or MVPDs.”).

¹¹⁶ *Charter/TWC Order*, 31 FCC Rcd. at 6357 ¶ 63; see also Brian Fung, *Here’s the Single Biggest Thing Holding Google Fiber Back*, Wash. Post (Oct. 6, 2014), <http://wpo.st/es7G1/> (noting that Google’s Vice President of Access Service described video as “the single biggest impediment” to Google Fiber’s deployment).

¹¹⁷ *The Status of Competition in the Market for the Delivery of Video Programming, Reply Comments of INCOMPAS*, MB Docket No. 16-247, at 3-5 (Oct. 24, 2016) (explaining the difficulty INCOMPAS members have in securing access to linear video content at affordable rates and the negative impact on the business case for broadband deployment by new entrants).

¹¹⁸ David S. Evans, *White Paper: Contrary to Professor Carlton’s Theory, Comcast Has a Strong Incentive to Engage in Vertical Foreclosure*, attached to Ex Parte Letter of Netflix, Inc., MB Docket No. 14-57, at 4 (Mar. 18, 2015) (attached as Exh. 5) (“The development of OVD alternatives, however, and the resulting widespread availability of video programming on the Internet, may in the long run enable potential broadband entrants to avoid both the effort of licensing bundles of programming and the cost disadvantage of doing so at small-scale, thereby enabling them to enter as broadband only or broadband-almost-only suppliers.”); *Charter/TWC Order*, 31 FCC Rcd. at 6370 ¶ 86 (“Because entry and expansion will not diminish New Charter’s BIAS shares in the foreseeable future, subscribers will continue to have no (or limited) alternative cable or fiber BIAS options when faced with data caps and UBP designed to deter online video consumption.”).

E. Separate from the Exercise of Market Power, Broadband Providers Act as “Gatekeepers,” Constraining Choice and Competition in Ways that Fully Justify Commission Action.

It has been well known for decades that telecommunication networks hold gatekeeper power that can be used to artificially shape competition in markets that are dependent upon the use of those networks.¹¹⁹ Gatekeeper power is the ability, through control of network facilities, to determine which traffic will reach consumers and on what terms; an ability, as the D.C. Circuit has explained, that “does not depend on their [the broadband providers] benefiting from the sort of market concentration that would enable them to impose substantial price increases on end users.”¹²⁰ Rather, “broadband providers’ ability to impose restrictions on edge providers simply depends on end users not being fully responsive to the imposition of such restrictions.”¹²¹

As demonstrated above, the existence of high switching costs, information asymmetry, and high barriers to entry supplies more than ample evidence that consumers are not fully responsive to the imposition of such restrictions that would violate the existing open Internet rules.

Gatekeeper power exists in both the local consumer-facing BIAS markets and in national markets for distribution of content over broadband. These two forms of power reinforce each other; a gatekeeper could foreclose the ability of consumers to reach the content they desire or use the threat of foreclosure to extract higher rents from other

¹¹⁹ *See infra* at III.A.1.

¹²⁰ *Verizon*, 740 F.3d at 648.

¹²¹ *Id.*

platform participants or use the combination of the two.¹²² While the NPRM asserts that the well-understood role of broadband providers as gatekeepers needs further study, both the FCC, DOJ and the DC Circuit have recognized the existence of gatekeeper power:

“[b]ecause all end users generally access the Internet through a single broadband provider, that provider functions as a ‘terminating monopolist,’ with power to act as a ‘gatekeeper’ with respect to edge providers that might seek to reach its end-user subscribers.”¹²³

The gatekeeper role poses a direct threat to the virtuous circle—the process by which subscriber access to an open internet drives broadband usage and therefore broadband network investment and deployment. The “virtuous circle” is the interplay between complementary markets where investment in broadband infrastructure provides a platform for the development of advanced broadband-based services, which in turn drives demand for bandwidth, furthering additional investment in infrastructure.¹²⁴ The *Verizon* court agreed with the existence of the virtuous circle: “[t]he Commission’s

¹²² See *2015 Open Internet Order*, 30 FCC Rcd. at 5628 ¶ 78 (“Broadband providers function as gatekeepers for both their end user customers who access the Internet, and for various transit providers, CDNs, and edge providers attempting to reach the broadband provider’s end-user subscribers.”).

¹²³ *Verizon*, 740 F.3d at 646; see also *2015 Open Internet Order*, 30 FCC Rcd. at 5629 ¶ 80 (“As the Commission and the court have recognized, broadband providers are in a position to act as a ‘gatekeeper’ between end users’ access to edge providers’ applications, services, and devices and reciprocally for edge providers’ access to end users.”). As Judge Silberman recognized, “if I purchase my groceries at a particular store, any food supplier who wishes to sell to me probably must do so through that particular store because I am unlikely to switch grocery stores over a single product.” *Verizon*, 740F.3d at 663 n.7 (concurring in part).

¹²⁴ See *2015 Open Internet Order*, 30 FCC Rcd. at 5604 ¶ 7.

emphasis on this connection between edge-provider innovation and infrastructure development is *uncontroversial*.”¹²⁵

However, the virtuous circle is uniquely vulnerable to broadband providers’ role as gatekeepers: “when a broadband provider acts as a gatekeeper, it actually chokes consumer demand for the very broadband product it can supply.”¹²⁶ As discussed above, broadband providers have the incentive and ability to engage in activities that can disrupt the virtuous circle.¹²⁷ These practices “would have a dampening effect on innovation, interrupting the virtuous cycle . . . [and] are likely to harm consumers’ and edge providers’ ability to use broadband Internet access service to reach one another.”¹²⁸

Today there is a growing need for open Internet protections. Content owners have launched their own video-on-demand services, including Hulu, CBS All Access, HBO NOW, Showtime Anytime, and STARZ. And as those kinds of services grow, more and more services and devices are becoming network dependent, such as Internet of Things devices,

¹²⁵ *Verizon*, 740 F. 3d at 644 (emphasis added)(“The Commission has more than adequately supported and explained its conclusion that edge-provider innovation leads to the expansion and improvement of broadband infrastructure.”).

¹²⁶ *2015 Open Internet Order*, 30 FCC Rcd. at 5608 ¶ 20.

¹²⁷ *Id.* at 5633 ¶ 83 (“Broadband providers have incentives to engage in practices that will provide them short term gains but will not adequately take into account the effects on the virtuous cycle.”).

¹²⁸ *Id.* at 5662 ¶ 140; *see also Charter/TWC Order*, 31 FCC Rcd. 6380 ¶ 108 (finding that Charter’s position as gatekeeper could lead it to raise interconnection costs which would “disrupt the virtuous cycle of innovation.”); Exh. 4 at 84 ¶ 187 (Comcast “has a large enough number of subscribers to reduce the number of viewers of OVDs and, through the vicious circle of reduced operating capital and reduced ability to purchase programming, significantly decrease the quality of programming OVDs provide their remaining viewers.”).

video calling, cloud computing, and gaming.¹²⁹ These new services and platforms rely on the protections of the Open Internet order to bring innovative content and services to millions of consumers. And these are not all new-fangled inventions from technology companies. Real-estate agents, local appliance dealers and other businesses up and down Main Street are increasingly providing goods and services that are network-dependent that consumers access via the Internet. For example, online markets like Zillow or Trulia linking realtors with homebuyers are increasingly popular.¹³⁰

III. THE COMMISSION'S PROPOSED LEGAL ANALYSIS IS FATALLY FLAWED

A. Broadband Internet Access Service Is a Telecommunications Service.

1. *BIAS always has been understood to consist of two separate components.*

Broadband Internet access service has long been recognized as consisting of two separate components—high-speed transmission to the Internet *and* applications available over this transmission.¹³¹ This distinction is anchored in Commission precedent extending at least as far back as the *Computer Inquiries* beginning in 1966, where the Commission ultimately required telephone companies that provided “enhanced services” to offer “basic”

¹²⁹ See *2016: Global Internet Phenomena, Latin America & North America*, Sandvine Inc. (Oct. 2016), <https://www.sandvine.com/downloads/general/global-internet-phenomena/2016/global-internet-phenomena-report-latin-america-and-north-america.pdf>.

¹³⁰ The National Association of Realtors found that 90% of home buyers looked for houses online during their buying process. *The Digital House Hunt: Consumer and Market Trends in Real Estate*, National Association of Realtors, https://www.nar.realtor/sites/default/files/Study-Digital-House-Hunt-2013-01_1.pdf (last visited July 16, 2017).

¹³¹ *Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 1008 (2005) (Scalia, J., dissenting) (“The Commission's ruling began by noting that cable-modem service provides both ‘high-speed access to the Internet’ and other ‘applications and functions’ because that is exactly how any reasonable consumer would perceive it: as consisting of two separate things.”) (internal citations omitted).

transmission services over their infrastructure on a common carrier basis.¹³² Of course, Congress codified this framework in the Telecommunications Act of 1996, which regulated basic services as common carriage under Title II while leaving information services (i.e., enhanced services) largely unregulated.

Congress adopted this regulatory asymmetry between basic and enhanced services precisely because it understood that the entities that controlled the physical connections could—if left unchecked—use their control of the transmission lines to control the fate of the information running “over-the-top” of these lines. Conversely, information providers lacked any similar ability to affect the providers of the physical infrastructure. Such one-way gatekeeping power caused Congress to regulate the latter while adopting a hands-off posture toward the former.

When Congress passed the Telecommunications Act at the dawn of the commercial Internet, Title II applied to early Internet access services that gave consumers the ability to reach the Internet through their telephone lines, where they could access ISPs such as AOL, Prodigy, and CompuServe, which did not control their own transmission facilities.¹³³ And

¹³² See, e.g., Amendment of Section 64.702 of the Commission’s Rules and Regulations, *Final Decision*, 77 FCC 2d 384, 419-425 ¶¶ 93, 95, 97, 104 (1980) (in which the Commission declared that Title II applied to carriers’ provision of “basic” service, “a pure transmission capability” including “analog or digital transmission of voice, data, video, etc.,” and determined that the fact that computers might be involved—for example, to apply “bandwidth compression techniques, circuit switching, message or packet switching, error control techniques, etc., that facilitate economical, reliable movement of information”—did “not alter the nature of the basic service.” “[E]nhanced services,” on the other hand, were defined as “any offering over the telecommunications network which is more than a basic transmission service,” including voicemail, time-share services on a mainframe computer and email.).

¹³³ See *2015 Open Internet Order*, 30 FCC Rcd. at 5737 ¶ 315.

when higher-speed Internet access launched in the form of DSL services, Title II also applied to this first important, faster connection to the Internet.¹³⁴

When the Commission adopted the *Cable Modem Report and Order* in 2002 to classify high-speed Internet access service provided by cable modem as an information service, it left untouched two fundamental notions. First, it did not reverse the understanding that a broadband Internet access provider could use its gatekeeper position to determine the fate of Internet content made available over its infrastructure. Instead, the Commission noted at the time that the relationship between and among cable operators, broadband providers, and customers was rapidly evolving and the Commission would observe closely the developments.¹³⁵ Two years later, in response to concerns about cable companies imposing certain restrictions on their customers' Internet access use, Chairman Powell stated that "ensuring that consumers can obtain and use the content, applications and devices they want . . . is critical to unlocking the vast potential of the broadband Internet."¹³⁶ This approach was enshrined in the *Internet Policy Statement* in 2005. Responding to concerns about the gatekeeper power of the broadband providers and approved unanimously by the Commission, the *Internet Policy Statement* established clear

¹³⁴ *Deployment of Wireline Servs. Offering Advanced Telecomms. Capability, Order on Remand*, 15 FCC Rcd. 385, 388 ¶ 9 (1999) ("At the outset, we affirm our prior conclusion that xDSL-based advanced services constitute telecommunications services as defined by section 3(46) of the Act."), *vacated in part by WorldCom v. FCC*, 246 F.3d 690 (D.C. Cir. 2001).

¹³⁵ *Cable Modem Order*, 17 FCC Rcd. at 4818 ¶ 30.

¹³⁶ Michael K. Powell, Chairman, Federal Communications Commission, *Preserving Internet Freedom: Guiding Principles for the Industry*, Remarks at the Silicon Flatirons Symposium at 3 (Feb. 8, 2004), https://apps.fcc.gov/edocs_public/attachmatch/DOC-243556A1.pdf.

principles designed to ensure an Open Internet.¹³⁷ The Commission made clear that it would enforce these principles¹³⁸ and demonstrated that resolve in enforcement proceedings and mergers between service providers.¹³⁹ The Bush Administration also expressed support for the *Internet Policy Statement* and noted that the FCC has authority to enforce the *Internet Policy Statement* to address gatekeeper behavior: “[t]he Administration supports the broadband policy statement of the Federal Communications Commission (FCC) and . . . believes the FCC currently has sufficient authority to address potential abuses in the marketplace.”¹⁴⁰

Second, the Commission did not abandon the understanding that broadband Internet access service consisted of two components—telecommunications and data services made available through telecommunications. Rather, the Commission determined that, “[a]s provided to the end user[,] the telecommunications is part and parcel of cable modem service and is integral to its other capabilities.”¹⁴¹ In fact, because of the obvious importance of the telecommunications offering, Qwest, Verizon and other broadband

¹³⁷ *Internet Policy Statement*, 20 FCC Rcd. at 14987-88 ¶¶ 4-5 & n.15 (establishing that, subject to “reasonable network management,” the principles were intended to ensure consumers had the right to (1) “access the lawful Internet content of their choice”; (2) “run applications and use services of their choice”; (3) “connect their choice of legal devices that do not harm the network”; and (4) “enjoy competition among network providers, application and service providers, and content providers.”).

¹³⁸ *Internet Policy Statement*, 20 FCC Rcd. at 14988 ¶ 5 (“[T]he Commission will incorporate the above principles into its ongoing policymaking activities.”).

¹³⁹ See *2015 Open Internet Order*, 30 FCC Rcd. 5912 ¶ 65.

¹⁴⁰ Executive Office of the President, Office of Management and Budget, Statement of Administration Policy: H.R. 5252 – Communications Opportunity, Promotion, and Enhancement Act of 2006 (June 8, 2006), <http://www.presidency.ucsb.edu/ws/index.php?pid=24934>.

¹⁴¹ *Cable Modem Order*, 17 FCC Rcd. at 4823 ¶ 39.

Internet access providers asserted that the Commission should classify cable modem service under Title II.¹⁴² The Commission nevertheless classified Internet access service as an information service.¹⁴³

In fact, in succeeding orders, the Commission continued to acknowledge that broadband Internet access service consisted of two components. In the *Wireline Broadband Order*, the Commission concluded that “[w]ireline broadband Internet access service, like cable modem service, is a functionally integrated, finished service that inextricably intertwines information-processing capabilities with data transmission such that the consumer *always* uses them as a unitary service.”¹⁴⁴ The Commission echoed this finding in the *Broadband over Power Lines Order*.¹⁴⁵ And in the *Wireless Broadband Order*, the Commission concluded that “the transmission component of wireless broadband Internet access service is ‘telecommunications’ and that the offering of the telecommunications

¹⁴² See Comments of Qwest Communications International Inc., GN Docket No. 00-185, at ii, 1-7 (Dec. 1, 2000); Comments of Verizon Communications, GN Docket No. 00-185, at 18-21 (Dec. 1, 2000) (“Because the Act automatically regulates cable operators offering broadband access as common carriers, the Commission cannot . . . continue its current policy of inaction”).

¹⁴³ *Cable Modem Order*, 17 FCC Rcd. at 4821-22 ¶ 37.

¹⁴⁴ *Internet Policy Statement*, 20 FCC Rcd. at 14860 ¶ 9 (emphasis added).

¹⁴⁵ United Power Line Council’s Petition for Declaratory Ruling Regarding the Classification of Broadband Power Line Internet Access Serv. as an Information Serv., *Memorandum Opinion and Order*, 21 FCC Rcd. 13281, 13281 ¶ 1 (2006) (“[W]e find that the transmission component underlying [Broadband over Power Line]-enabled Internet access service is ‘telecommunications,’ and that the offering of this telecommunications transmission component as part of a functionally integrated, finished BPL-enabled Internet access service offering is not a ‘telecommunications service.’”).

transmission component as part of a functionally integrated Internet access service offering is not ‘telecommunications service.’”¹⁴⁶

The Supreme Court also recognized that broadband Internet access services consisted of two parts—a telecommunications part and an information part provided through telecommunications.¹⁴⁷ However, the Court concluded that the statute was ambiguous as to whether the offering by broadband providers, when viewed in totality, was an “information service” and deferred to the Commission’s expertise.¹⁴⁸ The Court left untouched, however, the Ninth Circuit’s conclusion that the “transmission element of cable broadband service” was “telecommunications.”¹⁴⁹

2. *The NPRM’s assertion that BIAS does not offer telecommunications is contrary to fact and law, and it cannot be maintained.*

The NPRM therefore, when viewed in historical context, represents a clear departure from every other Commission and court that has looked at the question of what offerings a broadband provider makes available to its subscribers. The Commission now makes the unprecedented and unsupportable claim that there is no telecommunications component with which a broadband provider’s information services can be intertwined. It has disappeared. The NPRM bases its observation on two unsupportable claims to justify

¹⁴⁶ *Appropriate Regulatory Treatment for Broadband Access to the Internet over Wireless Order, Declaratory Ruling*, 22 FCC Rcd. 5901, 5901-02 ¶ 1 (2007).

¹⁴⁷ *Brand X Servs.*, 545 U.S. at 988 (2005) (“[C]able companies use ‘telecommunications’ to provide consumers with Internet service; cable companies provide such service via the high-speed wire that transmits signals to and from an end user’s computer.”).

¹⁴⁸ *Id.* at 990 (“The question, then, is whether the transmission component of cable modem service is sufficiently integrated with the finished service to make it reasonable to describe the two as a single, integrated offering.”).

¹⁴⁹ *Brand X Internet Servs. v. FCC*, 345 F.3d 1120, 1129 (9th Cir. 2003), *rev’d and remanded sub nom. Nat’l Cable & Telecomms Ass’n v. Brand X Internet Servs.*, 545 U.S. 967 (2005).

that a broadband provider's offering does not meet the statutory definition of "telecommunications": (1) broadband provider users do not specify the points between and among which information is sent online; and (2) broadband providers routinely change the form or content of the information sent over their networks.¹⁵⁰

First, the NPRM claims that "broadband Internet users do not typically specify the 'points' between and among which information is sent online," and that instead, routing decisions are based (i) on the architecture of the network; (ii) not on consumers' instructions; and (iii) consumers are often unaware of where content is stored.¹⁵¹

But these assertions are either misleading or erroneous or both. Every user on the Internet has an IP address. When a broadband user wants to reach another user, she specifies that she wants to reach that user's IP address.¹⁵² That the user may not know the physical location of the other user or the other user's IP address is irrelevant.¹⁵³ The Commission's unprecedented proposal to first create a molehill on which it then tries to erect a mountain out of the fact that a user might not know the physical location of another user's IP address would disqualify today's plain old telephony services and other

¹⁵⁰ *NPRM*, 32 FCC Rcd. at 4443-44 ¶¶ 29-30.

¹⁵¹ *Id.* at 4443 ¶ 29.

¹⁵² Comment of Barbara A. Cherry and Jon M. Peha, GN Docket No. 14-28, at 5 (Dec. 22, 2014) ("In each IP packet, the sender places the IP address of the packet's intended recipient. In some cases, the sender knows the recipient's IP address already, and in some cases the sender must first look up the desired IP address. Either way, communications is clearly to a point specified by the user sending the packet.").

¹⁵³ *See, e.g. Cable Modem Order*, 17 FCC Rcd. at 4806 ¶ 11 (in which the FCC recognized that a user does not specify the physical location: "a subscriber can access the service or content of his choice by typing in the Uniform Resource Locator ('URL') of, or clicking on a hyperlink to, the desired service or content, using the web browser chosen by the subscriber or included with the subscriber's cable modem service.").

commonly understood telecommunications services from being considered telecommunications.

A user specifies that she wants to reach Amazon to watch *Transparent*. She may or may not know that Amazon has multiple locations for *Transparent* content throughout the country. Nor does she care. She specifies Amazon as the “point” on the Internet where she wants to go. She does not care whether that point is physically located in Salem, Massachusetts; Salem, Oregon; or Salem, Illinois. She would be concerned, however, if she specified Amazon but she instead were taken to HBO, which is not her desired location. Similarly, when Amazon is contacted by the Amazon subscriber and sends that subscriber the video stream for *Transparent*, it specifies that it wants to reach this user or the user’s IP address, not a different user’s IP address. In other words, IP addresses *are* the points specified by users on the Internet.

Physical addresses—whether described as a street address or longitude and latitude in a Cartesian coordinate grid—are completely irrelevant when communicating over the Internet (or for that matter, over a plain old telephone system). When one of the 7 million (and counting) users submits online comments to the Commission in response to the NPRM, she specifies the Commission as the point to which her comments are directed. She may or may not know that the FCC is located at 445 12th Street SW, Washington DC, or at 38° 53’ 0.2826” N, 77° 1’ 43.514” W. Nor does she care. She only cares that her comment makes it to the FCC.

This is not any different than how users have specified reaching phone numbers associated with people to whom they wish to connect over a plain old telephone platform. Just like with IP addresses, telephone numbers have been the points specified by users of

the telephone system for decades—no matter that any particular telephone number may or may not be in a particular physical location or whether the user calling that phone number knows the physical location when placing a call. A call to a landline number might be delivered to a variety of destinations, or multiple destinations. Calls to 800 numbers might be delivered to any number of call centers. Indeed, even in the early days of telephony, a caller did not tell the switch operator that she wanted to reach a physical address but rather asked to be connected to “Murray 446.”

Second, a user expects her communications to be handled by the broadband provider without change in the content of her communication. When she accesses Amazon’s *Transparent*, she does not expect her broadband provider to insert additional scenes into the program or to remove some scenes. Nor does it. When a consumer complains about an organization’s “fake news,” he does not think to ascribe blame to the broadband provider that delivers the content, precisely because the broadband provider acts as a mere conduit for such content. This would be akin to blaming the U.S. Postal Service for the passive-aggressive compliments a mother-in-law includes in a birthday card to her child’s partner.

In fact, the Copyright Act equips broadband providers with a unique safe harbor from copyright infringement liability precisely because the Copyright Act considers the provider a pure conduit for the transmission of the content without any role for editing or removing such infringing content.¹⁵⁴ In contrast, an edge provider has a specific duty under

¹⁵⁴ 17 U.S.C. § 512(a).

the Copyright Act to remove copyrighted content when notified by a rights-holder that the display of such content is unlawful.¹⁵⁵

A broadband provider receives such unique protection from liability only to the extent it qualifies as a “service provider” under Section 512(k)(1)(A) of the Digital Millennium Copyright Act (“DMCA”), where a qualifying service provider is defined as “an entity offering the transmission, routing, or providing of connections for digital online communications, between or among points, specified by a user, of material of the user’s choosing, without modification to the content of the material as sent or received.”¹⁵⁶

If broadband providers offered an information component because they routinely modify the content of the users who send and receive communications, they would not qualify as service providers under the DMCA. The NPRM proposes a framework that cannot be sustained, and the contrast to a broadband provider’s treatment under the Copyright Act serves a useful example of the absurdity of the proposed false distinction. If the NPRM were adopted on this point, a broadband provider’s telecommunications offering would exist in a perpetual state of flux. It would be the Schrödinger’s cat of the ecosystem, where when the Copyright Office opens the broadband provider’s box, a telecommunications cat may exist and may in fact be alive and well. When the Commission opens the box, it is dead. The NPRM asserts here that our telecommunications cat has died.

¹⁵⁵ 17 U.S.C. § 512(c)(1)(C).

¹⁵⁶ 17 U.S.C. § 512(k)(1)(A). Of course, this is similar to the definition of “telecommunications” in the Communications Act. *See* 47 U.S.C. § 153(50) (defining telecommunications as “transmission, between or among points specified by the user, of information of the user’s choosing, without change in the form or content of the information as sent and received”).

The NPRM’s finding creates a further absurdity relative to the statute. Section 3 of the Communications 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*”¹⁵⁷ Congress clearly understood that an information service needed the physical infrastructure of a telecommunications service to be distributed; by definition, an information service is one provided “via telecommunications.” As Congress largely was codifying the logic of the *Computer Inquiries*, this statutory definition makes sense.¹⁵⁸ Here, however, because the Commission has found that there is no telecommunications component of the broadband provider’s offering,¹⁵⁹ it is not clear that the broadband providers satisfy the statutory definition of information service. Because the telecommunications has disappeared, the definition of information services crumbles without the telecommunications foundation to support it.

Obviously, the contortions required to hold together the false construct where broadband providers do not provide a telecommunications offering in the context of the Communications Act but do so for purposes of the Copyright Act further is further evidence that no such distinction exists in the first place.

Further, the protocol processing to interweave IPv4 networks to IPv6 does not alter a user’s communications any more than a telephone user’s voice being broken into

¹⁵⁷ 47 U.S.C. § 153(24) (emphasis added).

¹⁵⁸ *Brand X Servs.*, 545 U.S. at 970 (“Congress passed the Act’s definitions against the background of this regulatory history [of the *Computer Inquiries*], and it may be assumed that the parallel terms ‘telecommunications service’ and ‘information service’ substantially incorporated the meaning of ‘basic’ and ‘enhanced’ service.”).

¹⁵⁹ *NPRM*, 32 FCC Rcd. at 4443-44 ¶¶ 29-30.

individualized packets of code as it is being transmitted over the Internet and processed and reassembled into an audible format on the other end of the connection does.

Similarly, that a broadband provider may use a firewall that blocks content that could impair the network does not mean that the provider changes the form or content of the information sent or received. Practices that permit a telecommunications service to protect the integrity of its network are routinely recognized as permissible and as not changing the fundamental end-to-end integrity of a user's communications. For example, the Wiretap Act prohibits a telephony provider from intercepting a phone call between telephone customers; however, it makes an exception where the service providers must do so to protect its network.¹⁶⁰ In addition, the Commission is currently considering allowing telecommunication providers increased flexibility to block illegal robocalls.¹⁶¹ The *Robocall NPRM* did not once discuss whether such activity would be transforming the content or affecting the classification of telecommunication providers.¹⁶² Yet, call blocking is essentially what a firewall does. A firewall blocks harmful content from entering a network.¹⁶³ To the end user, a firewall should be invisible as it blocks the harmful content

¹⁶⁰ 18 U.S.C. § 2511(2)(a)(i); *see also* 18 U.S.C. § 2511(2)(h)(ii).

¹⁶¹ *See* Advanced Methods to Target and Eliminate Unlawful Robocalls, *Notice of Proposed Rulemaking and Notice of Inquiry*, CG Docket No. 17-59 (Mar. 23, 2017) (“*Robocall NPRM*”).

¹⁶² *See id.*

¹⁶³ Frederic Avolio, *Firewalls and Internet Security*, *Internet Protocol Journal* (June 1999), <http://www.cisco.com/c/en/us/about/press/internet-protocol-journal/back-issues/table-contents-1/ipj-archive/article09186a00800c85ae.html> (“A firewall intercepts and controls traffic between networks with differing levels of trust. It is part of the network perimeter defense of an organization and should enforce a network security policy.”); *see also* Paul D. Robertson, Matt Curtin, and Marcus J. Ranum, *Internet Firewalls: Frequently Asked Questions*, *InterHack* (Apr. 1, 2009), <http://www.interhack.net/pubs/fwfaq/> (“A firewall is a system or group of systems that enforces an access control policy between two

before it even reaches the user. Similarly, the call blocking proposed by the Commission would be invisible to the end user. If it were implemented, the only sign of its implementation would be that users would receive fewer robocalls; though the end user may have no idea why. Yet, no one would seriously contend that call blocking would transform telecommunication providers into an “information service” even though call blocking requires inspecting incoming phone calls to determine whether the number was valid,¹⁶⁴ allocated to a provider,¹⁶⁵ assigned to a subscriber,¹⁶⁶ or originating from an international location,¹⁶⁷ which are all functions similar to that of a firewall. Such abilities do not mean that we fail to consider the telephone company a mere conduit for telecommunications.

Similarly, common carriers of goods deliver packages from a customer to a destination of the customer’s choosing, yet they reserve the right to open, inspect, and deny delivery of harmful or unlawful goods.¹⁶⁸ This does not mean that such carriers modify the contents of their customers’ shipments.

or more networks. The actual means by which this is accomplished varies widely, but in principle, the firewall can be thought of as a pair of mechanisms: one which exists to block traffic, and the other which exists to permit traffic.”).

¹⁶⁴ *Robocall NPRM* ¶ 17.

¹⁶⁵ *Id.* ¶ 19.

¹⁶⁶ *Id.* ¶ 21.

¹⁶⁷ *Id.* ¶ 24.

¹⁶⁸ *See, e.g., Terms and Conditions of Ground Service, UPS*, <https://www.ups.com/content/pr/en/resources/service/terms/ground.html> (last visited July, 4, 2017) (“UPS reserves the right to open and inspect any package tendered to it for transportation.”); *see also* Karishma Mehrotra, *A Touchy Legal Question for FedEx, UPS: What’s in the Box?*, Wall St. J. (July 25, 2014), <https://blogs.wsj.com/corporate-intelligence/2014/07/25/a-touchy-legal-question-for-fedex-ups-whats-in-the-box/>.

3. *Providing a capability for interaction with information does not extinguish a broadband provider's telecommunications functions.*

The Commission makes the unprecedented claim that a broadband provider offers its users an “information service” not for the services it has found to be information services in the past (e.g., web browsing and email), but for the mere fact that a broadband provider offers the *capability* for engaging such content on the Internet.¹⁶⁹ It seems to find that because such content cannot be accessed *but for* the services of the broadband provider—i.e., a user is not capable of accessing the Internet without an Internet access provider—that the provider itself qualifies as an information service.

This proves too much. Relying on the Commission’s logic, the electric company would qualify as an information service because the same user would not be capable of interacting with content on the Internet but for the electricity provided by the electric utility.

4. *The NPRM obfuscates the network management exception.*

Nor can the Commission reasonably maintain that the broadband provider offering is “intermingled” with information services in such a fashion that treating the service as an information service accords with language, congressional intent and regulatory history. Domain Name System (“DNS”), caching, and cyber-security related functions such as firewalls—which the NPRM asserts are part of the information offering—are not perceived by the typical consumer as an important part of what they purchase. Those functions simply help the broadband provider manage, control, or operate its network, and thus fall

¹⁶⁹ *NPRM*, 32 FCC Rcd. at 4442 ¶27.

within the network management exception.¹⁷⁰ This is in keeping with *Computer II*, which made clear that functions “internal to the carrier’s facility,” such as “bandwidth compression techniques, circuit switching, message or packet switching, [and] error control techniques,” that “facilitate economical, reliable, movement of information do[] not alter the nature of the basic service.”¹⁷¹

In *Brand X Servs.*, the Supreme Court upheld the Commission’s decision that cable modem service intermingled telecommunications and information services (like email). Congress defined telecommunications service and information service by “substantially incorporating [the] meaning” of the “Commission’s traditional distinction between basic and enhanced services.”¹⁷² Although cable modem services included a telecommunications component, the FCC found that consumers perceived the transmission component as “part and parcel” of a broader integrated offering that included information services, such as email and DNS.¹⁷³ In evaluating the agency’s interpretation, the Court concluded that the term “offer” was ambiguous and that the statute did not compel the FCC to classify the

¹⁷⁰ Congress recognized that certain information processing functions provided in conjunction with a telecommunications service facilitate the provision of that service, and do not change its nature. The Communications Act thus expressly provides that an “information service” does not include information processing that is used “for the management, control, or operation of a telecommunications system or the management of a telecommunications service.” 47 U.S.C. § 153(24).

¹⁷¹ Amendment of Section 64.702 of the Commission’s Rules and Regulations (*Computer II*), *Tentative Decision and Further Notice of Inquiry and Rulemaking*, 72 FCC 2d 358 (1979) (“*Computer II*”) (Tentative Decision), 77 FCC 2d 384, 420 ¶ 95 (1980) (Final Decision), *aff’d sub. nom. Computer & Comm’n’s Indus. Ass’n v. FCC*, 693 F.2d 198 (D.C. Cir. 1982), *cert. denied*, 461 U.S. 938 (1983).

¹⁷² *Brand X Servs.*, 545 U.S. at 992.

¹⁷³ As the Supreme Court held, consumers perceived the transmission component as “part and parcel” of a broader integrated offering that included information services, such as DNS. *Id.* at 988 (internal citations omitted).

offering of BIAS as either a “telecommunications service” or an “information service.”¹⁷⁴ The Court decided that the FCC’s view on “inextricably intertwined” made sense, if “perhaps just barely.”¹⁷⁵ And as Justice Scalia argued, “DNS ‘is scarcely more than routing information, which is expressly excluded from the definition of ‘information service’ by the telecommunications systems management exception set out in the last clause of section 3(24) of the Act.’”¹⁷⁶ Indeed, third-party performance of these functions illustrates that they are separable from the transmission service that only broadband providers offer.¹⁷⁷ For example, broadband providers and third parties run DNS servers that translate the easier-to-remember text of an email or web address into the numerical IP address actually used for Internet routing (*e.g.*, translate “Google.com” to “216.58.208.36”).¹⁷⁸

The NPRM’s reliance on the Modification of Final Judgment of 1982 (“MFJ”) similarly undercuts its arguments.¹⁷⁹ The MFJ recognized that the Internet access providers offered

¹⁷⁴ *Id.* at 992.

¹⁷⁵ *Id.* at 1003 (Breyer, J., concurring).

¹⁷⁶ *2015 Open Internet Order*, 30 FCC Rcd. 5765-66 ¶ 366 (citing *Brand X Servs.*, 545 U.S. at 1012-13) (Scalia, J., dissenting).

¹⁷⁷ *See, e.g.*, Infoblox, <https://www.infoblox.com/products/> (last visited June 26, 2017) (describing the company’s network management services it offers to broadband providers and organizations as including DNS, caching, and cyber-security service portfolios); Incognito, <https://www.incognito.com/company/> (last visited June 26, 2017) (noting that the company’s network management services are being used by a number of broadband providers including Cable One, Bright House Networks, Mediacom, Midcontinent, and Suddenlink Communications).

¹⁷⁸ *2015 Open Internet Order*, 30 FCC Rcd. at 5765-66 ¶ 366.

¹⁷⁹ *NPRM*, 32 FCC Rcd. at 4436 ¶ 6, 4448 ¶ 41.

both telecommunications and information services,¹⁸⁰ that others relied on those providers' telecommunications services to provide information services,¹⁸¹ and that the telecommunications services included services essential to transmission, including DNS and caching.¹⁸²

5. *Interconnection.*

The NPRM creates a false dichotomy to justify reversing course from the *2015 Open Internet Order* and abandoning all authority and jurisdiction over Internet traffic exchange—or “interconnection.”¹⁸³ Here the Commission's error is similar to its earlier error of conflating Internet access with the Internet.¹⁸⁴ By framing the matter as involving the Internet or the Internet traffic exchange ecosystem, the NPRM can claim it merely course-corrected a regulatory posture that existed long before the *2015 Open Internet Order*. But just as the *2015 Open Internet Order* does not regulate the Internet, but rather the gatekeepers that provide access to the Internet, the *2015 Open Internet Order* does not regulate the Internet traffic exchange ecosystem, but rather only the interconnection practices of a broadband provider where it connects to another network—i.e., the rest of

¹⁸⁰ *United States v. Am. Tel. & Tel. Co.*, 552 F. Supp. 131, 189 (D.D.C. 1982), *aff'd sub nom. Maryland v. United States*, 460 U.S. 1001 (1983) (“All information services are provided directly via the telecommunications network.”).

¹⁸¹ *Id.* at 189 (“[the Operating C]ompanies will carry traffic between the information service providers and their subscribers; their networks will therefore have to be capable of carrying these technologically advanced services; and they will have a financial incentive to create this capability because they will earn access charges for providing this service.”).

¹⁸² *Id.* at 229 (the MFJ definition of telecommunications expressly included “*all* instrumentalities, facilities, apparatus, and services (including the collection, storage, forwarding, switching, and delivery of such information) essential to such transmission.”) (emphasis added).

¹⁸³ *NPRM*, 32 FCC Rcd. at 4448 ¶ 42.

¹⁸⁴ *Id.* at 4442 ¶ 27.

the Internet.¹⁸⁵ As the Commission explained, BIAS “involves the exchange of traffic between a last-mile broadband provider and connecting networks,” and that “[t]he representation to retail customers that they will be able to reach ‘all or substantially all Internet endpoints’ necessarily includes the promise to make the interconnection arrangements necessary to allow that access.”¹⁸⁶

In the face of evidence that consumers were being harmed because of disputes between Internet content companies and broadband providers about congestion with the BIAS providers’ ports that connect to the Internet,¹⁸⁷ the *2015 Open Internet Order* found that Internet access providers had the ability to use “terms of interconnection to disadvantage edge providers and that consumers’ ability to respond to unjust or unreasonable broadband provider practices are limited by switching costs.”¹⁸⁸ The *2015 Open Internet Order* rightfully understood that such behavior would permit a broadband provider to do at the point of interconnection with the Internet what it would be prohibited from doing once the content had entered the broadband provider’s network.

And, contrary to the NPRM’s assertion that on this point the *2015 Open Internet Order* went well beyond agency precedent, even the *2010 Open Internet Order* understood that the point at which a broadband provider’s network connects to the Internet is capable of being used to circumvent the no-blocking rule. The Commission at the time clarified that

¹⁸⁵ *2015 Open Internet Order*, 30 FCC Rcd. at 5693 ¶ 203.

¹⁸⁶ *Id.* at 5693-94 ¶ 204.

¹⁸⁷ *Id.* at 5690 ¶ 199 (“At the end of the day, consumers bear the harm when they experience degraded access to the applications and services of their choosing due to a dispute between a large broadband provider and an interconnecting party.”).

¹⁸⁸ *Id.* at 5694 ¶ 205; *see also supra* Section II.B.2 and II.C.

the no-blocking rule encompasses “all traffic transmitted to or from end users of a broadband Internet access service,” including content, applications, or services.¹⁸⁹ The *2010 Open Internet Order* provided a mechanism to address abusive practices by broadband providers, including interconnection practices: “[s]ome concerns have been expressed that broadband providers may seek to charge edge providers simply for delivering traffic to or carrying traffic from the broadband provider's end-user customers. To the extent that a content, application, or service provider could avoid being blocked only by paying a fee, charging such a fee would not be permissible under these rules.”¹⁹⁰ As Level 3 noted at the time, broadband providers should not be able to circumvent interconnection protections by characterizing the interconnection dispute as an existing peering arrangement outside the scope of the *2010 Open Internet Order*.¹⁹¹

¹⁸⁹ *2010 Open Internet Order*, 25 FCC Rcd. at 17942 ¶ 64.

¹⁹⁰ *Id.* at 17943-44 ¶ 67; *id.* at 17942 ¶ 64 n.200 (noting that the no-blocking rule applied to wherever “in the network blocking could occur”). The Commission noted that it would examine future, not existing, interconnection arrangements. *Id.* at 17943-44 ¶ 67 n.209.

¹⁹¹ See Letter from John M. Ryan, Executive Vice President, Level 3 to Julius Genachowski, Chairman, FCC, GN Docket No. 09-191 (Feb. 17, 2011) (“[I]nterpreting the Open Internet Order to eliminate Commission review if a dispute is over *any* service, simply because it is arbitrarily labeled a ‘backbone service,’ creates a gaping hole in the Commission’s ability to preserve openness in the Internet. If an ISP is free to refuse to accept content requested by *its* subscribers in the metro area where the subscriber resides, but rather can insist that the same content will only be accepted at a point of interconnection 1 mile or 500 miles away where a fee will be charged for the ‘backbone service’ to carry it to the subscriber’s home town, then the prohibition on charging content providers for delivery of content requested by subscribers is eviscerated. The Commission can be assured that if this construct allows ISPs to evade scrutiny by regulators and policymakers, then anticompetitive interconnection schemes will proliferate and be justified simply by labeling the coerced payment a ‘backbone’ service charge. And this outcome will be a direct result of the incentives ISPs have to discriminate against online content that competes with the ISPs’ own content – the same incentives the Commission explicitly outlined and warned against in the Open Internet Order.”).

A broadband provider's interconnection with the Internet is an indispensable part of its BIAS, which means it is rightfully considered part of the Title II service.¹⁹² In asserting otherwise, the NPRM ignores an unassailable truth: without interconnection, there is no Internet access. Interconnection is the means by which broadband providers offer access to content and applications outside of their own network.

Regulation of interconnection is proper because it is an essential part of BIAS, which is within the ambit of the Commission's regulatory powers. The Commission has recognized this: "BIAS involves the exchange of traffic between a broadband Internet access provider and connecting networks" and consumers rely upon interconnection because broadband providers tell their "customers that they will be able to reach 'all or substantially all Internet endpoints.'"¹⁹³ That includes the promise to make the interconnection arrangements necessary to allow that access. The D.C. Circuit upheld the Commission's judgment, holding that the reclassification of broadband services under Title II gave the Commission jurisdiction over "the interconnection arrangements necessary to provide" the broadband service.¹⁹⁴ Before the *2015 Open Internet Order*, the increasing number of interconnection disputes mattered not only because it reflected an exercise of broadband providers' gatekeeper power, but also because the congestion and poor quality

¹⁹² *ISP Interconnection and Its Impact on Consumer Internet Performance, A Measurement Lab Consortium Technical Report*, M-Lab (Oct. 28, 2014), https://www.measurementlab.net/publications/M-Lab_Interconnection_Study_US.pdf (reporting that customers of ISPs such as AT&T and Comcast experienced "sustained performance degradation" over Access/Transit ISP connection points, and noting that "business relationships between ISPs, and not major technical problems, are at the root of the [degradation] we observed").

¹⁹³ *2015 Open Internet Order*, 30 FCC Rcd. at 5610 ¶ 28.

¹⁹⁴ *U.S. Telecom Ass'n*, 825 F.3d at 713.

of Internet service caused by such disputes directly impaired the Internet access offered by the broadband providers.¹⁹⁵ This holds true today. The Commission cannot turn a blind eye on the importance of interconnection, which would create a significant loophole to any no-blocking rule and increase the gatekeeping powers of incumbent broadband providers, achieving the opposite of the Commission’s statutory mandate to foster growth and innovation.

Regulation of interconnection is proper because it is an essential part of BIAS, which is within the scope of the Commission’s regulatory powers. Section 201(b) states: “[a]ll charges, practices, classifications, and regulations for and in connection with [a] communications service, shall be just and reasonable.”¹⁹⁶ For purposes of that section, it does not matter whether the practice, classification, or regulation itself involves a separate telecommunications service. If it is provided “in connection” with the regulated service, then the FCC has authority over it.¹⁹⁷ Indeed, if the practice had to be a telecommunications service in its own right, then the “in connection with” provision would not be needed in the first place.

The Commission only has to look at the record in the 2015 Open Internet proceeding for evidence that broadband providers with significant market power can use

¹⁹⁵ *2015 Open Internet Order*, 30 FCC Rcd. at 5689-92 ¶¶ 199-01.

¹⁹⁶ 47 U.S.C. § 201(b).

¹⁹⁷ *Computer & Comm’ns Indus. Ass’n v. FCC*, 693 F.2d 198, 214 (D.C. Cir. 1982) (holding that FCC had jurisdiction over enhanced services and CPE ancillary to its regulation of interstate wire communications services); *Rural Telephone Coal. v. FCC*, 838 F.2d 1307, 1315 (D.C. Cir. 1988).

interconnection to harm consumers.¹⁹⁸ Based on that record, the Commission could not have simply ignored the effect that interconnection has on consumers' use of broadband. Doing nothing would have gutted the very no-blocking, no-throttling, and no-interference rules that the FCC reasonably determined were necessary to protect consumers.

The Department of Justice and the Commission investigated interconnection issues extensively in several mergers, resulting in conditions being placed on those merged entities to ensure that they would not be able to use interconnection disputes to harm consumers or edge providers.¹⁹⁹

6. *Without Title II, the Commission cannot apply the bright-line rules.*

Verizon remanded the 2010 open Internet rules on one ground: the Act did not permit the imposition of common carrier-like rules on providers that the FCC had not classified as common carriers. The D.C. Circuit held that absent this classification, the rules improperly obligated broadband providers to act as common carriers with respect to edge providers.²⁰⁰ That defect was cured when the FCC classified the transmission component of broadband access as a telecommunications service.

When the Court observed that broadband providers "could" be common carriers with respect to edge providers, it did not also say that they "must" be. Nor did the Court require the FCC to classify a service as telecommunications in both directions before it regulates the conduct of the service provider at either end of the service's path. In short,

¹⁹⁸ *See supra* Section II.B.

¹⁹⁹ *See, e.g., AT&T/DIRECTV Order*, 30 FCC Rcd. at 9215 ¶ 219; *Charter/TWC Order*, 31 FCC Rcd. at 6389 ¶ 131; *Verizon/MCI Order*, 20 FCC Rcd. at Appendix G.

²⁰⁰ *Verizon*, 740 F.3d at 653.

the problem was not that the FCC had misclassified the alleged “service” between carriers and edge providers; it was that the FCC had not classified broadband as a Title II service. The FCC thus found that, whether or not the service provided to edge providers is a telecommunications service, it is subsumed within the promise made by the broadband provider to its end users. This is undoubtedly true, as the record shows that providers of Internet access sell access to the Internet, and all of it. This necessarily encompasses the traffic that flows between edge providers and broadband providers and on to users at their request. Any suggestion that edge providers are unilaterally throwing traffic at broadband providers is mere unsupported rhetoric. Based on that finding, the FCC in turn has found that the edge-facing service is “always a part of, and subsidiary to, the BIAS service.”²⁰¹ That conclusion is in fact supported by *Verizon*, which acknowledged that edge providers may not be the “broadband providers’ principal customers.”²⁰²

Preservation of the bright line rules does not, however, depend on the use of all of the substantive sections of Title II. Echoing Justice Scalia’s dissent in *Brand X*, Judge Srinivasan made that clear that the FCC can “forbear from applying the full range of common carrier regulatory obligations” even if it subjects broadband providers to common carriage.²⁰³ That is what the FCC did in its 2015 *Open Internet Order*.

²⁰¹ *2015 Open Internet Order*, 30 FCC Rcd. at 5748 ¶ 338.

²⁰² *Verizon*, 740 F.3d at 653.

²⁰³ *U.S. Telecom Ass’n*, 855 F.3d 381, 385 (D.C. Cir. 2017) (Srinivasan, J., concurring).

B. Section 706 Provides the Commission with Substantive Power to Remove Impediments to Broadband Deployment.

Section 706 directs the Commission to “encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans,” and to “take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment” if upon inquiry it finds that such capability is not “being deployed to all Americans in a reasonable and timely fashion.”²⁰⁴ This is the basis for the general conduct standard adopted in the 2010 and 2015 *Open Internet Orders*. The 2015 *Open Internet Order* concluded that section 706 is an “independent, complementary source[] of affirmative Commission authority for [the open Internet rules].”²⁰⁵ That interpretation is supported by the virtuous cycle.²⁰⁶ In addition, Section 706 authorizes oversight of interconnection, because as explained above, a broadband provider’s interconnection with the Internet is an indispensable part of its broadband service.²⁰⁷

Section 706 authorizes the Commission to adopt the general conduct standard and does not require BIAS to be classified as common carriers to do so.²⁰⁸ The Commission adopted similar standards in the *Data Roaming Order*, also with the D.C. Circuit’s approval. In that case, the Commission adopted rules that required facilities-based providers of commercial mobile data services to offer data roaming arrangements to other such

²⁰⁴ 47 U.S.C. § 1302(b).

²⁰⁵ 2015 *Open Internet Order*, 30 FCC Rcd. at 5722 ¶ 279.

²⁰⁶ See *supra* Section II.A.1.

²⁰⁷ See *supra* Section III.A.5.

²⁰⁸ 2015 *Open Internet Order*, 30 FCC Rcd. 5722 at ¶ 279 (“We interpret sections 706(a) and 706(b) as independent, complementary sources of affirmative Commission authority for today’s rules.”).

providers on commercially reasonable terms and conditions, subject to certain restrictions. The Commission stated that it would evaluate disputes relating to these rules on case-by-case basis.²⁰⁹ Verizon appealed, arguing that the Commission applied a common carrier rule to non-common carriers. The D.C. Circuit rejected Verizon’s argument, holding that individualized agreements could still be made, and that the factors that the Commission would consider in determining “commercial reasonableness” gave significant flexibility that traditional common carriage rules did not.²¹⁰

The jurisdictional basis for issuing the general conduct standard is identical to the *Data Roaming Order*’s standard. Both rely on a number of factors that provide significant flexibility.²¹¹ The Commission’s mandate under Section 706 provides it with the authority to enforce the general conduct standard.

C. Neither Section 230 nor Section 231 Supports Adopting Open Internet Rules under an Information Services Classification.

The NPRM’s assertion that Section 230 and Section 231 support the conclusion that Internet access is an information service is unwarranted and unsupported.

Section 230 creates federal immunity that protects service providers from liability for information created by third parties and does not affect the classification of Internet

²⁰⁹ Reexamination of Roaming Obligations of Commercial Mobile Radio Serv. Providers and Other Providers of Mobile Data Servs., *Second Report and Order*, 26 FCC Rcd. 5411, 5422 ¶ 85 (2011) (“*Data Roaming Order*”) (“We will assess whether a particular data roaming offering includes commercially reasonable terms and conditions or whether a provider’s conduct during negotiations, including its refusal to offer data roaming, is commercially reasonable, on a case-by-case basis, taking into consideration the totality of the circumstances.”).

²¹⁰ *Cellco Partnership v. FCC*, 700 F.3d 534, 548 (D.C. Cir. 2012).

²¹¹ *2015 Open Internet Order*, 30 FCC Rcd. at 5661-64 ¶¶ 138-45.

access.²¹² This immunity broadly covers providers of “interactive computer services,” which are defined as “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.”²¹³ There is no ambiguity in this section, which states that interactive computer services include both an information service and an access service, that is to say “specifically a service or system that provides access to the Internet.”²¹⁴ The NPRM’s reading of “information service” would misread Section 230 so that it would swell to include any service that provides access to the Internet—allowing the lesser to swallow the greater in direct contravention of the statutory definition.

Internet access services that constitute “telecommunications” fall within the definition of the kinds of services considered to be interactive computer services for purposes of Section 230’s immunity, not because they are “information services” but because Section 230 is written to include both kinds of services. In other words, this section does not say that an information service is an access service. The “or” between “system” and “access” is the disjunctive word that creates the most natural interpretation of the statute as describing two different services—i.e., information service and a service or system that provides access to the Internet.²¹⁵

²¹² 47 U.S.C. § 230(c).

²¹³ 47 U.S.C. § 230(f)(2).

²¹⁴ *Id.*

²¹⁵ The broadband providers have previously argued that Section 230’s definition of “interactive computer service” made clear that “information service” includes an Internet access service. *U.S. Telecom Ass’n*, 825 F.3d at 702-03 (citing *US Telecom Pet’rs’ Br. 33*). The

The final clause of the definition that the NPRM cites—“including specifically a service or system that provides access to the Internet”—does not modify “information service,” as the NPRM suggests for a separate reason. The most natural reading of the definition is that the initial list of “information service,” “system,” and “access software provider” enumerates general categories that fall under “interactive computer services.” The final clause simply provides specific examples—“service or system that provides access to the Internet” and systems provided by libraries and schools—that explicitly fall under the umbrella of “interactive computer systems.” If the final clause were read to modify any of the three items on the list, it would intuitively be the last, not the first. In that reading, the clause would modify “access software provider” to clarify that an access software provider includes a service or system that provides access to the Internet. The NPRM’s reading would also have the impermissible effect of rendering the definition of “interactive computer service” meaningless. Indeed, the D.C. Circuit has already rejected the NPRM’s assertion when it rejected claims that the policy statements found in 230(b) were independently operative.²¹⁶ That holding forecloses the NPRM’s argument.²¹⁷

The NPRM’s emphasis on the Wyden letter is also misplaced. The letter, written by five Senators in 1998, focuses on the need to ensure universal service following the

D.C. Circuit rejected this argument, holding that it is unlikely that Congress would resolve this important statutory question in such an indirect way. *See U.S. Telecom Ass’n*, 825 F.3d at 702-03.

²¹⁶ *Comcast*, 600 F.3d at 654 (“policy statements alone cannot provide the basis for the Commission’s exercise of ancillary authority . . .”).

²¹⁷ *Comcast*, 600 F.3d at 652 (explaining that “the Supreme Court relied on policy statements not because, standing alone, they set out ‘statutorily mandated responsibilities,’ but rather because they did so in conjunction with an express delegation of authority to the Commission . . .”).

enactment of the Telecom Act.²¹⁸ It is not legislative history. Nor does it represent the will of Congress at the time. Instead, it simply made a non-controversial statement that information services were not intended to be regulated as common carriers. That is consistent with the statutory codification between basic and enhanced services.²¹⁹ In other words, the Wyden letter fails to provide the foothold the Commission alleges.

The NPRM's reliance on Section 231 is similarly unavailing. The statute aims to protect minors from accessing harmful content on the Internet, including obscene and pornographic content.²²⁰ As the NPRM acknowledges, the statute was not intended to impair the Commission's ability to regulate basic telecommunications services.²²¹ The NPRM nevertheless asserts that it should be. But the legislative history provides no support for the notion that Congress even considered this section upon which the Commission relies so heavily.²²² Indeed, the definition of "Internet access service" suggests that the statute was trying to avoid duplicate language by adding "[s]uch term does not include telecommunications services," as the statute exempts both "a telecommunications carrier engaged in the provision of a telecommunications service" and "a person engaged in the

²¹⁸ Letter from Senators John Ashcroft, Wendell Ford, John Kerry, Spencer Abraham, and Ron Wyden to the Honorable William E. Kennard, Chairman, FCC, at 1 (Mar. 23, 1998) ("As strong advocates for universal service, we are writing to urge you to carry out the . . . necessary work to appropriately and adequately fund all elements of universal service.").

²¹⁹ See *supra* Section III.A.1.

²²⁰ 47 U.S.C. §§ 231(a)(1), (e)(6).

²²¹ NPRM, 32 FCC Rcd. at 4444 ¶ 32 (citing *Cable Modem Order*).

²²² See, e.g., 144 Cong. Rec. H9903-11 (daily ed. Oct. 7, 1998) (debating whether law was constitutional).

business of providing an Internet access service.”²²³ An interpretation more plausible than the one advanced by the NPRM is that the statute wanted to exempt broadband providers whether they are classified as telecommunications or information services.

IV. OPEN INTERNET RULES ARE NECESSARY TO ADVANCE THE PUBLIC INTEREST

A. Given the Power, Incentive and Ability of Broadband Providers, *Ex Ante* Rules Are Necessary.

The Commission indicates in the NPRM that it would prefer to regulate after violations occur, but by the time a violation has occurred and enforcement is sought, the virtuous cycle will have been broken. “The record on remand continues to convince us that broadband providers . . . have the incentives and ability to engage in practices that pose a threat to Internet openness, and as such, rules to protect the open nature of the Internet remain necessary.”²²⁴ The Commission and the DOJ have also repeatedly found in merger proceedings that incumbent broadband providers have incentive to unfairly disadvantage OVDs, especially as OVDs become a more attractive option for linear video cord-cutters.²²⁵

Ex post enforcement would hamstring nascent industries and companies before they develop. The Commission tried *ex post* rules when it placed conditions on Comcast when it acquired NBC Universal. However, these conditions did nothing to protect Project Concord, an innovative online video distributor that collapsed after over a year of expensive litigation in front of the Commission trying to enforce a merger condition.²²⁶ And only

²²³ 47 U.S.C. §§ 231(b)(1)-(2).

²²⁴ 2015 *Open Internet Order*, 30 FCC Rcd. at 5625 ¶ 75, 5629-34 ¶¶ 80-84.

²²⁵ See *supra* Section II.D.

²²⁶ See Project Concord, Inc. Partial Appeal–Cost Shifting Reply to NBCUniversal Media, LLC Opposition, MB Docket No. 10-56, at 1 (Aug. 30, 2012).

established companies have the resources to survive the lengthy enforcement process. Bloomberg Television had to battle Comcast for nearly three years, including multiple rulings by the Commission and a trip to the Second Circuit that was only cut short when both sides finally settled.²²⁷

Comcast's history of blocking and throttling also demonstrates the harm that occurs to innovation when Open Internet principles are violated. As the Commission recognized when it ordered Comcast to stop interfering with peer-to-peer services, entrepreneurs "are no longer able to design new services and technologies around known protocols and standards, but must spend considerable time and resources in an effort to accommodate Comcast's particular network management practices," which hampers the growth of innovation.²²⁸ In particular, Vuze, a company that used the BitTorrent protocol to distribute videos as a competitive offering to YouTube, had its operations severely disrupted by Comcast's interference practices and wasted resources on trying to circumvent Comcast's interference instead of promoting the virtuous cycle.²²⁹

These examples demonstrate the importance of prohibiting broadband providers from unfairly disadvantaging upstream competitors of their affiliates or preferred partners and why *ex ante* rules are necessary in the fast pace world of Internet innovation.

Broadband providers have argued that *ex ante* rules are not necessary because the harms

²²⁷ See Bloomberg L.P. & Comcast Cable Communications, LLC, *Stipulation of Voluntary Dismissal of Consolidated Appeals with Prejudice*, Nos. 13-3788, 13-4407 (2d Cir. Mar. 25, 2014).

²²⁸ *BitTorrent Order*, 23 FCC Rcd. at 13040 ¶ 20 (2008).

²²⁹ *Id.*

are merely theoretical and the rules will reduce investment.²³⁰ However, some of the broadband providers previously supported Title II classification when they argued that the Commission should classify the transmission component of cable modem services as a telecommunications service.²³¹ Classification under Title II then, as it does now, would have necessarily brought along *ex ante* rules, rendering the sincerity of the complaints about *ex ante* rules suspect.

The NPRM's assertion that antitrust law would curb anticompetitive conduct and should be considered a potential alternative to *ex ante* regulations is misplaced.²³² Antitrust law is an imperfect remedy in the fast-paced world of broadband providers competing with edge providers, requiring extensive litigation and delay in reaching a resolution. The Supreme Court has recognized that regulation can be preferable to antitrust remedies.²³³ Removing the Title II rules and relying upon antitrust enforcement will guarantee prolonged litigation and outcomes such as Project Concord and Bloomberg,

²³⁰ Of course, Comcast's challenge to the *BitTorrent Order* demonstrates that broadband providers will fight just as vigorously in an *ex post* enforcement regime, even when they have admitted to the harm. *See, e.g., BitTorrent Order*, 23 FCC Rcd. at 13051 ("Comcast admit[ted] that it interfere[d] with about ten percent of uploading peer-to-peer TCP connections, and independent evidence show[ed] that Comcast's interference may be even more prevalent.").

²³¹ *See, e.g.,* Comments of Verizon Communications, GN Docket No. 00-185, at 2 (Dec. 1, 2000) ("The Act defines residential broadband access—whether provided by a local telephone company or a cable operator—as a telecommunications service subject to 'common carrier' regulation."); Comments of Qwest Communications International Inc., GN Docket No. 00-185, at 2 (Dec. 1, 2000) ("the transport portion of cable modem service is a telecommunications service under the 1996 Act").

²³² *NPRM*, 32 FCC Rcd. at 4460 ¶ 78.

²³³ *See Turner Broad. Sys., Inc. v. FCC*, 520 U.S. 180, 222-23 (1997) ("Congress could conclude, however, that the considerable expense and delay inherent in antitrust litigation . . . would make these remedies inadequate substitutes for guaranteed carriage.").

where only well-established companies can afford to litigate and innovators are driven out of business. And by proposing antitrust enforcement, the NPRM contradicts itself—on the one hand, it disavows the case-by-case approach of the no unreasonable discrimination rule, while on the other, it promotes the more expensive and lengthy case-by-case approach of antitrust enforcement.

B. The General Conduct Rule Is Essential to the Creation of New Competitors.

The general conduct rule is essential to preventing consumer harm. The FCC has repeatedly found that broadband providers, acting as gatekeepers, have powerful incentives to block competitors to their own services, which will in turn kill consumer demand and lead to lower investment.²³⁴ Demand for content creates the incentive to invest in infrastructure; however, if broadband providers discriminate against unaffiliated new entrant edge providers outside of the bright-line rules, these new entrants will not be able to compete effectively. That will only harm consumers, who will be stuck in a large broadband provider’s ecosystem with high switching costs, few if any alternatives and no competition to drive down costs and promote innovation.

²³⁴ See, e.g., *2015 Open Internet Order*, 30 FCC Rcd. at 5608 ¶ 20; see also *Comcast/NBCU Order*, 26 FCC Rcd. at 4240 ¶ 3 (“[Comcast-NBCU] would also have the incentive and ability to hinder the development of rival online video offerings and inhibit potential competition from emerging online video distributors that could challenge Comcast’s cable television business.”); *Charter/TWC Order*, 31 FCC Rcd. at 6343 ¶ 39 (“We find that New Charter will have greater incentives to harm those OVDs that serve as a substitute for, and therefore compete with, New Charter’s video services.”); *DOJ Comcast/NBCU Complaint* ¶ 36 (“Comcast and other MVPDs recognize the impact of OVDs. Their documents consistently portray the emergence of OVDs as a significant competitive threat.”); *DOJ Charter/TWC Complaint* ¶ 27 (“Large cable companies such as Charter and TWC, which rely on their video businesses to deliver significant profit margins, have observed these developments with growing concern. In numerous internal documents, Defendants show a keen awareness of the competitive threat that OVDs pose.”).

That the open Internet rules may result in “free” services under the two-sided market claim is not a reason to abolish those rules. The two-sided market theory posits that the market for broadband has two sides—a retail service provided to consumers and a service to edge providers.²³⁵ But as FCC and DOJ precedent demonstrates, competitors who could bring lower prices (maybe lower overall), more output, and higher quality are being burdened with anti-competitive costs. Take for example the recent launches of OTT offerings by DISH (Sling TV), Sony (PlayStation Vue) and Google (YouTube TV).²³⁶ These OTT offerings spur innovation and often bring lower prices and higher quality than current offerings by incumbent broadband providers.²³⁷ But absent the general conduct rule,

²³⁵ See *Verizon*, 740 F.3d at 653.

²³⁶ See Todd Spangler, *Sony PlayStation Vue Launches ‘Slim’ TV Bundles Nationwide Without Live Broadcast Channels*, *Variety* (Mar. 14, 2016), <http://variety.com/2016/digital/news/sony-playstation-vue-nationwide-slim-tv-1201729235/> (offering a full TV package including local broadcast TV for \$40 per month in seven markets and a \$30 per month “skinny” package nationwide excluding local broadcast channels); Nick Pino, *YouTube TV: Everything You Need to Know About the New TV Streaming Service*, *Tech Radar* (May 22, 2017), <http://www.techradar.com/news/youtube-tv-everything-you-need-to-know-about-the-new-tv-streaming-service> (offering live local TV channels for streaming and unlimited recording for \$35 a month); *Sling TV to Launch Live, Over-the-Top Service for \$20 per Month; Watch on TVs, Tablets, Computers, Smartphones, Game Consoles*, *Sling TV to Launch Live, Over-the-Top Service for \$20 per Month; Watch on TVs, Tablets, Computers, Smartphones, Game Consoles*, DISH (Jan. 5, 2015), <http://about.dish.com/press-release/products-and-services/sling-tv-launch-live-over-top-service-20-month-watch-tvs-tablets> (offering live TV, video-on-demand, and certain sports networks, including ESPN, for \$20 per month).

²³⁷ See, e.g., Natt Garun, *Comcast’s Xfinity Stream App Offers Subscribers Live TV and DVR Content on the Go*, *The Verge* (Feb. 15, 2017), <https://www.theverge.com/2017/2/15/14628010/comcast-xfinity-stream-app-dvr-live-tv-february-28> (offering a mobile app option to Xfinity subscribers that pay for a traditional cable service package); Jacob Kastrenakes, *DirectTV Now appears to Be a Complete Mess*, *The Verge* (Jan. 13, 2017), <https://www.theverge.com/2017/1/13/14257936/directv-now-errors-complaints-att> (“Subscribers have complained of being unable to watch shows, frequent interruptions, missing features, billing issues, and more pretty much nonstop since the service’s November 30th launch. Many say it’s simply unusable.”); Malcolm Owen, *Verizon*

broadband providers have an incentive to unfairly disadvantage these competitive offerings.

C. The Commission’s Predictive Power Has Spurred Innovation and Competition.

Where the Commission has acted to curb gatekeeper abuse, the result has been increased innovation and competition.

In *Computer II* the Commission created the “basic” and “enhanced” services dichotomy, mandated that a telecommunications carrier offering enhanced services must do so through a separate entity, and restricted the ability of such a carrier to bundle telecommunications services with customer premises equipment. Under that framework, the Commission “successfully unbundled and deregulated customer premises equipment, which as a result, emerged as a multi-billion dollar competitive and highly innovative industry.”²³⁸

In *Carterfone*, the Commission adopted rules which permitted foreign attachments to be connected to a carrier’s network.²³⁹ Those rules “made possible a network equipment business that today generates billions of dollars in annual revenues. Even more important, it opened up the possibility of attaching devices to the phone network that offered new and

Reportedly Plans to Launch Own ‘Over-The-Top’ Internet TV Service, Apple Insider (Mar. 31, 2017), <http://appleinsider.com/articles/17/03/31/verizon-reportedly-plans-to-launch-own-over-the-top-internet-tv-service>.

²³⁸ Lee L. Selwyn & Helen E. Golding, *Revisiting the Regulatory Status of Broadband Internet Access: A Policy Framework for Net Neutrality and an Open Competitive Internet*, 63 Fed. Comm. L.J. 91, 102–03 (2010).

²³⁹ *Carterfone*, 13 FCC 2d at 423.

different functionality The consumer Internet could not have happened” without those rules.²⁴⁰

And in classifying Commercial Mobile Radio Service providers as common carriers, the Commission forbore from several provisions of Title II.²⁴¹ As the Commission later concluded, “these deregulatory actions have contributed significantly to the impressive growth of competition in CMRS markets . . . [and] substantial progress has been made towards a truly competitive mobile telephone marketplace, resulting in lower prices and more attractive service offerings for consumers.”²⁴²

The NPRM’s current claim that it exercises its “predictive judgment that reversing the Title II classification and restoring broadband Internet access service to a Title I service will increase investment” is, at minimum, wrong.²⁴³

²⁴⁰ Kevin Werbach, *Breaking the Ice: Rethinking Telecommunications Law for the Digital Age*, 4 J. Telecomm. & High Tech. L. 59, 82–84 (2005).

²⁴¹ Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Servs., *Second Report and Order*, 9 FCC Rcd. 1411, 1463-93 ¶¶ 124-219 (1994), overturned by Petition of Arizona Corporation Commission, to Extend State Authority over Rate and entry Regulation of All Commercial Mobile Radio Servs., *Report and Order and Order on Reconsideration*, 10 FCC Rcd. 7824 (1995).

²⁴² Personal Commc’ns Indus. Assoc.’s Broadband Personal Commc’ns Servs. Alliance’s Petition for Forbearance for Broadband Pers. Commc’ns Servs., *Memorandum Opinion and Order and Notice of Proposed Rulemaking*, 13 FCC Rcd. 16857 ¶ 8 (1998).

²⁴³ It also violates the APA. The Commission impermissibly relies on its “predictive judgment.” *NPRM*, 32 FCC Rcd. at 4449-50 ¶ 46. While courts give deference to agency rules based on reasonable “predictive judgments” on matters within their field of expertise, the Commission fails to demonstrate that predictive judgments in NPRMs are reasonable and permissible. *See EarthLink v. FCC*, 462 F.3d 1, 12 (D.C. Cir. 2006). To the contrary, to decide first and ask second conflicts with the Commission’s obligation to engage in reasoned decision-making by “identify[ing] all relevant issues, [giving] them thoughtful consideration duly attentive to comments received, and formulat[ing] a judgment which rationally accommodates the facts capable of ascertainment and the policies slated for effectuation.” *Int’l Ladies’ Garment Workers’ Union v. Donovan*, 722 F.2d 795, 822 (D.C. Cir.

D. The NPRM's Proposal Will not Protect Consumers Sufficiently.

While the NPRM proclaims that reversing Title II classification will benefit consumers, the only benefit it attempts to claim is increased investment by large broadband providers.²⁴⁴ The NPRM seeks comments on the effects of regulatory uncertainty on “innovation,” which it views almost exclusively to mean investment by large broadband providers.²⁴⁵ But there is more to innovation than capital expenditures. The NPRM fails to ask what the effect of uncertainty will be on edge innovators who will no longer know whether their customers will be able to access their content and services. An

1983) (quoting *Telocator Network of America v. FCC*, 691 F.2d 525, 544 (D.C. Cir. 1982)); see also *Cellnet Comm., Inc. v. FCC*, 149 F.3d 429, 441 (6th Cir. 1998). Indeed, while the Commission cites USTelecom’s deference to predictive judgments on the investment effects of reclassification made in the Open Internet Order, *NPRM*, 32 FCC Rcd. at 4452-53 ¶ 53, those predictive judgments stemmed from evidence reflected in the proceeding’s record and were contained in the final order, not the NPRM. See *2015 Open Internet Order*, 30 FCC Rcd. at 5791 ¶ 410; see also *Cincinnati Bell Telephone Co. v. FCC*, 69 F.3d 752, 763 (6th Cir. 1995) (refusing to defer to FCC predictive judgment based on insufficient record support). The more analogous Open Internet NPRM, meanwhile, relied on no predictive judgments. See *Protecting and Promoting the Open Internet, Notice of Proposed Rulemaking*, 29 FCC Rcd. 5561 (2014).

²⁴⁴ Even the NPRM’s preferred measure of choice, capital expenditures by large broadband providers, shows that investments have *increased* since the Open Internet Order was released, with capital investments up 13.6% year-over-year in the first quarter of 2017. Kamran Asaf, *Cable Q1 CapEx steady as MSOs gear up for broadband upgrades in 2017*, SNL Kagan, a Media Research Group within the TMT offering of S&P Global Market Intelligence (June 1, 2017) (data excluding Charter); see also *Verizon*, 740 F.3d at 644 (“The Commission’s prediction that the Open Internet Order regulations will encourage broadband deployment is, in our view, both rational and supported by substantial evidence.”); S. Derek Turner, *It’s Working: How the Internet Access and Online Video Markets Are Thriving in the Title II Era*, Free Press, 4 (May 2017), <https://www.freepress.net/sites/default/files/resources/internet-access-and-online-video-markets-are-thriving-in-title-II-era.pdf> (finding that “the total capital investment by publicly traded ISPs was 5 percent higher during the two-year period following the FCC’s Open Internet vote than it was in the two years prior to the vote.”).

²⁴⁵ *NPRM*, 32 FCC Rcd. at 4451 ¶ 49.

innovative edge provider may be unable to obtain funding until VCs see the effect of the loss of the open Internet rules.²⁴⁶ Existing edge providers may withhold expanding their offerings until they determine how broadband providers will act in a rule-less world.

Although the NPRM gestures at potential unnamed benefits to consumers, it ignores the very real risks that the competition unleashed over the past two years will be removed if the Title II rules are withdrawn.

The NPRM also repeatedly tries to frame the harms that the rules prevent as hypothetical or anecdotal.²⁴⁷ Such an approach ignores the vast record developed through multiple proceedings that have demonstrated that the harms dismissed as hypothetical by the NPRM have repeatedly occurred (and, as explained above, will likely occur if no rules were in place).²⁴⁸

²⁴⁶ Letter from 30 Venture Capitalists to Honorable Julius Genachowski, Chairman, FCC, GN 09-191 (Oct. 21, 2009) (submitted by Open Internet Coalition) (“As business investors in technology companies, we have first-hand experience with the importance of a guaranteeing an open market for new applications and services on the Internet. Clear rules to protect and promote innovation at the edges of the Internet will reinforce the core principles that led to its extraordinary social and economic benefits. Open markets for Internet content will drive investment, entrepreneurship and innovation.”).

²⁴⁷ *NPRM*, 32 FCC Rcd. at 4452 ¶ 50, 4460 ¶¶ 76-77.

²⁴⁸ *See, e.g.*, Letter from Markham C. Erickson, Counsel to Netflix, Inc. to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, Attach. at 2 (Aug. 1, 2014) (asserting that “[i]n the case of Comcast, Netflix purchased all available transit to reach Comcast’s network. Every single one of those transit links to Comcast was congested (even though the transit providers requested extra capacity). The only other available routes into Comcast’s network were those where Comcast required an access fee.”); Letter from Robert M. Cooper, Counsel to Cogent, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1 (filed Mar. 19, 2014); Letter from Joseph C. Cavender, Level 3, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28, at 1 (May 13, 2014) (asserting that “some of the biggest consumer broadband ISPs have allowed the interconnections between their networks and backbone providers like Level 3 to congest, causing packets to be dropped and harming their own users’ Internet experiences”); *2010 Open Internet Order*, 25 FCC Rcd. at 17926 ¶ 36 n.111 (acknowledging a 2008 study by the Max Planck Institute that

Over the past decade, despite the FCC’s longstanding prohibition, broadband access providers have attempted in various ways to block, throttle, or otherwise impair their users’ access to some Internet content, often because it competed with these providers’ own services.²⁴⁹ Indeed, the Commission has directly taken action when companies have not been transparent about their network practices, such as not disclosing to consumers unlimited data packages also came with slower than advertised Internet speed.²⁵⁰ Examples abound from the record.²⁵¹ A mobile wireless provider blocked customers’

“revealed significant blocking of BitTorrent applications in the United States” by telecom providers such as Comcast and Cox Communications).

²⁴⁹ *2015 Open Internet Order*, 30 FCC Rcd. at 5628 ¶ 79 & n.123.

²⁵⁰ *See, e.g.*, Press Release, *FCC Plans to Fine AT&T \$100 Million for Misleading Consumers About Unlimited Data Plans, Violating Transparency Obligations*, FCC (June 17, 2015), https://apps.fcc.gov/edocs_public/attachmatch/DOC-333877A1.pdf (fining AT&T Mobility \$100 million for allegedly “severely slow[ing] down the data speeds for customers with unlimited data plans and . . . fail[ing] to adequately notify its customers. . .”).

²⁵¹ *Verizon*, 740 F.3d at 648-49 (“Furthermore, the Commission established that the threat that broadband providers would utilize their gatekeeper ability to restrict edge-provider traffic is not, as the Commission put it, ‘merely theoretical.’ In support of its conclusion that broadband providers could and would act to limit Internet openness, the Commission pointed to four prior instances in which they had done just that. These involved a mobile broadband provider blocking online payment services after entering into a contract with a competing service; a mobile broadband provider restricting the availability of competing VoIP and streaming video services; a fixed broadband provider blocking VoIP applications; and, of course, Comcast’s impairment of peer-to-peer file sharing that was the subject of the *Comcast Order*. Although some of these incidents may not have involved ‘adjudicated findings of misconduct,’ as Verizon asserts, that hardly means that no record evidence supports the Commission’s conclusion that the incidents had in fact occurred Rather, as the Commission explained, these incidents—which occurred ‘notwithstanding the Commission’s adoption of open Internet principles,’ Commission enforcement proceedings against those who violated those principles, and specific Commission orders ‘requir[ing] certain broadband providers to adhere to open Internet obligations,’ buttressed the agency’s conclusion that broadband providers’ incentives and ability to restrict Internet traffic could produce ‘[w]idespread interference with the Internet’s openness’ in the absence of Commission action. Such a ‘problem’ is doubtless ‘industry-wide.’”) (citations omitted).

access to competing mobile payment systems.²⁵² A telephone company broadband provider was accused of blocking access to competing VoIP applications. *Id.* A broadband provider secretly disrupted certain file sharing services used by its subscribers to distribute video (in potential competition with the broadband provider’s own video offerings). *Id.* Providers have also taken, or threatened to take, other actions that have the same effect on consumers as blocking or throttling. In an effort to demand access fees from backbone or edge providers, certain broadband providers have restricted the capacity of their networks at the point where those networks interconnect with the broader Internet. One such dispute in 2013-2014 led to drastic reductions in millions of Americans’ access to Netflix and other content.²⁵³ The evidence is overwhelming, which is why the *Verizon* court upheld the Commission’s determination that, without open Internet rules, broadband providers would have “powerful incentives” and “the technical and economic ability” to disrupt the virtuous cycle of Internet innovation and investment by engaging in conduct that threatens Internet openness.²⁵⁴

A world without the open Internet rules under Title II is one where the fundamental forces driving the growth of the Internet would risk being disrupted. If the rules do not exist, then innovation and investment at the edge would be negatively affected.²⁵⁵ The digital app economy, video over broadband, VoIP, cloud computing, and mobile e-

²⁵² *2010 Open Internet Order*, 25 FCC Rcd. at 17925 ¶ 35.

²⁵³ *See, e.g., 2015 Open Internet Order*, 30 FCC Rcd. at 5610-11 ¶ 30, 5629-30 ¶ 80 & n.128.

²⁵⁴ *Verizon*, 740 F.3d at 645-46; *see also 2010 Open Internet Order*, 25 FCC Rcd. at 17925-27 ¶¶ 35-37.

²⁵⁵ *2010 Open Internet Order*, 25 FCC Rcd. at 17911 ¶ 14; *2015 Open Internet Order*, 30 FCC Rcd. at 5608 ¶ 20.

commerce have all grown at a rapid pace, driving investment and consumer choice.²⁵⁶

Should the Commission withdraw the rules, consumers will suffer when that virtuous cycle is disrupted by broadband providers looking to strong arm edge providers that compete with broadband providers for certain services and all edge providers in general.

The NPRM also questions why the general conduct rule is necessary and proposes to eliminate it entirely.²⁵⁷ The general conduct rule is intended to be flexible to capture behavior that currently cannot be predicted and may develop as companies attempt to find ways around the bright-line rules.²⁵⁸ Rather than requiring a proliferation of rules to try to capture every possible evasion of the open Internet rules or endless adjudications, the general conduct standard allows the Commission to investigate issues as they arise and extract general principles that help guide companies. Unfairly disadvantaging unaffiliated content and services may be best addressed by the general conduct standard.

The NPRM also proposes to eliminate the no-blocking rule because of voluntary commitments from broadband providers.²⁵⁹ However, the record in the 2015 Open Internet proceeding was clear that most parties, including broadband providers, thought a no-blocking rule was necessary.²⁶⁰ Although the NPRM floats the idea that a voluntary commitment could be satisfactory, it ignores that Verizon, in oral arguments, stated its

²⁵⁶ *2015 Open Internet Order*, 30 FCC Rcd. at 5625-26 ¶ 76.

²⁵⁷ *NPRM*, 32 FCC Rcd. at 4459 ¶¶ 74-75.

²⁵⁸ *2015 Open Internet Order*, 30 FCC Rcd. at 5659 ¶ 135.

²⁵⁹ *NPRM*, 32 FCC Rcd. at 4461 ¶ 80.

²⁶⁰ *2015 Open Internet Order*, 30 FCC Rcd. at 5648 ¶ 112.

desire to be able to charge fees to edge providers.²⁶¹ It also ignores that broadband providers would only voluntarily abide by such commitments for a few years at most.²⁶² Even though Verizon has since retreated from that position, it is still relevant in demonstrating that voluntary commitments can be quickly discarded. The NPRM ignores the fact that broadband providers have been repeatedly found to have incentives to block or interfere with traffic that competes with their own affiliated content or services.

The ban on prioritization also comes under fire in the NPRM.²⁶³ The Commission has previously found that prioritization has unique harms, such as degraded performance, that results from needing to prioritize some traffic over other traffic.²⁶⁴ The NPRM does not address the potential long-term effects of paid prioritization, which would shift consumers away from the ordinary Internet and onto prioritization plans and discourage broadband providers from making network investments that would reduce scarcity and, accordingly, increase their ability to sell prioritized delivery—resulting in the breakdown of the virtuous circle. In addition, the risks of prioritization are outlined extensively in economic literature that the Commission consulted in the 2015 proceeding.²⁶⁵ The Chairman has repeatedly stated that he wants the Commission to make decisions grounded in economics,

²⁶¹ Verizon Oral Arg. Tr. at 31, *Verizon v. FCC*, 740 F.3d 623 (“[B]ut for [the open Internet Rules] we would be exploring those commercial arrangements.”).

²⁶² See Application of Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership for Consent to the Transfer of Control of Licenses and Authorizations, MB Docket No. 15-149, at 18-19 (filed June 25, 2015) (committing to abide by the open Internet rules of no paid prioritization or zero rating and agreeing to engaging in reasonable and fair interconnection negotiations for three years).

²⁶³ *NPRM*, 32 FCC Rcd. at 4462 ¶¶ 85-86.

²⁶⁴ *2015 Open Internet Order*, 30 FCC Rcd. at 5653-55 ¶ 126.

²⁶⁵ *Id.*

and we agree with him, yet the volume of economic literature on this topic has been largely ignored in the NPRM.²⁶⁶

The NPRM similarly attacks the general idea of the bright-line rules and the throttling rule. The history of harms that have been well developed in the records of the 2010 and 2015 Orders demonstrate that the bright-line rules are necessary, as the D.C. Circuit has repeatedly found in upholding the Commission’s judgment.

The NPRM proposes to amend the definition of “reasonable network management” to remove the requirement that the exception only applies if it is used for a “technical management justification rather than other business justifications.”²⁶⁷ The NPRM skims over why that provision was added, though. In 2014, Verizon attempted to use the “reasonable network management” exception as a way to place limits on grandfathered “unlimited” data plans once those plans reached a certain level of usage each month.²⁶⁸ “Reasonable network management” could be a pretextual tool to use deep packet inspection to facilitate paid prioritization.²⁶⁹ The record indicated how broadband providers have developed sophisticated tools that allow them to analyze traffic in real time, heightening the danger that an overly broad “reasonable network management” standard would lead to abuse.²⁷⁰ Moreover, other experts have noted that in other countries and in

²⁶⁶ *NPRM*, 32 FCC Rcd. at 4494 (Statement of Chairman Ajit Pai) (“Indeed, the economic analysis in the *Title II Order* was called ‘wrong, unsupported, and irrelevant’—by the FCC’s own chief economist at the time.”).

²⁶⁷ *NPRM*, 32 FCC Rcd. at 4464 ¶ 93.

²⁶⁸ *2015 Open Internet Order*, 30 FCC Rcd. at 5611 ¶ 33.

²⁶⁹ *Id.* at 5634 ¶ 85.

²⁷⁰ Comments of the Internet Association, GN Docket 14-28, at 13-14 (July 14, 2014).

the United States, broadband providers, when given the chance to use reasonable network management as an excuse, will downgrade some forms of content over others.²⁷¹ To remove the technical management requirement would invite abuse that would end up swallowing the exception.

V. THE NPRM HAS NOT SUFFICIENTLY EXPLAINED A COST-BENEFIT METHODOLOGY

A. The Administrative Procedure Act Requires that the Commission Issue Another NPRM Detailing Any Cost-Benefit Test Before Proceeding to Apply It.

The NPRM suggests that the Commission will apply a cost-benefit analysis (“CBA”) to determine whether Title II should continue to be applied and whether to maintain rules of the kind promulgated in the 2015 Open Internet Order.²⁷² The Commission also indicates that the Commission may follow standard federal practices for the conduct of a CBA as set forth in Section E of OMB’s Circular A-4.²⁷³ And it discusses different aspects of how commenters could address comments to the Commission as to both benefits and costs.

But the Commission very expressly does not decide whether to conduct a CBA nor does it reveal the methodology that will constitute any CBA it may ultimately use. The Commission rightly wishes to make an informed judgement on the very important, complicated and technical questions of whether to use a CBA in this context and seeks input as to the design of any such CBA. But the consequence of seeking comments on virtually every detail of a CBA is also obvious: the Commission must issue another notice in

²⁷¹ Barbara van Schewick and Morgan N. Weiland, *New Republican Bill is Network Neutrality in Name Only*, Stan. L.R. (Jan. 2015), <https://www.stanfordlawreview.org/online/new-republican-bill-is-network-neutrality-in-name-only/>.

²⁷² *NPRM*, 32 FCC Rcd. at 4468 ¶ 105.

²⁷³ *Id.*

which it decides whether and how to conduct a CBA and seek comment on that decision before it may move to final decision on any of the issues raised by the NPRM.²⁷⁴ That nothing about a CBA has been decided is obvious from the number and scope of the inquiries the NPRM includes. Thus, the Commission:

- “proposes,” but does not decide, to conduct a CBA,
- asks “whether conducting a CBA is appropriate and that the decision [to do so] is likely to be economically significant,”²⁷⁵
- “seek[s] comments on how the CBA should be conducted to appropriately separate or combine the analysis of each piece discussed above,”²⁷⁶
- “seek[s] comment generally on the importance of conducting a CBA,”²⁷⁷
- similarly seeks comment on the design of the CBA as needed to address “the interaction between the Commission’s public interest standard and a weighing of the costs and benefits,”²⁷⁸

²⁷⁴ See *Connecticut Light & Power Co. v. Nuclear Regulatory Comm’n*, 673 F.2d 525, 530 (D.C. Cir. 1982) (“The purpose of the comment period is to allow interested members of the public to communicate information, concerns, and criticisms to the agency during the rule-making process. If the notice of proposed rule-making fails to provide an accurate picture of the reasoning that has led the agency to the proposed rule, interested parties will not be able to comment meaningfully upon the agency’s proposals.”). This is not to say that all issues are appropriately analyzed under a CBA.

²⁷⁵ *NPRM*, 32 FCC Rcd. at 4468-69 ¶ 106.

²⁷⁶ *Id.* at 4468 ¶ 105. The reference to “each piece” means that the Commission is asking how its CBA should be designed to treat each issue it notes, which includes: (i) maintaining the classification of broadband Internet; (ii) access service as a telecommunications service; (iii) maintaining the Internet conduct rule; (iv) maintaining the no-blocking rule; (v) maintaining the no-throttling rule; (vi) maintaining the ban on paid prioritization; (vii) maintaining the transparency rules; and (viii) any other and policy changes raised in the *NPRM*.

²⁷⁷ *Id.*

- inquires as to whether it should follow Circular A-4 generally,²⁷⁹
- drills down with an inquiry asking for identification of “any specific portions of Circular A-4 where the Commission should diverge from the guidance provided” and requests “alternatives” to that guidance,²⁸⁰
- while discussing the creation of baseline scenarios, requests “comment on the appropriate baseline scenarios that should be used and on [the Commission’s] proposed course of action” in the creation of baseline scenarios,²⁸¹
- requests analysis on how “uncertainty around the timing of costs and benefits should interact in the analysis,”²⁸²
- in its discussion of costs, specifically seeks comments on “particular methods” to be used to estimate network-related costs;²⁸³ asks “should our CBA incorporate [societal costs] into the analysis”;²⁸⁴ requests comment on whether the Commission should “use a multiplier to account for economic activity missed due to tempered investment;” (and if so, “what are the appropriate multipliers to use”²⁸⁵) and

²⁷⁸ *Id.* at 4468 ¶ 105.

²⁷⁹ *Id.* at 4469 ¶ 107.

²⁸⁰ *Id.*

²⁸¹ *Id.* at 4469 ¶ 108.

²⁸² *Id.* at 4469 ¶ 109.

²⁸³ *Id.* at 4469-70 ¶ 110.

²⁸⁴ *Id.* at 4470 ¶ 111.

²⁸⁵ *Id.* at 4470 ¶ 112.

requests help in determining “how we may incorporate [other costs] into [its] analysis,”²⁸⁶ and

- in its discussion of benefits, asks for discussion of what economic benefits should be considered in the CBA, noting that “[t]here are various theoretical possibilities for economic benefits created by the current policies.”²⁸⁷

In other words, the Commission has not decided definitively whether to use a CBA, has decided nothing about the design of or methodologies to be included within a CBA and has not decided whether, or to what extent, it will follow OMB Circular A-4. It seeks comment on a variety of specific methodologies that it may use, such as the type of multiplier it could use to calculate societal costs, but it decides on nothing.

By seeking comment on every aspect of a potential CBA, including methodologies, assumptions, and data sets, as well by asking whether it should even use a CBA at all, the Commission would commit fatal error if it were to simultaneously adopt and apply a CBA without the opportunity to separately comment on its selection. That conclusion flows inevitably from core tenets of administrative law and from the specific jurisprudence concerning the process required to accompany an agency’s use of a CBA. The Administrative Procedure Act requires an agency “to make its views known to the public in a concrete and focused form so as to make criticism or formulation of alternatives possible.”²⁸⁸ This lack of notice about the CBA raises the possibility that the Commission will “use the rulemaking process to pull a surprise switcheroo on regulated entities” by

²⁸⁶ *Id.* at 4470 ¶ 113.

²⁸⁷ *Id.* at 4470 ¶ 114.

²⁸⁸ *HBO, Inc. v. FCC*, 567 F.2d 9, 36 (D.C. Cir. 1977) (per curiam).

relying upon a CBA that parties had no chance to analyze.²⁸⁹ The Commission asks only open-ended questions that fail to put parties on notice as to what factors the Commission will consider in its CBA, thus failing the “concrete and focused form” required by the APA.²⁹⁰ The “range of alternatives” that the Commission will consider are not mentioned and are left to the parties to guess, which will not “lead to better-informed agency decision making.”²⁹¹ This lack of notice is fatal to any rule that relies upon CBA.²⁹² In short, the NPRM is correct to ask whether and how to conduct a CBA but would be wrong to think that it has given notice adequate to allow it to implement a CBA without further notice and comment.

Of particular importance are those cases in which “courts require the agency to provide more information about the [CBA’s] methodology or assumptions” and, in so doing, both “incentivize more transparent [CBAs] that provide notice (and an opportunity to comment)” and through “increased disclosure of [CBA] methodologies . . . make it easier for courts to substantively review” CBAs.²⁹³ For example, the D.C. Circuit found that the “complete lack of explanation for an important step in the agency’s analysis was arbitrary

²⁸⁹ *Environmental Integrity Project v. EPA*, 425 F.3d 992, 996 (D.C. Cir. 2005).

²⁹⁰ *HBO*, 567 F.2d at 36.

²⁹¹ *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 549 (D.C. Cir. 1983); *see also Prometheus Radio Project v. FCC*, 652 F.3d 431, 450-51 (D.C. Cir. 2011).

²⁹² *See Florida Power & Light Co. v. United States*, 846 F.2d 765, 771 (D.C. Cir. 1988) (“Such notice must not only give adequate time for comments, but also must provide sufficient factual detail and rationale for the rule to permit interested parties to comment meaningfully.”).

²⁹³ Caroline Cecot and W. Kip Viscusi, *Judicial Review of Agency Cost-Benefit Analysis*, 22 *Geo. Mason L. Rev.* 575, 602 (2015).

and capricious” where the agency failed to reveal the methodology it would use to measure truck operator fatigue.²⁹⁴

Similarly, the court rejected the Department of Energy’s use of a discount rate of 10% in the context of appliance energy efficiency standards because the choice of the discount rate was “fatally unexplained.”²⁹⁵ Here the Commission walks down the same procedurally-flawed path, asking specifically how it should discount future benefits and costs, but of course, not yet able to ask for comment on its selected result, much less justify it. Nothing could be more arbitrary or capricious.²⁹⁶ The NPRM suggests—but does not decide—that the CBA, if adopted, would contradict the OMB Circular in multiple ways, but it is as yet impossible to know precisely which methods would be actually employed by the Commission. For example, the Circular requires that a CBA discuss the statutory requirements “that affect the selection of regulatory approaches.”²⁹⁷ As the NPRM admits, though, its standard is the “public interest,”²⁹⁸ and it does not have the traditional language

²⁹⁴ *Owner-Operator Indep. Drivers Ass’n v. FMCSA*, 494 F.3d 188, 204 (D.C. Cir. 2007); see also *Nat’l Ass’n of Home Builders v. EPA*, 682 F.3d 1032, 1040 (D.C. Cir. 2012) (“[W]hen an agency decides to rely on a cost-benefit analysis as part of its rulemaking, a serious flaw undermining that analysis can render the rule unreasonable.”).

²⁹⁵ *Natural Resources Defense Council, Inc. v. Herrington*, 768 F.2d 1355, 1414 (D.C. Cir. 1985). The court specifically rejected the agency’s explanation that it had simply followed OMB’s recommendation, *id.* at 1413, and it found other failures in the lack of explanation about, for example assumptions contained in the model to estimate certain costs. *Id.* at 1419-22.

²⁹⁶ See *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (“[T]he agency must examine the relevant data and articulate a satisfactory explanation for its action including a ‘rational connection between the facts found and the choice made.’”) (quoting *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1962)).

²⁹⁷ OMB Circular A-4(e)(3).

²⁹⁸ *NPRM*, 32 FCC Rcd. at 4468 ¶ 105.

triggering CBA and it is thus as yet unable to provide the needed guidance. In addition, the Circular requires that “[a] good analysis should be transparent and [its] results must be reproducible,” but it is impossible to know which datasets the Commission will use and, therefore, impossible to comment on their selection or the replicability of results.

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 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.

B. The Commission Has Entirely Failed to Consider a Host of Non-Economic Factors Critical to the Future of the Internet, Much Less Explain How it Would Quantify such Values, such as the Ability of an Individual to Speak, and Listen to, Political Speech.

The use of a CBA is not always the best way to decide a policy question. In *FOX v. FCC*, the lower court had found that the Commission’s lack of evidence in promulgating a ban on fleeting expletives in live broadcasts was arbitrary and capricious.²⁹⁹ In reversing, the Court held that “Congress has made the determination that indecent material is harmful to children, and has left enforcement of the ban to the Commission. If enforcement had to

²⁹⁹ *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502 (2009).

be supported by empirical data, the ban would effectively be a nullity.”³⁰⁰ As the Supreme Court explained, “[i]t is one thing to set aside agency action under the [APA] because of failure to adduce empirical data that can readily be obtained. It is something else to insist upon obtaining the unobtainable.”³⁰¹

To apply a CBA here would be to commit that very error; the Commission would be claiming to “obtain[] the unobtainable.” For example, the Commission entirely fails to explain how it could quantify the costs of restricting speech—i.e., a vertically integrated broadband provider throttling Amazon programming while prioritizing its own affiliated content. The law and economics literature has developed arguments about how to properly measure the cost of repressing speech, but after 30 years of debate, the debate is still unsettled.³⁰² Judge Richard Posner has noted the danger of suppressing speech is especially large in businesses where many of the benefits are external to producers and a change in the demand will be most felt by producers of new ideas.³⁰³ And of course the Internet is an ecosystem full of positive externalities and new and diverse ideas.

Furthermore, the FCC has repeatedly recognized the benefits of diverse individual voices, and empowering gatekeeper control of the most critical means of societal discourse clearly threatens such diversity.³⁰⁴ The Commission has attempted to fulfill this goal

³⁰⁰ *Id.* at 519.

³⁰¹ *Id.*

³⁰² Compare Richard A. Posner, *Free Speech in an Economic Perspective*, 20 *Suffolk U.L.R.* 1 (1986) with Joshua P. Davis and Joshua D. Rosenberg, *The Inherent Structure of Free Speech Law*, 19 *Wm. & Mary Bill of Rights J.* 131 (2010).

³⁰³ Posner, *supra* note 302 at 20.

³⁰⁴ See 47 U.S.C. § 257(b) (“[T]he Commission shall seek to promote the policies and purposes of this chapter favoring diversity of media voices, vigorous economic competition,

through its long-running broadcast ownership rules proceedings.³⁰⁵ The Commission would have to include the potential harm of decreased diversity of voices in a regulatory framework in which broadband providers would be able to unfairly disadvantage unaffiliated content providers, thus reducing the number of voices from which a consumer would want to hear. There is no known formula by which the Commission can estimate the cost of depriving individuals of some ability to engage in free speech. Of course, even a measurement of the impact on merely the individual who wishes to speak would be inadequate; the marketplace of ideas serves the interests of both speakers and those who choose only to listen. So a CBA would have to quantify the impact on listeners of being deprived by political and social speech, perhaps from websites or other sources that take sharply divergent views from the mainstream media.

Nor does the Commission offer any notion of how to measure the long-term impact of the erasure of the 2015 open Internet rules on innovation from today's and tomorrow's edge providers. Much of the focus of the concern for an open Internet rests on maintaining conditions in which companies that do not yet exist can come into being. But the Commission entirely fails to offer any mechanism by which it could measure the future impact on innovation and competition (including consumer benefits) of companies that do

technological advancement, and promotion of the public interest, convenience, and necessity.”); *see also Strategic Plan of the FCC*, FCC, <https://www.fcc.gov/general/strategic-plan-fcc> (last visited July 11, 2017).

³⁰⁵ 2014 Quadrennial Regulatory Review of the Commission's Broadcast Ownership Rules & Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996, *Further Notice of Proposed Rulemaking and Report and Order*, 29 FCC Rcd. 4371, 4372 ¶ 2 (2014) (“[T]raditional media outlets are still essential to achieving the Commission's goals of competition, localism, and viewpoint diversity.”), *vacated and remanded by Prometheus Radio Project v. FCC*, 824 F.3d 33 (3d Cir. 2016).

not today exist. How does the Commission propose to measure the harm caused by a broadband providers exclusive deals with an established company preventing the next Hulu or Facebook or Lyft from attracting sufficient capital to reach consumers?

The NPRM recognizes the presence of societal costs, but it does not even propose a method by which they can be measured because, especially as to a value like freedom of expression, the Commission is attempting to obtain the unattainable.

C. If the Commission after Further Notice-and-Comment Proceeds with a Cost-Benefit Analysis Despite these Difficulties, it must Recognize all of the Costs and Benefits, not just the Benefits of Allegedly More Infrastructure Investment from Reclassification.

If the Commission chooses to proceed with a CBA despite the difficulties in quantifying the costs of Internet access in which gatekeepers may, for example, unfairly discriminate against their competitors, it must do properly, which means quantifying as much as possible all of the costs and benefits.³⁰⁶ The CBA that the Commission undertakes must not only include any alleged benefits from increased investment due to reclassification. It should include the losses from innovation on the edge, decreased consumer surplus, and increased uncertainty from venture capitalists.³⁰⁷ To do otherwise would risk inflating the benefits of reclassification while ignoring the costs.³⁰⁸

³⁰⁶ See *Business Roundtable v. S.E.C.*, 647 F.3d 1144, 1151-52 (D.C. Cir. 2011).

³⁰⁷ Letter from 30 Venture Capitalists to Honorable Julius Genachowski, Chairman, FCC, GN Docket No. 09-191 (Oct. 21, 2009) (filed by the Open Internet Coalition) (“As business investors in technology companies, we have first-hand experience with the importance of a guaranteeing an open market for new applications and services on the Internet. Clear rules to protect and promote innovation at the edges of the Internet will reinforce the core principles that led to its extraordinary social and economic benefits. Open markets for Internet content will drive investment, entrepreneurship and innovation.”).

³⁰⁸ See *Corrosion Proof Fittings v. EPA*, 947 F.2d 1201, 1216–17 (5th Cir. 1991), opinion clarified (Nov. 15, 1991) (“This decision artificially inflated the purported benefits of the

In other words, the NPRM suggests the use of a CBA, but does not consider whether CBA is appropriate for the entirety of the Internet ecosystem, including the multiple sectors of the economy that benefit from it. This is another fundamental issue that the Commission must decide and on which it must seek comment before any CBA is applied.

Yet the NPRM does not recognize this. It instead identifies “reduced investments by ISPs” as the primary cost, with “fewer network construction jobs” as another example of costs.³⁰⁹ So the NPRM proposes to focus its CBA on the alleged impact of Title II on investment by broadband providers.

This focus is, of course, entirely wrong on its own terms. The question of broadband deployment is not investment in deployment only. Capital expenditures may be lumpy and the cost of deployment may be going down (especially with the advent of software-enabled networks), so the focus on investment fails even to ask the right question about the broadband providers. But the error is even more fundamental; even the economic inquiry cannot be limited only to the broadband providers but must include harm to innovation and competition more generally, including, of course, edge providers and consumers. And even an economic analysis, however, is too limited because of the very important non-economic interests, including diversity of speech, that the Commission must consider.

To properly perform a CBA, the Commission must consider the costs of decreased levels of investment from edge providers as they deal with broadband providers that can use their gatekeeper power to either extract fees from the edge providers or restrict their

rule by using a baseline comparison substantially lower than what currently available technology could yield.”).

³⁰⁹ *NPRM*, 32 FCC Rcd. at 4469-70 ¶¶ 110-11.

access to customers. For example, ISPs can directly harm OVDs by unfairly disadvantaging unaffiliated content providers. These harms are felt by the OVD itself. But they are also felt by the writers, production companies and other jobs associated with the disadvantaged content, and of course consumers who will have less choices in content.³¹⁰

Instead of considering these costs, the CBA is concerned more with the alleged costs that ISPs face currently. But that paints a misleading picture, which ignores easy to identify but difficult to measure costs. It also ignores precedent.³¹¹

If the Commission insists on conducting a CBA, it must recognize the costs and benefits that reclassification will bring to the entire ecosystem, not just broadband providers. As we demonstrate herein, enforceable rules that ensure consumers can access any lawful content without blocking, throttling, or paid prioritization, provide the foundation by which content producers can rely upon to create and offer their goods, services, and ideas on the Internet which provide innumerable benefits to consumers.

³¹⁰ See, e.g., Comments of Writers' Guild of America West, GN Docket No. 14-28, at 3-4 (July 15, 2014).

³¹¹ See *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (“[T]he agency must examine the relevant data and articulate a satisfactory explanation for its action including a ‘rational connection between the facts found and the choice made.’”) (quoting *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1962)).

VI. CONCLUSION

For the reasons stated herein, the current open Internet rules, and their jurisdictional bases, should be maintained.

Respectfully submitted,

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