

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

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

REPLY COMMENTS OF AT&T SERVICES INC.

Amanda E. Potter
Christopher M. Heimann
Gary L. Phillips
David L. Lawson
AT&T SERVICES INC.
1120 20th Street, N.W.
Washington, D.C. 20036
(202) 457-2103

Jonathan E. Nuechterlein
C. Frederick Beckner III
James P. Young
Kathleen M. Mueller
SIDLEY AUSTIN LLP
1501 K Street, N.W.
Washington, D.C. 20005
(202) 736-8000

August 30, 2017

TABLE OF CONTENTS

EXECUTIVE SUMMARY1

ARGUMENT9

I. Title II Regulation Fails Any Reasonable Cost-Benefit Analysis.9

A. Title II Advocacy Is a Case Study in Sloppy Economics and Logical Misdirection.9

B. Title II Regulation Is Unnecessary to Achieve Any Valid Policy Goal. ...13

1. The Historical Record Is Bereft of “Problems” Requiring a Title II Solution.13

2. Broadband Competition Makes Title II Regulation Unnecessary. 23

3. Rhetoric About “Gatekeepers” and “Externalities” Is No Substitute for a Market Power Analysis.27

4. Speculative Concerns About Theoretical “Paid Prioritization” Arrangements Cannot Justify Title II Regulation.31

5. Regulatory Oversight of Internet Interconnection Is Unnecessary and Counterproductive.37

C. Title II Regulation Substantially Harms Broadband Investment and Innovation.45

1. The Open-Ended “Reasonableness” Requirements Inherent in Title II Regulation Inevitably Depress Investment and Innovation46

2. The Investment “Studies” Proffered by Title II Advocates Are Meritless.50

II. Broadband Internet Access Cannot Lawfully Be Subject to Common Carrier Regulation.56

A. The Commission Should Find That the Statute Not Only Permits But Compels an Information Service Classification and, as Belt-and-Suspenders, Should Conditionally Forbear From All Title II Regulation. 56

B. The Text, History, and Structure of the Communications Act Compel an Information Service Classification.60

1. The Statutory Language Codifies the Pre-1996 Understanding that All “Gateway” Services Enabling Interaction with Third Party Data Are “Information Services.”60

2.	Sections 230 and 231 Confirm That All Internet Access Services Are Information Services.....	67
3.	Broadband ISPs Also Offer Consumers DNS and Similar Data Processing Capabilities as Integral Parts of Internet Access, and the “Telecommunications Management” Exception Is Inapplicable...70	
4.	Virtually All Broadband ISPs Further Offer Additional Data-Processing Features As Part of Their Internet Access Services. ...77	
C.	Title III Independently Insulates Mobile Broadband Providers From Common Carriage Regulation.	79
	CONCLUSION.....	85

EXECUTIVE SUMMARY

The Commission's central task in this proceeding is to restore the balance in Internet policy that it observed for all but the past two years of broadband's twenty-year history. To that end, the NPRM sought public comment on how best to replace the ham-fisted public-utility regime adopted in 2015 with an approach that preserves an open Internet without suppressing investment and innovation. The commenters who have responded to that inquiry fall into two broad categories: those that do, and those that do not, propose ways to avoid the immense costs of overregulation by tailoring the Commission's oversight role to plausible market concerns. The commenters in the first category include not only AT&T and virtually all other fixed and mobile broadband providers, but also:

- the professional staff of the Federal Trade Commission;
- nearly all economists who have submitted comments;
- independent think tanks such as the Information Technology & Innovation Foundation, the Technology Policy Institute, and the Free State Foundation;
- business associations of economy-wide scope such as the U.S. Chamber of Commerce, the National Association of Manufacturers, and the Small Business & Entrepreneurship Council;
- a wide range of companies and trade associations representing a cross-section of the Internet ecosystem, including Cisco, Qualcomm, Nokia, Ericsson, the Telecommunications Industry Association, and ACT/The App Association; and
- millions of individual American consumers who are opposed to excessive government intervention in the free market (see below).

In contrast, advocates of continued Title II regulation do not try to match means to ends. Instead, they urge "strong" (*i.e.*, overbroad and intrusive) regulation with no regard for regulatory costs, including the chilling effects of nebulous and politically manipulable "reasonableness" mandates on broadband investment and innovation. To the extent these advocates even purport to compare regulatory options through the lens of a cost-benefit analysis,

they falsely assume that the sole alternative to Title II regulation is *no oversight at all*. On that basis they argue that Title II regulation is needed to prevent doomsday scenarios involving widespread blocking and throttling. But those doomsday scenarios would be fanciful even in the complete absence of regulation. Market dynamics require all ISPs to honor their customers' engrained expectations of full access to the Internet, and those dynamics preserved an open Internet for more than a dozen years before the first prescriptive "net neutrality" rules took effect in 2011. Just as important, this proceeding does not present a binary choice between Title II regulation and doing nothing, as the Wheeler Commission's own *2014 NPRM* made clear.¹ The appropriate baseline for any cost-benefit analysis of Title II regulation is thus not a market free of any oversight, but a market subject to a consensus no-blocking/no-throttling and transparency regime. And viewed against that baseline, the incremental benefits of Title II regulation are negligible and the incremental costs immense.

In these and other respects, the pro-Title II comments are models of misdirection. That said, those comments seem almost principled by comparison to the sham rhetoric many of these same commenters peddle to the general public. For example, various interest groups proclaim on their websites that, if the Commission reverts from Title II regulation to the light-touch approach that prevailed until 2015, it will "kill the open Internet"² in the following ways:

¹ Notice of Proposed Rulemaking, *Protecting and Promoting the Open Internet*, 29 FCC Rcd 5561, ¶ 4 (May 15, 2014) ("*2014 NPRM*").

² Kate Forscey, *The FCC is Trying to Kill the Open Internet—What That Means and How to Stop It*, PUBLIC KNOWLEDGE (May 25, 2017) ("PK 5/25/2017 Blog"), <https://www.publicknowledge.org/news-blog/blogs/the-fcc-is-trying-to-kill-the-open-internet-what-that-means-and-how-to-stop-it>.

- ISPs will “block websites or content they don’t like” and keep “social movements” from “fight[ing] against oppression.”³
- “That blog you depend on for local news coverage could shut down.”⁴
- “[Y]our ISP could block any website that can’t or won’t pay [its] ransom. This means that you could lose access to your email, banking, social media, music, or anything that requires the internet.”⁵

These claims are nonsense, as are the many similar misrepresentations orchestrated by these and other groups that purport to serve the public interest. The Commission should bear that point in mind when these groups congratulate themselves for deceiving ordinary people into filing duly outraged form comments in this docket. Those comments show only that there is widespread support for the open Internet. They do not show that ordinary Americans would support Title II regulation when informed about its substantial costs and negligible benefits.

Beyond that, most of the mass-produced comments supporting Title II regulation do not even qualify as misinformed because they appear to be fraudulent. According to a recent report by data-analytics firm Emprata, the proponents of Title II regulation stuffed the ECFS ballot box with millions upon millions of sham “comments.”⁶ These submissions fall into one or more of the following categories:

³ Free Press, *Net Neutrality: What You Need to Know Now*, <https://www.freepress.net/net-neutrality-what-you-need-know-now> (last visited August 14, 2017).

⁴ Todd O’Boyle, *Net Neutrality Is a Democracy Issue*, COMMON CAUSE (Sept. 10, 2014), <http://www.commoncause.org/democracy-wire/net-neutrality-is-a-democracy-issue.html?referrer=https://www.google.com/>.

⁵ PK 5/25/2017 Blog, *supra*.

⁶ See Emprata, *FCC Restoring Internet Freedom Docket 17-108: Comments Analysis* (Aug. 30, 2017) (“*Emprata Report*”), <http://www.emprata.com/reports/fcc-restoring-internet-freedom-docket/>; see also Peter Flaherty, *Another 5.8 Million Fake Net Neutrality Comments Found*, National Legal & Policy Center (Aug. 8, 2017), <http://nlpc.org/2017/08/08/another-5-8-million-fake-net-neutrality-comments-found-1-5-million-fakes-put-online-public-scrutiny/> (“NLPC’s previous three analyses uncovered millions of comments coming from fake addresses in the U.S., France, Russia and Germany while the most recent filings appear to come almost exclusively from fake addresses and emails in the U.S. ... All

- *Submissions with fake email addresses.* An astounding 7.75 million comments—fully 36 percent of the total—were mass-produced using sham email addresses with domains attributed to FakeMailGenerator.com. *Emprata Report 2.* The websites for these fake email generators state that they are designed to provide only “temporary” or “disposable” email addresses and warn that “[n]o legitimate email will ever be sent from” them.⁷ Virtually all of these fraudulent submissions favored continued Title II regulation.
- *Multiple submissions from the same entities.* Almost half (9.93 million) of the comments were each filed multiple times using the same email or physical address for the same filer. The overwhelming majority of these duplicative filings supported Title II regulation and were thus orchestrated by pro-Title II entities. *Emprata Report 14.*
- *Submissions from foreign addresses.* Approximately 1.72 million comments were filed using foreign physical addresses, with more from Russia than any other country. *Id.* at 13. The vast majority of these foreign comments appear to be fraudulent as well, given the uncanny unanimity of their support for continued Title II regulation. For example, of the 444,938 “comments” filed with Russian addresses, a total of *four* opposed Title II regulation. *Id.* In any event, even if some small percentage of these foreign-attributed comments were real, there is no reason to expect the views of foreign entities to coincide with the U.S. public interest.

Once these categories of sham comments are set aside, the commenters opposing Title II regulation greatly outnumber the commenters supporting it. For example, simply eliminating comments with fake email addresses leaves Title II opponents with a commanding majority over Title II advocates (61 percent to 39 percent). *Id.* at 17. And if one counts only the first comment in any set of duplicative comments listing the same email address, Title II opponents outnumber Title II advocates by a ratio of *four to one.* *Id.* at 14.

The remainder of these reply comments are organized as follows. We first note that the open Internet has prospered for decades in spite of—indeed, because of—the absence of Title II regulation for all but the past two years. § I.B.1. The Title II advocates respond to that point

of the [recent] fake comments ... come from one of 10 email domains associated with a fake email generator program found at <http://www.fakemailgenerator.com>.... The addresses listed in the comments appear to be U.S. addresses, but almost all of them are invalid, in many cases including valid U.S. street addresses that don't match the cities, states or zip codes listed.”).

⁷ *E.g.*, “*What is einrot.com?*,” einrot.com (last visited Aug. 30, 2017) (“If you receive an email from einrot.com then you can be 100% confident that the email address was forged.”).

with more misdirection. They cite a handful of historical “incidents” as evidence of the need for full-blown common carrier regulation, but each of those “incidents” (to the highly questionable extent they raised genuine concerns at all) were fully addressed *without* Title II regulation. Those incidents thus cannot even logically support the burdensome overlay of Title II regulation, with its nebulous “reasonableness” and “nondiscrimination” rules.

The Title II defenders also cite zero-rating initiatives by AT&T and others as evidence that “stronger” rules are needed to prohibit “discriminatory” ISP business practices. But these and the other cited practices are unambiguously pro-competition and pro-consumer. Although the Wheeler Commission did indeed rely on Title II to attack such practices and cast them into regulatory limbo, that experience shows only that Title II regulation is as harmful as it is needless.

We next explain that broadband competition is more than adequate to protect an open Internet. § I.B.2. The Title II advocates first respond with another logical sleight of hand: they defend intrusive regulation of all broadband providers, including *mobile* providers, on the basis of “monopoly” or “duopoly” rhetoric about the *fixed* broadband segment. As a threshold matter, competition among fixed broadband providers is in fact substantial; Title II proponents can argue otherwise only by gerrymandering a “market” that arbitrarily excludes services below 25 Mbps; and in any event, the arrival of 5G technologies will extend and intensify competition by eroding the distinction between fixed and mobile providers. But just as important, it is illogical to argue that supposedly inadequate competition among *fixed* broadband providers makes intrusive regulation necessary for the exceptionally competitive *mobile* segment—as the *2010 Open Internet Order* recognized by exempting mobile providers from “nondiscrimination” rules and other unnecessary restrictions. *See* Sections I.B.1-2, *infra*.

Title II advocates cannot patch this analytical hole by repeating the *Title II Order's* economically incoherent claim that all fixed and mobile broadband providers are “monopolists” by virtue of their “gatekeeper” status no matter how much retail competition they face. As explained by one set of prominent economists:

This implausible view of monopoly (true only in the literal sense that the customer may be being served by a single ISP at a given moment in time) is economically vacuous. The same “monopoly” could be said to exist for customers who have entered a movie theater or restaurant. Yet this everyday phenomenon has never been seen as a market failure demanding the imposition of comprehensive regulation.⁸

Similarly, any “externalities”-related concern about preserving the Internet as an open platform for innovation and free expression cannot support Title II regulation. Again, ISPs already have strong incentives to satisfy their customers’ long-held expectation of access to the full Internet. In all events, any “externality” concern can be addressed just as readily and with far lower regulatory costs by means of a baseline no-blocking/no-throttling regime. § I.B.3.

We next address claims that Title II regulation is necessary to support a flat ban on paid prioritization. As explained in our opening comments, that flat ban is both (1) grossly premature because such practices remain a mere theoretical construct and (2) unjustified on the merits because, if paid prioritization ever moves from theory to practice, many forms would create substantial consumer benefits while posing no discernible threat to the open Internet. § I.B.4. The Title II advocates have no meaningful response to either point.

Nor do they offer any basis for claims that Title II regulation should be preserved to enable the government to intervene in Internet interconnection arrangements for the first time in

⁸ John Mayo et al., “An Economic Perspective of Title II Regulation of the Internet,” at 3 (Center for Business & Public Policy, Georgetown Univ. July 2017) (“Georgetown CBPP Econ. Comments”) (filed in this docket).

the history of the commercial Internet. § I.B.5. Free market dynamics have ensured efficient interconnection outcomes for decades, and there is every reason to believe they will continue to do so. While some commenters cite alleged interconnection “problems” experienced by Cogent and Level 3, those “problems” are in fact evidence only of gamesmanship by Cogent and Level 3, not of any market failure, let alone a market failure warranting intrusive Title II regulation. The Wheeler Commission’s decision to assert such regulatory authority anyway was thus needless and indeed harmful because the threat of government intervention inevitably distorts negotiations and impedes efficient market outcomes. The *Title II Order*’s peculiar legal rationale for intervention compounds those harms by asymmetrically regulating only one side of negotiations—broadband ISPs—and not both.

We next turn to the “cost” side of the cost-benefit analysis. The hallmark of Title II regulation is a collection of nebulous “reasonableness” and “nondiscrimination” requirements that permit anyone to complain about almost anything. Because such requirements are inherently amorphous, they will always cast doubt on the legality of any innovative ISP network technique or business model that benefits consumers but treats some edge providers differently from others. That regulatory uncertainty inevitably chills investment and innovation. And the concern is particularly acute in this hyper-politicized regulatory environment, where slogans substitute for analysis and decisionmakers routinely confuse disadvantage to individual *competitors* with harm to *competition*, as the “zero-rating” investigations illustrate. § I.C.1.

It is thus no surprise that a growing body of empirical research confirms what economic theory holds must be true: Title II regulation has likely depressed broadband investment. Indeed, that research understates the problem because the Wheeler-era Title II regime was in place for less than two years, and investment figures from 2015 and 2016 generally reflect business

decisions that were already set in motion by 2014, when Title II regulation seemed unlikely. So-called “studies” by the Internet Association and Free Press that purport to disprove these harms are so shot through with empirical and logical flaws as to prove exactly nothing. § I.C.2.

For all the reasons set forth in our opening comments, the Commission can and should act on these cost-benefit conclusions by restoring broadband Internet access to the “information service” classification that applied for all but the past two years of broadband’s two-decade history. § II.A-B. The statute, in fact, compels an information service classification for broadband, and the D.C. Circuit panel majority erred by deferring to the Wheeler Commission’s flawed contrary conclusion. In all events, arguments that the statute somehow *precludes* an information service classification crash headlong into the holding of *Brand X* as well as the opinions of the D.C. Circuit judges in the *USTelecom* panel majority. The Commission should further conclude that mobile Internet access is doubly immune from common carrier regulation because it is not interconnected with the conventional telephone network and thus falls outside any reasonable interpretation of the defined statutory term “commercial mobile service.”

§ II.C.

Finally, as belt-and-suspenders, the Commission should follow through on its proposal (NPRM ¶ 64) to engage in conditional forbearance from the application of any Title II obligations to any broadband Internet access service. Reinstatement of a Title II classification by a court or future Commission would otherwise have self-executing regulatory consequences. Conditional forbearance based on empirical cost-benefit findings would create an independent legal bulwark against those consequences.

ARGUMENT

I. TITLE II REGULATION FAILS ANY REASONABLE COST-BENEFIT ANALYSIS.

A. Title II Advocacy Is a Case Study in Sloppy Economics and Logical Misdirection.

If prizes were awarded for greatest understatements in the opening comments, first place would go to Incompas for acknowledging that “it has become fashionable in some circles to suggest that the *2015 Open Internet Order* lacked economic underpinnings.”⁹ This is like saying that it has become “fashionable in some circles” to criticize Marx’s labor theory of value. In fact, the “circles” of professional economists who have criticized “the economic underpinnings” of the *Title II Order* include the Commission’s own chief economist at the time, who called the *Order* an “economics-free zone.”¹⁰ They also include most leading economists who have written on this topic, as illustrated by the articles featured in a recent issue of the *Review of Industrial Organization*.¹¹

⁹ Incompas Comments at 7. We refer to that order—Report and Order on Remand, *Protecting and Promoting the Open Internet*, 30 FCC Rcd 5601 (2015)—as the “*Title II Order*.”

¹⁰ *United States Telecom Ass’n v. FCC*, 825 F.3d 674, 764 (D.C. Cir. 2016) (“*USTelecom*”) (Williams, J., dissenting in part), *rehearing en banc denied*, 855 F.3d 381 (D.C. Cir. 2017); see Tim Brennan, *Is the Open Internet Order an Economics-Free Zone?*, Free State Foundation (June 28, 2016), http://www.freestatefoundation.org/images/Is_the_Open_Internet_Order_an_Economics_Free_Zone_062816.pdf.

¹¹ See, e.g., Amanda Delp & John Mayo, *The Evolution of “Competition”: Lessons for 21st Century Telecommunications Policy*, 50 Rev. of Indus. Org. 393 (2017); Keith Hylton, *Law, Social Welfare, and Net Neutrality*, 50 Rev. of Indus. Org. 417 (2017); Michael Katz, *Wither U.S. Net Neutrality Regulation?*, 50 Rev. of Indus. Org. 441 (2017); Thomas Hazlett & Joshua Wright, *The Effect of Regulation on Broadband Markets: Evaluating the Empirical Evidence in the FCC’s 2015 “Open Internet” Order*, 50 Rev. of Indus. Org. 481 (2017); Christopher Yoo, *Avoiding the Pitfalls of Net Uniformity: Zero Rating and Nondiscrimination*, 50 Rev. of Indus. Org. 509 (2017); Michelle Connolly, Clement Lee & Renhao Tan, *The Digital Divide and Other Economic Considerations for Network Neutrality*, 50 Rev. of Indus. Org. 537 (2017); Robert Crandall, *The FCC’s Net Neutrality Decision and Stock Prices*, 50 Rev. of Indus. Org. 555 (2017); see also Mark Jamison *et al.*, “Economic Scholars’ Summary of Economic Literature Regarding Title II Regulation of the Internet” (July 15, 2017) (filed in this docket); Georgetown CBPP Econ. Comments; Declaration of Mark Israel, Allan Shampine & Thomas Stemwedel (July 17, 2017; attached to AT&T’s comments) (“Economists’ Declaration” or

The *Title II Order* has fallen into such disrepute in the economic community mainly because it is riddled with economic and logical fallacies. The same fallacies now infect the comments of the pro-Title II commenters, who generally just parrot the reasoning of the *Order* they try to defend.

First, most pro-Title II advocacy, like the *Title II Order* itself, exhibits a gross mismatch between asserted market problem and proposed regulatory solution. For example, Incompas dwells at some length on speculation in Commission merger orders that certain vertically integrated ISPs/MVPDs might harm OVD competition to preserve legacy MVPD revenues.¹² Although vertical integration is generally procompetitive,¹³ it is of course possible to imagine

“AT&T Econ. Decl.”); Andres V. Lerner and Janusz A. Ordoover, *An Economic Analysis of Title II Regulation of Broadband Internet Access Providers* (July 17, 2017; attached to Verizon comments) (“Lerner & Ordoover Decl.”); Bruce M. Owen, *Internet Service Providers as Common Carriers: Economic Policy Issues* (July 17, 2017; attached to NCTA’s comments).

¹² See Incompas Comments 8-9, 18-24. Of course, the mere fact that past Commissions recited such concerns to rationalize the conditions they extracted from the merging parties does not mean that those concerns were any more valid than the dubious economic logic of the *Title II Order* itself. See, e.g., Statement of Comm’r Ajit Pai, Approving in Part and Dissenting in Part, at 1, in *Applications of AT&T Inc. and DIRECTV for Consent to Transfer Control*, 30 FCC Rcd 9131 (July 28, 2015) (“AT&T-DIRECTV Order”) (describing conditions as “forced tribute”). Incompas’s description of the AT&T/DIRECTV merger conditions is also misleading. It states that “the Commission imposed a condition on AT&T preventing it from discriminating in favor of its own video programming services,” Incompas Comments 20, but neglects to mention that the relevant condition applies only to AT&T’s *fixed-line* broadband services. See *AT&T/DirectTV Order*, App’x B ¶ IV. Evidently the Commission concluded that mobile competition was sufficient to make any nondiscrimination requirement unnecessary for AT&T’s mobile services. The *Order* also lauds, as a key benefit of the merger, the prospect that the combined company will offer bundled discounts for fixed broadband Internet access with affiliated video programming services. *Id.* ¶¶ 3-4. As discussed in Section I.B.1 below, such discounts are economically equivalent to zero-rating arrangements favoring those same video services.

¹³ Francine LaFontaine and Margaret Slade, *Vertical Integration and Firm Boundaries: The Evidence*, 45 J. OF ECON. LIT. 629, 680 (2007) (“[W]e did not have a particular conclusion in mind when we began to collect the evidence, and ... [w]e are therefore somewhat surprised at what the weight of the evidence is telling us. It says that, under most circumstances, profit-maximizing vertical-integration and merger decisions are efficient, not just from the firms’ but also from the consumers’ points of view.”); Steven C. Salop & Daniel P. Cully, *Potential Competitive Effects of Vertical Mergers: A How-To Guide for Practitioners* at 5 (2014), <http://ssrn.com/abstract=2522179> (“Most vertical mergers do not raise competitive concerns and likely are procompetitive.”); *Comcast Cable Comm’ns, LLC v. FCC*, 717 F.3d

isolated scenarios in which a vertically integrated ISP/MVPD would have the incentive and ability to engage in anticompetitive conduct. But such scenarios could arise only where the firm dominates (or likely will dominate) all relevant markets, both upstream and downstream.¹⁴ If there are firms that actually possess such market power in specific geographic areas—and Incompas makes no effort to identify them—the proper regulatory response would be to keep *those dominant firms* from anticompetitively excluding *OVD competition*, as antitrust law already does. If necessary, the antitrust laws could be supplemented by a no-blocking/no-throttling regime. The proper response is *not* to restrict the ability of *all* ISPs (dominant or not) to engage in *any* differential treatment (anticompetitive or not) among *any* edge providers (ISP rivals or not).

Second, and relatedly, the *Order* and its defenders ask the wrong question whenever they purport to engage in a cost-benefit analysis of market intervention. In addressing the supposed need for Title II regulation, they often assume that the only alternative is no government oversight at all.¹⁵ That is a false choice. As the NPRM makes clear (§ 108), the Commission

982, 990 (D.C. Cir. 2013) (Kavanaugh, J., concurring) (“absent market power, vertical integration and vertical contracts are *procompetitive*”) (emphasis in original).

¹⁴ See, e.g., *Auburn News Co., Inc. v. Providence Journal Co.*, 659 F.2d 273, 278 (1st Cir. 1981) (“[V]ertical integration will not have an anticompetitive effect ... [w]here substantial market power is absent at any one product or distribution level.”).

¹⁵ See, e.g., Public Knowledge Comments 67 (suggesting that restoring information service classification would entail “a total abandonment of ... efforts to protect consumers online”); Free Press Comments 16-17 (“Abandoning the common carrier model and Title II ... would be a disaster for the open internet ... [ISPs] would pick and choose not just the commercial content, but even the political speech and information their broadband customers can access and create.”); *id.* at 39 (“[T]he Commission’s proposal to turn away from common carriage ... means it would never be able to preserve the open internet ... There is no longer any gray area.”); Incompas Comments 5 (“[T]he end of the *current open Internet rules* would mean that ... [ISPs] could decide exactly what content—political and commercial—[consumers can] see or read or hear.”) (emphasis added); EFF Comments 23 (apart from Title II, “[n]o other federal law exists that would prohibit the outright blocking of websites”).

should assess the *incremental* costs and benefits of adding Title II regulation on top of an appropriate regulatory baseline. See AT&T Comments 2, 10-11. In this case, that baseline is a no-blocking/no-throttling and transparency regime, which satisfies any cost-benefit calculus because it codifies already established industry norms, enforced through free-market dynamics. See *id.* at 10-11; see also *id.* at 101-105 (addressing D.C. Circuit’s “blueprint” for adopting such a regime). The real question, therefore, is whether the incremental burdens created by superimposing Title II regulation on top of such a regime are balanced by any commensurate benefits. They are not, as discussed in sections I.B and I.C below.¹⁶

These are but two examples of the illogic that pervades the *Title II Order* and the comments of its defenders; many others abound. For example, Title II proponents illogically:

- attack the adequacy of a targeted no-blocking/no-throttling regime by citing trumped-up allegations of misconduct that (if they had merit) *would be fully addressed by such a regime*;
- cite supposed deficiencies in *fixed-line* broadband competition as a basis for overregulating *all* broadband providers, including *mobile* ones, while ignoring the fierce state of mobile competition;

¹⁶ Incompas (at 83-94) suggests that, if the Commission undertakes any kind of cost-benefit analysis, it must first issue a new NPRM specifying the precise metrics and formulas it intends to use. This is nonsense. To begin with, the Commission will presumably follow its recent (and laudable) practice of exceeding APA requirements by making available an advance draft of the contemplated final rule. But it is not required even to do that. Although an agency must “allow interested members of the public to communicate information, concerns, and criticisms to the agency during the rule-making process,” it “need not renote changes” that “reasonably develop” its original proposals because otherwise “the comment period would be a perpetual exercise rather than a genuine interchange resulting in improved rules.” *Connecticut Light & Power Co. v. Nuclear Reg. Comm’n*, 673 F.2d 525, 530, 533 (D.C. Cir. 1982). Incompas has no basis for demanding that “perpetual exercise” because the NPRM (¶¶ 105-15) in fact provides a roadmap to the analysis the Commission intends to undertake. And the Commission can satisfy the APA by finding that the incremental benefits of Title II overregulation are negligible and the incremental costs (*e.g.*, forgone investment and innovation) are substantial though difficult to quantify with precision.

- argue that every broadband ISP has “monopoly” power (as a “gatekeeper”) no matter how much retail competition it faces and no matter how demonstrably easy it is for consumers to switch providers; and
- argue that any deviation from “neutrality” would somehow corrupt the Internet even though the Internet has never been a neutral playing field in the first place.

We address these and the Title II advocates’ other logical miscues in the sections that follow.

B. Title II Regulation Is Unnecessary to Achieve Any Valid Policy Goal.

1. The Historical Record Is Bereft of “Problems” Requiring a Title II Solution.

For all but two years of broadband’s two-decade history, Democratic- and Republican-led Commissions followed a bipartisan consensus in favor of a light-touch approach to broadband oversight. Throughout that period, the Internet flourished as an engine of investment and innovation, spawning millions of Internet services that today touch all aspects of consumers’ lives—at home, at work, and on the move. The Internet would not be this unprecedented success story if public utility regulation were necessary to keep it open. Title II advocates have no credible response to this basic point. They therefore try to bury it by refashioning history in two different ways: (1) misrepresenting pre-2015 regulatory history as more interventionist than it was and/or (2) conjuring up fictitious pre-2015 “problems” that supposedly demanded “stronger” net neutrality solutions. Neither strategy succeeds.

First, as to regulatory history, some commenters curiously portray the pre-2015 regulatory regime as though it were nearly as burdensome and intrusive as the *Title II Order* itself. *See, e.g.*, Incompas Comments 9-13; *cf.* Public Knowledge Comments 58-59.¹⁷ But as

¹⁷ In a variation on this theme, Free Press presents regulatory history in starkly partisan terms, suggesting that the Clinton Administration pursued wisely intrusive regulatory policies but that the “Bush-era Commission” abandoned all oversight altogether on the basis of “foolish” and “fanciful” analysis. Free Press Comments 33. As discussed below, this is nonsense: broadband policy in fact

explained in our opening comments (at 13-14), the Commission’s net neutrality initiatives before 2015 were a study in regulatory restraint, at least as compared to the *Title II Order*.

First, there was no prescriptive regulation of retail Internet access services *at all* throughout the 1990s and the first decade of the 21st century. During the Clinton Administration, the Commission consistently rejected proposals to regulate cable modem service even though it was the dominant mass market broadband service. In the words of then-Chairman William Kennard in 1999, “[i]f we’ve learned anything about the Internet in government over the last 15 years, it’s that it thrived quite nicely without the intervention of government.”¹⁸ The same Clinton-era Commission then rejected proposals in 1999 and 2000 to impose open access requirements on cable operators in connection with its merger review authority.¹⁹ From 2002-2005, the Bush-era Commission followed through on the same policies by classifying cable and wireline broadband as unitary “information services” immune from common carrier regulation.²⁰

exhibited remarkable continuity from the late 1990s through early 2015. And the supposedly “foolish” and “fanciful” analysis underlying the light-touch approach throughout the Aughts was remarkably successful in maintaining an open and flourishing Internet.

¹⁸ Remarks of Chairman William Kennard before the NCTA, *The Road Not Taken: Building a Broadband Future for America* (June 15, 1999), <http://www.fcc.gov/Speeches/Kennard/spwek921.html>.

¹⁹ Mem. Op. and Order, *Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from MediaOne Group to AT&T Corp.*, 15 FCC Rcd 9816, ¶ 127 (June 6, 2000); *see also* Mem. Op. and Order, *Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from Tele-Communications, Inc. to AT&T Corp.*, 14 FCC Rcd 3160, ¶¶ 74-75 (Feb. 18, 1999).

²⁰ *See* Decl. Ruling and NPRM, *Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities*, 17 FCC Rcd 4798, ¶ 37 (Mar. 15, 2002) (“*Cable Broadband Order*”); Report and Order and NPRM, *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, 20 FCC Rcd 14853 (Sept. 23, 2005) (“*Wireline Broadband Order*”), *aff’d Time Warner Telecom, Inc. v. FCC*, 507 F.3d 205 (3d Cir. 2007). The pro-Title II advocates stress that, until the 2005 *Wireline Broadband Order*, the monopoly-era *Computer Inquiry* rules still required *telephone companies* to unbundle and tariff Title II transmission services for the benefit of unaffiliated information service providers whenever they offered Title I information services to consumers. *See, e.g.*, Public Knowledge Comments 58-59; Incompas Comments 10; Free Press Comments 33; EFF Comments 4. But these advocates ignore that the dominant mass-market broadband providers in these early years were not

During the same period, the Commission issued general guidance to the industry, in the form of a 2004 “Internet Freedoms” speech by Chairman Michael Powell and an *Internet Policy Statement* in 2005.²¹ The Commission stressed, however, that it was “not adopting rules” and wished only to offer “guidance” in support of Internet openness. *Internet Policy Statement* ¶¶ 3-5 & n.15.

The Commission did adopt actual rules for the first time in 2010, but they were restrained, reasonably well-tailored, and thus consistent with continued investment and innovation.²² The pro-Title II commenters suggest that there is little substantive difference between the 2010 rules and the 2015 rules and that if ISPs acquiesced in the former, as AT&T did in the interest of compromise, they should also acquiesce in the latter. *E.g.*, Internet Association Comments 30. Of course, if this proposition were correct, these commenters themselves should have little trouble supporting a consensus framework that largely mirrors the 2010 approach. In fact, however, the proposition is incorrect because the *Title II Order* is far more interventionist than its predecessor. The *2010 Open Internet Order* inflicted nothing like the open-ended “no unreasonable interference/disadvantage” standard on any ISP, and it imposed very limited regulation of any kind on mobile broadband providers. For example, it exempted mobile providers from any “nondiscrimination” requirement (and thus any presumption against paid prioritization) and sharply limited even the no-blocking rule applicable to mobile providers.

telephone companies, but cable companies, which were never subject to the *Computer Inquiry* rules and, more generally, were never regulated under Title II.

²¹ See Chairman Michael K. Powell, *Preserving Internet Freedom: Guiding Principles for the Industry*, at 5 (Feb. 8, 2004); Policy Statement, *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, 20 FCC Rcd 14986 (Sept. 23, 2005) (“*Internet Policy Statement*”).

²² See Report and Order, *Preserving the Open Internet*, 25 FCC Rcd 17905 (2010) (“*2010 Open Internet Order*”).

See 2010 Open Internet Order, Appx. A §§ 8.5, 8.7.²³ And even as to fixed-broadband services, the nondiscrimination rules applied only to the actual *transmission* of Internet packets, as opposed to (for example) differential treatment with respect to data caps or other terms of service. *Id.* § 8.7.

Incompas distorts all of this regulatory history when, unlike some other pro-Title II commenters, it effectively concedes that the historical record contains very little evidence of misconduct inimical to the open Internet and then tries to explain that fact away. Contriving an analogy to Sherlock Holmes’ “dog that didn’t bark,” Incompas argues that “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.” Incompas Comments at 11. But if the hortatory and narrowly targeted *2005 Policy Statement* was sufficient to keep the “dog” from “barking,” a similar regime would obviously be sufficient to accomplish the same end today. In particular, the Commission could simply replace the 2015 rules with a new Policy Statement that reflects the same no-blocking/no-throttling principles as the 2005 version.

Whereas Incompas at least acknowledges that there was no “barking dog” even before 2015, other Title II advocates are less forthright. And so they trot out their usual parade of purported “bad acts,” which, they claim, show a need for intrusive regulatory intervention. *E.g.*, EFF Comments 14-15. In fact, they show no such thing. The most widely cited anecdotes—the decade-old Madison River/VoIP and Comcast/BitTorrent controversies—involved allegations of blocking and throttling respectively and were resolved years before the Commission had binding

²³ Specifically, the rules prohibited mobile providers from “block[ing] consumers from accessing lawful *websites*” but, as to mobile apps, prohibited them only from “block[ing] applications that compete[d] with the provider[s]’ voice or video telephony services[.]” *Id.* § 8.5 (emphasis added).

rules addressing even those practices. *See* AT&T Comments 19-20. Far from demonstrating the need for full-blown common carrier regulation, those incidents suggest that non-binding no-blocking/no-throttling principles are sufficient to address any lingering concerns about blocking or throttling.

The other blocking and throttling allegations cited by Title II proponents are similarly unconvincing. In fact, the cited incidents involved no net neutrality violations at all. Claims that ISPs “blocked” Google Wallet functionality (*e.g.*, Public Knowledge Comments 105-06) are a case in point. When Title II proponents try to pass such “blocking” off as evidence of anticompetitive behavior, they omit the critical facts that debunk their claim. Unlike other apps, the Google Wallet app required not only access to smartphone operating systems, but also integration with the Secure Element embedded in a mobile device’s SIM card. The Secure Element “is a microprocessor chip which can store sensitive data and run secure apps such as payment. It acts as a vault, protecting what’s inside the SE (applications and data) from malware attacks that are typical in the host (i.e. the device operating system).”²⁴ Granting Google and other third parties access to the Secure Element would have compromised its status as “secure,” and carriers thus needed to work with Google and others to develop alternative solutions.²⁵

²⁴ Gemalto, *What Is a Secure Element?*, <https://www.justaskgemalto.com/en/what-is-a-secure-element/> (last visited Aug. 27, 2017).

²⁵ *See* David Ruddock, *A Brief History Of Verizon And Google Wallet, And Why The Carrier Is Still Allowed To “Block” It*, Android Police (May 1, 2013), <http://www.androidpolice.com/2013/05/01/a-brief-history-of-verizon-and-google-wallet-and-why-the-carrier-is-still-allowed-to-block-it/> (“Google Wallet is doing something few apps do—asking for direct, exclusive access to a secure piece of hardware in the phone. Not only that, once Google takes over the secure element, it wants total control. Because of the security concerns (and related technical difficulties) involved in sharing a secure element, Wallet and *only* Wallet is able to utilize the internal secure element on a Wallet-enabled device. That means Google is directly managing every layer of the process. And guess what: Verizon wasn’t OK with this. It really has nothing at all to do with Block C rules or apps—this is a fight over who gets to control the internal secure element. This isn’t about letting *consumers* run the software they want, it’s about letting *Google*

Hence, this was not even a “net neutrality” issue, and any arguments to the contrary would be fully cognizable under a simple no-blocking regime in any event. The “Google Wallet” experience thus provides no support whatsoever for intrusive regulation beyond such a regime.

The Title II proponents fare no better when they describe AT&T’s four-month phase-in of FaceTime on its cellular network as a form of “block[ing]” and as evidence of the need for Title II regulation. *E.g.* EFF Comments 14. As AT&T has repeatedly explained, it initially took a “cautious approach” when Apple announced in 2012 that the FaceTime app would be preloaded on the forthcoming iOS6 operating system and usable for the first time on cellular networks. AT&T had tens of millions of iPhone customers (far more than any other carrier), and it was reasonably concerned that this unusually bandwidth-intensive application would have an “immediate” and “adverse impact on the services our customers expect—voice quality in particular—if usage of FaceTime exceeded expectations.”²⁶ This is thus a paradigmatic example of “reasonable network management,” and after conducting an informal investigation, the Commission took no action. Title II proponents ignore all of these facts. But even if AT&T’s incremental approach *could* have been challenged as something other than reasonable network management, it still would have fallen squarely within the ambit of the no-blocking rule adopted in the *2010 Open Internet Order*. Thus, like the other “blocking” or “throttling” allegations, this one also provides no evidence of any need for full-blown Title II regulation.

run the software and control the hardware it wants.”) (emphasis in original). In fact, most of the allegations about Google Wallet involved not general “net neutrality” principles, but “openness” obligations specific to the C Block of 700 MHz spectrum, *see id.*, which Verizon obtained at a significant discount at auction because it agreed to comply with those obligations.

²⁶ *See, e.g.*, Jim Cicconi, *A Few Thoughts on FaceTime*, AT&T Public Policy Blog (Nov. 8, 2012), <https://www.attpublicpolicy.com/broadband/a-few-thoughts-on-facetime/>.

EFF (at 14-15) and the EFF-associated “Internet Engineers” (at 37-39)²⁷ also list several “incidents” that have little to do with net neutrality in the first place, such as practices by ISPs that allegedly subjected end users to unexpected ads or forms of data collection. To the extent that any FCC role is needed to address such non-ISP-specific consumer-protection concerns, the Commission has undisputed authority to require unusually prominent disclosures of such practices. *See* AT&T Comments 109-10. Of course, a better, more comprehensive approach would be to give the Federal Trade Commission authority over data collection and privacy practices of all Internet companies, including the data mining titans that are completely outside the purview of the FCC’s Title II regime.

Because there have been so few genuine net neutrality-related “problems” in the United States, some pro-Title II commenters resort to complaining about blocking and throttling by state-controlled ISPs in “[c]ountries like Vietnam and Saudi Arabia.” Public Knowledge Comments 107. These foreign “incidents” are irrelevant not only because of obvious cultural and market differences, but also because they, too, could be addressed through baseline no-blocking/no-throttling rules if any ISP were ever foolish enough to try them in the United States. Indeed, that Public Knowledge and others perceive any need to cite these obscure examples simply underscores the paucity of “problems” that require a regulatory solution of any kind.

²⁷ These “EFF Internet Engineers” comments are styled as “Joint Comments of Internet Engineers, Pioneers, and Technologists.” For detailed critiques of that submission, see Richard Bennett, *EFF’s Engineers Letter Avoids Key Issues About Internet Regulation*, High Tech Forum (July 21, 2017), <http://hightechforum.org/effs-engineers-letter-avoids-key-issues-about-internet-regulation/>; Richard Bennett, *Big Picture Issues with EFF Letter*, High Tech Forum (July 27, 2017), <http://hightechforum.org/big-picture-issues-with-eff-letter/>; Richard Bennett, *The Information Network vs. the Conversation Service*, High Tech Forum (Aug. 8, 2017), <http://hightechforum.org/information-vs-conversation/>.

Apart from purported blocking and throttling practices, Title II proponents also complain about various other ISP business plans that they claim threaten an open Internet, but the practices they cite pose no such threat and are, in fact, pro-competitive. For example, several commenters attack what they describe as Comcast’s plan to “favor its own video-on-demand streaming services over third-party competitor services, by charging customers for the data they used to stream competitor services.” EFF Internet Engineers Comments 35; *see also* EFF Comments 14. These commenters neglect to mention that the Comcast service at issue (Xbox Xfinity) was not delivered over the Internet in the first place. It was instead a specialized service delivered over a closed IP platform and thus, like traditional cable services, was not subject to the data allowances that Comcast designed for Internet access services.²⁸ Ultimately, what these commenters attack is exactly what public policy should encourage: a consumer-friendly upgrade from legacy cable technology to more advanced IP technology (in this case, for video services). *See* § I.C.1, *infra* (discussing similar attacks on Comcast’s Stream TV service).

Another familiar target of regulatory extremists is T-Mobile’s “Binge On” program, a zero-rating initiative launched in 2015. EFF (at 14-15) describes Binge-On as a form of “throttl[ing]” and “[d]iscriminat[ion],” but it was wildly popular with consumers, and independent industry analysts credited the program for T-Mobile’s major subscribership gains in

²⁸ *See* Michael Powell, *No Good Deed Goes Unpunished—Washington Advocacy Run Amok*, NCTA (Mar. 28, 2012), <https://www.ncta.com/platform/technology-devices/tech-discussions/no-good-deed-goes-unpunished-washington-advocacy-run-amok/>. The *2010 Open Internet Order* explicitly endorsed usage-based pricing for Internet access services. *See id.* ¶ 72 (“[P]rohibiting . . . usage-based pricing and requiring all subscribers to pay the same amount for broadband service, regardless of the performance or usage of the service, would force lighter end users of the network to subsidize heavier end users. It would also foreclose practices that may appropriately align incentives to encourage efficient use of networks.”).

2015 and described it as “a win for everyone.”²⁹ To put it mildly, the public interest is disserved by any regulatory regime that casts doubt on the legality of such innovative and pro-competitive programs.

Along the same lines, the same critics recycle their misguided attacks on AT&T’s sponsored data arrangement with DIRECTV, which they cite as an example of “discrimin[ation]” that regulators should stamp out before it becomes too popular with consumers.³⁰ Those criticisms, too, are incoherent. The AT&T/DIRECTV arrangement is economically equivalent to a jointly marketed bundled discount arrangement, under which DIRECTV gives its customers monthly rebates to cover any incremental retail fees charged by AT&T Mobility that are attributable to their consumption of DIRECTV’s online services. Everyone—including net neutrality absolutists—should acknowledge that such a bundled rebate program would be pro-consumer: indeed, the FCC cited precisely such discount arrangements as a procompetitive benefit when approving the AT&T/DIRECTV merger.³¹ No one has ever explained how a sponsored data arrangement could raise competitive concerns when its economic equivalent so plainly would not.

²⁹ Adam Levy, *Look How Smart T-Mobile’s Binge On Is*, THE MOTLEY FOOL (Jan. 27, 2016), <http://www.fool.com/investing/general/2016/01/27/look-how-smart-t-mobiles-bingeon-is.aspx>; see EFF Comments 15.

³⁰ *E.g.*, EFF Comments 14. Under this arrangement, AT&T has zero-rated DIRECTV content so that it does not count against data allowances for AT&T Mobility customers on tiered-data plans. DIRECTV compensates AT&T Mobility for that treatment by paying a per-MB rate comparable to the lowest rates AT&T charges in the competitive market for wholesale network capacity, and AT&T Mobility offers the same terms to any other online video provider, irrespective of the volume of data it wishes to sponsor. See AT&T Comments 55-57.

³¹ See *AT&T-DIRECTV Merger Order* ¶¶ 3-4 (“the combined AT&T-DIRECTV will increase competition for bundles of video and broadband, which, in turn, will stimulate lower prices, not only for the Applicants’ bundles, but also for competitors’ bundled products—benefiting consumers and serving the public interest”).

Of course—just like a bundled rebate program—sponsored data arrangements increase competitive pressure on OVD rivals to up their own game, whether by lowering prices, improving service quality, or entering into sponsored data arrangements with AT&T or other mobile providers. But that is competition, not exclusion, and it unambiguously benefits consumers. The pro-Title II commenters miss this basic point. Their advocacy tends to assume that any joint commercial initiative by an ISP and particular edge providers is bad if it confers some benefit on those edge providers vis-à-vis their rivals—even if the joint initiative increases consumer welfare. *E.g.*, EFF Comments 14. But sound regulatory policy focuses on the interests of *consumers* rather than the interests of particular *competitors*.³² Here, no one, including those that cite sponsored data as a threat to an open Internet, identifies any harm whatsoever *to consumers* from AT&T’s sponsored data arrangement. And no one *could* identify any such harm because the arrangement could not plausibly catapult DIRECTV’s streaming video service to market dominance, which is one of several necessary conditions that would need to be met before such an arrangement could even potentially harm consumers.³³

In short, try as they might, proponents of Title II cannot identify even one example of ISP conduct in the past decade that posed a threat to Internet openness and no episode of any kind

³² *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477, 488 (1977) (emphasis and internal quotation marks omitted); *see also Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 458-459 (1993).

³³ Sound competition policy views price reductions as pro-consumer in almost all circumstances and condemns them only if the firm undertaking them has or could gain monopoly power, it lowers prices below an appropriate measure of the firm’s costs, *and* there is a dangerous probability that those below-cost prices will marginalize all competitors and then allow the monopolist to recoup its lost profits by charging monopoly-level prices. *See, e.g., Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209 (1993); *Pac. Bell Tel. Co. v. linkLine Commc’ns, Inc.*, 555 U.S. 438 (2009) (applying same analysis to “price squeeze” claims). Here, there can be no credible claim of predatory pricing because neither AT&T Mobility nor DIRECTV is or could conceivably become a monopolist in any relevant market. Indeed, they are not even the leading providers in their respective markets: AT&T has fewer mobile subscribers than Verizon, and DIRECTV has far fewer subscribers than cable in the geographic markets covering the overwhelming majority of American consumers.

ever that could even logically support market intervention beyond a baseline no-blocking/no-throttling regime. The historical record thus provides no justification at all for reclassification.

2. Broadband Competition Makes Title II Regulation Unnecessary.

Just as there is no historical record of market “problems” that Title II regulation is needed to address, there is also no *theoretical* basis for concern that requires substantial regulatory intervention, let alone Title II rules. Market dynamics are more than sufficient to address any such concern, particularly with a baseline no-blocking/no-throttling regime and antitrust as backstops. No broadband provider has an interest in defeating consumers’ long-settled expectation of access to the full Internet because, if it did so, it would devalue its service and lose its customers to rivals in this highly competitive marketplace.

Some pro-Title II commenters respond to that point by characterizing broadband markets as “monopolies” or “duopolies.”³⁴ As discussed below, that account is grossly inaccurate even as a description of the fixed-broadband segment. Despite the headwinds of Title II regulation, fixed broadband continues to exhibit heavy capital investment in new technologies, ever-greater bandwidths, and other service improvements—the hallmarks of a competitive market. Worse, Title II advocacy tends to ignore *mobile* competition altogether. That oversight is no surprise because mobile competition is so obvious and fierce that it obliterates the pro-Title II advocates’ regulatory pretext. *See* AT&T Comments 23-27.³⁵

³⁴ *See, e.g.*, EFF Comments 11 (“broadband service naturally tends towards monopoly”); *id.* at 16 (“most Americans live in duopoly markets while a majority only have one choice for high-speed broadband”); Free Press Comments 70 (“the *Notice* ... would have us believe that everyone suddenly has lots of choices when they look for options other than the local cable monopoly”); *id.* at 113 (“[t]he broadband market overall remains a cable-LEC duopoly”).

³⁵ *See also* Comments of AT&T Inc., *State of Mobile Wireless Competition*, WT Docket No. 17-69 (May 8, 2017) (“AT&T 2017 Wireless Competition Comments”); *see also* Comments of CTIA, *State of Mobile Wireless Competition*, WT Docket No. 17-69 (May 8, 2017) (providing additional evidence of

Those few commenters who do address mobile competition simply misrepresent the facts. For example, the Open Technology Institute at New America (“OTI”) claims that “[h]igh consumer switching costs,” including “Early Termination Fees,” “make it impractical for consumers to switch back and forth” among mobile providers. OTI Comments 109. This must come as news to the roughly *one-quarter* of American mobile subscribers who do in fact switch providers *each year*.³⁶ It also ignores both the increased prevalence of handset “unlocking” and the competition-induced decisions of all four national carriers to phase out long-term contracts along with the early termination fees that accompany them.³⁷

This effort to ignore or trivialize mobile competition exemplifies the shell game played by Title II advocates. The *Title II Order* imposed common carrier regulation on all broadband providers, mobile as well as fixed. Unlike the *2010 Open Internet Order*, it explicitly rejected any light-touch regime for mobile. *See Title II Order* ¶ 88. The *Title II Order*’s supporters want to preserve that aspect of the current regime, yet they refuse to address mobile broadband competition on its own terms. In this and many other respects, pro-Title II advocacy exhibits a radical mismatch between the asserted regulatory problem and the proposed regulatory solution.

Moreover, consideration of mobile competition is necessary to address the regulatory treatment not only of mobile broadband services, but also of fixed services. The line between

wireless competition); AT&T Econ. Decl. ¶¶ 31-44 (showing that mobile marketplace satisfies all relevant criteria for effective competition).

³⁶ *See* Nineteenth Report, *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993 (Annual Wireless Competition Report)*, WT Docket No. 16-137, ¶ 18 (Sept. 23, 2016) (noting reported “annual industry-wide churn rate of 23.6 percent” in 2015).

³⁷ *See* AT&T Comments 25-26; David Goldman, *AT&T Is Doing Away with Two-Year Contracts*, CNN (Dec. 31, 2015), <http://money.cnn.com/2015/12/31/technology/att-2-year-contracts/>; Matt Elliott, *How to Unlock Your Phone for Use with Another Carrier*, CNET (Sept. 8, 2016), <https://www.cnet.com/how-to/how-to-unlock-your-phone-for-use-with-another-carrier/>.

“fixed” and “mobile” broadband markets is already blurred today, and it is likely to disappear altogether with the rise of 5G networks. *See* AT&T Comments 31; AT&T Econ. Decl. ¶ 64.

Those networks will consist of many small wireless cells connected seamlessly by dense webs of fiber backhaul facilities, and they will have even greater capacity than today’s DOCSIS 3.0/3.1 cable networks. Unlike today’s cable infrastructure, which provides that capacity only to a fixed location, 5G wireless technology will provide that capacity almost ubiquitously as customers move from one place to the next. These new broadband capabilities will increasingly enable mobile broadband providers to compete directly with cable and other fixed broadband rivals.

Thus, while both mobile and fixed broadband are highly competitive today, they will become even more competitive as mobile providers roll out 5G technology and cable companies deploy their own 5G networks to meet the onslaught of new competition. *See* AT&T Comments 31. And that day is fast approaching. Indeed, analysts predict that 25 percent of U.S. mobile broadband subscriptions will use 5G by 2022.³⁸ And Nokia’s CEO recently observed “that industry momentum around 5G is accelerating earlier than the company had initially expected, such that he now expects to see notable trials in 2018 and ‘meaningful deployments’ by 2019 in the United States[.]”³⁹ Any rules adopted by the Commission in this proceeding must account for this impending paradigm shift, in which fixed and mobile services will compete head to head.

³⁸ Ericsson, *Ericsson Mobility Report: On the Pulse of the Network Society*, at 2 (Nov. 2016), <https://www.ericsson.com/assets/local/mobility-report/documents/2016/ericsson-mobility-report-november-2016.pdf>; *see also* Statista, *The Next Frontier: 5G to Hit the Mainstream by 2022*, ECN MAGAZINE (May 31, 2017), <https://www.ecnmag.com/news/2017/05/next-frontier-5g-hit-mainstream-2022>.

³⁹ Mike Dano, *Nokia CEO: 5G accelerating earlier than expected, creating ‘some near-term risk,’* FierceWireless (July 31, 2017), <http://www.fiercewireless.com/5g/nokia-ceo-5g-accelerating-earlier-than-expected-creating-some-near-term-risk>.

Even if we ignore the disciplining effects of mobile alternatives to fixed broadband services, the pro-Title II advocates' arguments about fixed-line competition would still fail as a factual matter. Apart from those hard-to-serve geographic areas that are the focus of the Connect America Fund, the fixed-line segment is more than competitive enough to discipline prices and protect consumer interests in an open Internet. According to a recent Commission survey, 79% of residential census blocks have at least three providers offering fixed broadband services with a minimum of 10 Mbps downstream and 1 Mbps upstream, and fully 97% have at least two such providers.⁴⁰ As explained in our opening comments (at 29-30), the high fixed costs and low marginal costs of this market segment ensure competitive conditions even in areas with very few competitors because, with the loss of each customer, a provider saves little in the way of costs but loses substantial revenues. Indeed, the Commission itself has concluded that in such contexts, two competitors can be sufficient to ensure effective competition.⁴¹

The pro-Title II commenters try to wish this fixed-line competition away by gerrymandering the evidence—specifically, by ignoring any service, no matter how successful with consumers, that does not meet some arbitrary throughput benchmark, usually 25 Mbps. *E.g.*, EFF Comments 8-9. As AT&T has elsewhere explained, 25 Mbps is a completely contrived number, and it is irrelevant to the competitive analysis.⁴² A throughput of 10 Mbps is

⁴⁰ FCC, *Internet Access Services: Status as of June 30, 2016*, at 6, Fig. 4 (Apr. 2017), https://apps.fcc.gov/edocs_public/attachmatch/DOC-344499A1.pdf. These figures, moreover, significantly understate the percentage of households that have access to the specified number of competitive options because the census blocks that have larger numbers of fixed broadband providers are likely to be the more populous ones.

⁴¹ Report and Order, *Business Data Services in an Internet Protocol Environment*, WC Docket No. 16-143, FCC 17-43, ¶ 120 (Apr. 28, 2017).

⁴² *See, e.g.*, Reply Comments of AT&T, *Inquiry Concerning the Deployment of Advanced Telecomm's Capability*, GN Docket No. 14-126, at 2-3 (Sept. 19, 2014).

sufficient to support not only one, but two simultaneous high-definition video streams in a single household. *See* AT&T Comments 28 (citing Netflix technical guidance). Few households need anything approaching 25 Mbps speeds, which are sufficient to support *five* simultaneous high-definition video streams. Indeed, the same Commission that adopted the *Title II Order* recognized the value of 10 Mbps services by establishing 10 Mbps as the threshold for providers receiving funding under the Connect America Fund II program.⁴³

3. Rhetoric About “Gatekeepers” and “Externalities” Is No Substitute for a Market Power Analysis.

Ultimately, because the pro-Title II commenters cannot ground their advocacy in established forms of market power analysis, they fall back on the premise that they need not do so in order to justify intrusive regulation. In that respect, they mimic the *Title II Order* itself, which made no market power findings and relied instead on a flawed analytical shortcut: the theory that *every* ISP, large and small alike, has “gatekeeper” (or “terminating monopoly”) power over Internet content providers. *See Title II Order* ¶ 80 & n.130; *id.* ¶ 84. That theory is incoherent in this context, and the Commission should take this opportunity to repudiate it.

Quoting a law review article, Public Knowledge introduces the theory as follows: “the [gatekeeper] concept holds that a consumer-facing network provider, no matter how small or how subject to retail competition, generally possesses monopoly power vis-à-vis third-party senders of communications traffic to its customers.”⁴⁴ Public Knowledge acknowledges in passing that the quoted article “critic[izes] ... how the concept is applied.” *Id.* That is a

⁴³ *See* Report & Order, *Connect America Fund*, WC Docket No. 10-90, FCC No. 14-190, ¶¶ 15-29 (Dec. 18, 2014).

⁴⁴ Public Knowledge Comments 73-74 (quoting Jonathan E. Nuechterlein & Christopher S. Yoo, *A Market-Oriented Analysis of the “Terminating Access Monopoly” Concept*, 14 Colo. Tech. L.J. 21 (2015) (“*Market-Oriented Analysis*”)).

considerable understatement. The article criticizes the FCC for applying the gatekeeper concept in *this very setting*, explaining that if a broadband ISP had substantial market power vis-à-vis edge providers by virtue of serving a discrete set of customers,

[o]ne would expect each of those ISPs to extract inefficiently high rates from the interconnecting backbone providers and content delivery networks that deliver incoming Internet traffic bound for the ISP's customers. In fact, such ISPs typically charge little or nothing for such access to their customers. To the contrary, the money often flows in the opposite direction: any ISP that is not a Tier 1 network typically pays third-party networks for transit services, which include the service of terminating traffic to that ISP's customers.

Market-Oriented Analysis at 31. Similarly, if gatekeeper dynamics “threatened endemic market failures for any unregulated exchange of communications traffic bound for any given provider’s single-homed customers, one would expect each [last-mile subscription video provider] to charge content providers inefficiently high rates for rights of ‘access’ to the [last-mile provider’s] customers. In fact, the consideration often flows in the opposite direction, from [last-mile providers] to interconnecting content providers.” *Id.* at 29. In sum, the article concludes, “gatekeeper” status “does not itself generally threaten market failures except in very limited circumstances,” *id.* 23, typically involving person-to-person voice calls, *id.* at 34-35.

That conclusion reflects a broad economic consensus. For example, the Economists’ Declaration submitted with our opening comments explains that the *Title II Order* “misapplie[d] the concept of terminating access monopoly” and that “the preconditions for terminating access monopoly do not exist at all in the present context.” AT&T Econ. Decl. ¶ 65. Andres Lerner and Janusz Ordoover likewise conclude that the notion “that broadband Internet access providers have monopoly power regardless of the degree of competition over users is flawed as a matter of

economic logic.”⁴⁵ Similarly, George Mason professor Joshua Wright—at the time an FTC Commissioner—criticized the *Title II Order*’s use of “gatekeeper” analysis with the following observations:

There are gatekeepers everywhere. McDonald’s is the gatekeeper of Coca-Cola beverages sold inside McDonald’s restaurants. Starbucks is the gatekeeper to my morning cup of coffee, and the supermarket is the gatekeeper to your access to Cheerios breakfast cereal in the supermarket aisle. A gatekeeper becomes an economic problem potentially worthy of regulation only when the gatekeeper stands between consumers and the *only* source of a desirable good or service. If consumers are able to get Coca-Cola or other similar beverages from sources other than McDonald’s, then McDonald’s will be unable to manipulate consumers’ access to Coca-Cola in a way that makes consumers worse off because if it does, consumers are able to buy Coca-Cola from other sources.⁴⁶

In short, Commissioner Wright concluded, “the ‘gatekeeper’ issue identified by Chairman Wheeler is a problem worthy of regulation only insofar as the broadband industry is a natural monopoly or otherwise exhibits meaningful monopoly power The simple fact that there are multiple suppliers of both wired and wireless broadband internet renders this justification of regulation totally unpersuasive.”⁴⁷

The Commission should now confirm that “gatekeeper” rhetoric—which pervades the comments supporting continued Title II regulation—has no relevance to open Internet issues and

⁴⁵ Verizon Comments, Lerner & Ordoover Decl. ¶ 13; *see id.* ¶¶ 73-91 (elaborating on that conclusion and discussing relevant scholarship); Georgetown CBPP Econ. Comments 3 (“The same ‘monopoly’ could be said to exist for customers who have entered a movie theater or restaurant. Yet this everyday phenomenon has never been seen as a market failure demanding the imposition of comprehensive regulation.”).

⁴⁶ Remarks of FTC Commissioner Joshua Wright, *Net Neutrality Meets Regulatory Economics 101*, at 10 (Feb. 25, 2015) (“*Comm’r Wright Net Neutrality Remarks*”) (footnote omitted) https://www.ftc.gov/system/files/documents/public_statements/626591/150225wrightfedsoc.pdf; *see also Verizon v. FCC*, 740 F.3d 623, 663-64 (D.C. Cir. 2014) (Silberman, J., dissenting in relevant part) (“[A]ll retail stores, for instance, are ‘gatekeepers.’ The term is thus meaningful only insofar as the gatekeeper by means of a powerful economic position vis-à-vis consumers gains leverage over suppliers.”).

⁴⁷ *Comm’r Wright Net Neutrality Remarks*, *supra*, at 11.

is no substitute for genuine economic analysis. Some commenters suggest that the Commission is stuck with this concept in perpetuity because it persuaded the D.C. Circuit to accept it in *Verizon* and *USTelecom*. E.g., Incompas Comments 38. This is nonsense. As noted in our opening comments (at 22-23 n.35), the D.C. Circuit addressed the issue only in dicta and did no more than defer to the Commission’s sloppy economic analysis.⁴⁸ Nothing in those decisions precludes the Commission from revisiting the issue and affirming the consensus that gatekeeper rhetoric in this context is “economically vacuous” (Georgetown CBPP Comments 3).

Finally, some commenters repeat the *Title II Order*’s rationale (¶¶ 76-77, 83) that common carrier regulation is necessary because, as an open platform for innovation and free expression, the Internet exhibits many positive externalities (or “spillovers”) that individual broadband ISPs may not completely internalize.⁴⁹ This rationale for intrusive regulation is also untenable. As discussed in our opening comments (at 35-37), externalities are ubiquitous throughout the economy and do not typically justify any regulatory response, let alone a massive one like the *Title II Order*. To the extent some regulatory response is warranted here, a baseline no-blocking/no-throttling regime is more than sufficient to preserve the externalities of the open Internet.

⁴⁸ Specifically, in response to Judge Silberman’s criticism of “gatekeeper” logic in dissent, the *Verizon* majority deemed that criticism waived because it had not been adequately raised on appeal, and in dicta it deferred to the Commission’s finding that ISPs need not have market power “to impose restrictions on [particular] edge providers.” *Verizon*, 740 F.3d at 647-648. And in *USTelecom*, the panel majority found that the market power issue raised by Judge Williams was not presented because the Commission was not *required* to make findings on that empirical issue in order to reclassify broadband as a telecommunications service. *USTelecom*, 825 F.3d at 708.

⁴⁹ E.g., Public Knowledge Comments 117 (citing Brett M. Frischmann, *An Economic Theory of Infrastructure and Commons Management*, 89 MINN. L. REV. 917, 1004-1022 (2005)); Internet Association Comments 22-23.

In this respect, too, the *Title II Order* and its supporters indulge the same radical mismatch between the market problem they perceive (externalities) and their preferred regulatory solution (full-blown common carrier regulation). As then-FTC Commissioner Wright observed as the *Title II Order* was being rolled out:

An argument that the broadband market ought to be regulated because of externalities not captured in the bargains between broadband providers and content companies may be economically coherent, but it lacks any basis in fact. ... [E]ven if there is some evidence of an externality problem with contracts providing for priority access to certain content providers—and I have not seen such evidence—the FCC has numerous regulatory options to address the problem short of outright prohibition.

Comm’r Wright Net Neutrality Remarks at 12-13.

In short, the pro-Title II commenters’ rhetoric about “externalities” and “free expression” reflects a familiar failure of logic. If an asserted regulatory concern (preserving the Internet as an open platform for innovation and free expression) can be addressed with a narrow regulatory solution (here, antitrust and perhaps a no-blocking/no-throttling regime), it cannot justify sweeping prohibitions on entire categories of conduct that do not generally implicate that concern. As discussed in the next section, the theoretical prospect of “paid prioritization” raises no genuine concern at all, let alone a concern that is so imminent, generalized, and serious that it justifies a flat ban on all paid prioritization arrangements of any type.

4. Speculative Concerns About Theoretical “Paid Prioritization” Arrangements Cannot Justify Title II Regulation.

The *2014 NPRM* rightly observed (¶¶ 4, 89, 93) that the *Verizon* decision gave the Commission a clear “blueprint” for adopting baseline no-blocking, no-throttling, and transparency rules under a non-Title II regime. To our knowledge, no commenter seriously

contests that point.⁵⁰ Instead, pro-Title II commenters argue more generally that *Verizon* forecloses a non-Title II basis for what they call “strong”⁵¹ or “real”⁵² net neutrality rules. Those adjectives are code for expansive “nondiscrimination” rules and a flat ban on all paid prioritization. It is true that, once ISPs are restored to their longstanding “information service” classification, the statutory bar on treating non-Title II providers as common carriers will preclude that flat ban. *See* AT&T Comments at 101-04 (discussing 47 U.S.C. § 153(53)). The question is whether that fact supplies a valid policy rationale for retaining the Title II classification (on the assumption that such a classification were legally sustainable under the statutory language). It does not supply such a rationale, because the flat ban never made sense in the first place.

As an initial matter, the ban is radically premature because there has been no “paid prioritization” of mass market Internet traffic at any point in the history of broadband, and the pro-Title II parties cite no concrete plans by any ISP, now or in the past, to introduce any such arrangement for the first time.⁵³ As explained in our opening comments, the absence of paid-

⁵⁰ Akamai (at 15) asserts, without elaboration, that “[t]he current bright-line rules against blocking and throttling ... may not be sustainable under *Verizon* if the Commission adopts the NPRM’s proposed information service classification of broadband.” That is incorrect. As the *2014 NPRM* recognized (at ¶¶ 4, 89, 93), the *Verizon* decision indicates that the Commission can indeed adopt no-blocking/no-throttling rules under non-Title II sources of authority so long as it does not also retain a flat ban on paid prioritization. *See* AT&T Comments 101-04. Alternatively, in lieu of substantive restrictions, the Commission could invoke ancillary authority to require prominent disclosures to consumers before ISPs could engage in blocking and throttling unjustified by reasonable network management principles. *See id.* 109-10; *see also* CenturyLink Comments 54.

⁵¹ *E.g.*, Internet Ass’n Comments 33; Public Knowledge Comments 116.

⁵² *E.g.*, Free Press Comments 38.

⁵³ The Commission did not categorically prohibit such arrangements until the *Title II Order* in 2015. Although the *2010 Open Internet Order* announced a presumption against such arrangements for fixed-line ISPs, it exempted mobile ISPs even from that presumption. *See 2010 Open Internet Order* ¶ 104 (declining to impose nondiscrimination requirement on mobile ISPs); *see generally* Section I.B.1, *supra*.

prioritization arrangements is understandable. ISPs have not yet faced any strong need to prioritize IP packets *within* the stream of Internet traffic because, under the Commission's rules, they can already prioritize the IP packets associated with latency-sensitive "specialized services" (such as voice or video) over *all* IP packets associated with "Internet" traffic that share the same physical broadband facilities. AT&T Comments 38-39.

Given the absence of any historical precedent, the commenters in this proceeding do not even agree on what paid prioritization *within* the "Internet" traffic stream would mean in practice. Like AT&T, Comcast views the concept mainly as a solution for supporting a few unusually latency-sensitive real-time applications (such as high-definition videoconferencing and telemedicine) involving participants on multiple ISP networks, with little or no effect on other applications. *See* Comcast Comments 56-57. In contrast, Title II advocates ignore that technological benefit and caricature any form of paid prioritization as a pretext contrived by ISPs to sell "fast lane" access to the largest edge providers (regardless of their QoS needs) while "banish[ing] everyone else "to the 'slow lanes' of the Internet, dooming them to an eventual destruction[.]" Public Knowledge Comments 119. As discussed in our opening comments and below, that view of paid prioritization is absurd, and its endless recitation by Title II advocates is irresponsible fear-mongering. Our central point here, however, is more general: since paid prioritization does not yet exist and stakeholders cannot even agree on what form it would take, what it would cost, and who would or would not use it, regulators cannot rationally draw *any* categorical conclusions about its impact on Internet openness, much less preempt every form of the service in advance.

Indeed, in the absence of Commission interference, paid prioritization might well take any number of forms that would benefit consumers and edge providers alike. For example, it

might be used to prioritize real-time applications that have unusually acute QoS needs but are less susceptible to an on-net “managed service” solution because they often involve participants who subscribe to different ISPs and whose traffic must therefore cross multiple networks. *See* AT&T Comments 39 (discussing multiplayer online gaming and videoconferencing); Comcast Comments 56-57 (discussing, *e.g.*, telepresence). As our opening comments also explain (at 40), the use of price signals—*i.e.*, payment for prioritization—may often be necessary in such contexts to overcome the traditional collective action problem that has kept any given network from honoring priority markings on IP packets originated by other networks. In other words, as in all other markets, scarce resources (here, QoS guarantees for unusually latency-sensitive traffic) are most efficiently allocated by means of private agreements for the exchange of consideration.⁵⁴ No one identifies any plausible basis for assuming that these theoretical practices, if and when they become a reality, would make anyone worse off, let alone threaten the open Internet. Indeed, as we have shown (AT&T Comments 41 n.73), prioritized services are a staple even of common carriage regimes in other industries because of their obvious efficiency benefits.

Instead, the pro-Title II commenters recycle the same simplistic misconceptions about paid prioritization that the *Title II Order* used as rationales for its flat ban. First, many such commenters argue that it would corrupt the supposedly “neutral” character of the Internet to allow any company to pay an ISP for QoS guarantees because, they say, bigger companies will

⁵⁴ For example, some multiplayer videogames may be more susceptible than others to latency and jitter. Because all videogame providers would be happy to receive prioritization across multiple networks if it costs them nothing, only the use of price signals will give them incentives to request prioritization only for the videogames that need it the most to function optimally. Of course, there may also be contexts in which ISPs may collectively agree to prioritize packets on an application-wide basis (such as voice) without exchange of consideration.

outspend the smaller ones and thereby keep them small. *E.g.*, Internet Ass’n Comments 28. This is nonsense. As explained in our opening comments (at 43-44), the Internet is not, and never has been, “neutral” in the traffic flows that affect how customers experience the services offered by different edge providers. For example, Google, Amazon, and Netflix have spent billions of dollars on content delivery networks (CDNs) that enable them to outperform less well-financed rivals that have not obtained similar functionality. More generally, these and other Internet giants have obvious scale advantages and can spend more than their smaller rivals on any number of competitively material factors, such as advertising, R&D, and employee compensation. Yet no one suggests that the government should intervene to level out those sources of competitive inequality among edge providers.

Of course, the advantages of size or incumbency do not keep start-ups with promising business plans from obtaining the capital financing they need to succeed. And the capital markets would play that role just as well in supporting paid QoS agreements as they have long played in supporting conventional CDN arrangements. If anything, paid QoS agreements would give upstart edge providers a promising alternative to CDN functionality as they seek to compete with larger, more established companies that have already sunk billions of dollars into the CDNs that make them formidable incumbents—which may help explain why some of those incumbents seek to suppress that disruptive potential with regulation.⁵⁵

⁵⁵ The Internet Association—which represents Amazon, Google, Netflix, and other Internet giants that have built their success on billion-dollar CDN investments—argues that “unlike ISPs, CDN providers do not serve a gatekeeping role.” Internet Ass’n Comments 29. Again, that “gatekeeper” rhetoric is empty and cannot substitute for market-power analysis as a basis for regulation. *See* § I.B.3, *supra*. The Internet Association adds that “CDN capacity can be self-provided,” as Amazon, Google, and Netflix have done, “or obtained from a third party.” Internet Ass’n Comments 29. That is true but irrelevant: the point is that only companies with substantial resources can obtain CDN functionality, whether they build their own facilities or outsource to third parties. Finally, the Internet Association claims that the

Some pro-Title II commenters separately argue that paid prioritization is problematic on the theory that packet transmission within ISP access networks is a “zero-sum game” for Internet applications. *E.g.*, Public Knowledge Comments 122-23. Under this zero-sum theory, any benefit for the performance of some applications would inflict an equal and opposite harm on the performance of other applications. That is wrong because latency-sensitive, real-time applications have qualitatively different performance needs than do non-latency-sensitive, non-real-time applications, such as emails or webpage downloads. *See* AT&T Comments 44-45. Prioritizing the packets for a telepresence videoconferencing session or a World of Warcraft game during occasional moments of network congestion will have no meaningful effect on the experience of opening an email attachment even if doing so during those same moments takes a few milliseconds longer than otherwise. *See id.*; *see also* *USTelecom*, 825 F.3d at 763 (Williams, J., dissenting in relevant part) (“providing special speed for [applications] (for which timeliness and freedom from latency and jitter—delays or variations in delay in delivery of packets—are very important)” will come “at little or no cost to services where timeliness (especially timeliness measured in milliseconds) is relatively unimportant”).

Finally, various parties contend that if paid-prioritization arrangements ever became a market reality, they would give ISPs perverse incentives to “creat[e] and then exploit[] artificial scarcity” by radically degrading their best-effort (*i.e.*, non-prioritized) access to the Internet. Free Press Comments 170.⁵⁶ This, too, is nonsense. Consumers expect high-quality access to

availability of the CDN option “undermines” any “justification for paid prioritization arrangements.” *Id.* This is like saying that the availability of U.S.-made cars undermines any justification for allowing the import of foreign cars. Ultimately, what the Internet Association seeks is outright protectionism: excluding paid prioritization services as a potential competitive alternative to CDN functionality.

⁵⁶ Public Knowledge reveals a misunderstanding of basic economics when it argues that “to optimize these prioritized networks ... broadband providers will have to also increase the prices they

the full Internet, and any ISP would hemorrhage customers if it allowed its best-effort platform to atrophy and thereby impaired its customers' access to the vast majority of Internet applications and content.⁵⁷ Indeed, if triple-play broadband providers had incentives to degrade best-effort Internet traffic to divert traffic to QoS-guaranteed pathways (such as pay-TV services), they would have already done so. They would not have done what they actually have done: invested hundreds of billions of dollars over the past dozen years in expanding the broadband Internet access speeds of their networks. *See, e.g.*, AT&T Comments 28-29. For example, the best-effort Internet access service that AT&T offers today, over the shared U-verse (IPTV, VoIP, and Internet) platform, is faster by orders of magnitude than the DSL service that AT&T offered before it launched a QoS-guaranteed subscription video service to consumers over the same shared IP platform. There is no reason to expect a different result when, *within* the Internet access portion of a shared platform, providers offer QoS enhancements to the providers of the performance-sensitive applications that need them.

5. Regulatory Oversight of Internet Interconnection Is Unnecessary and Counterproductive.

A few commenters—mainly large network companies (Cogent and Level 3) and their trade association (Incompas)—urge the Commission to retain Title II classification to maintain its sole asserted basis for regulating the terms of traffic exchanges (interconnection) between the

charge consumers.” Public Knowledge Comments at 117. To the extent that paid prioritization agreements become a commercial reality, they will create a double-sided market and, under well-established economic principles, will exert *downward* pressure on consumer prices. *See, e.g.*, Robert Litan & Hal Singer, *THE NEED FOR SPEED: A NEW FRAMEWORK FOR TELECOMMUNICATIONS POLICY FOR THE 21ST CENTURY* 43 (2013) (addressing “see-saw principle”); Aaron Schiff, *The “Waterbed” Effect and Price Regulation*, 7 *REV. OF NETWORK ECON.* 392, 403 (2008).

⁵⁷ The issue discussed here is of course distinct from whether ISPs could or would “throttle” particular content so that its performance falls below that of other applications delivered via the best-effort platform. Again, AT&T would support a no-blocking/no-throttling regime; the only question here is whether a flat ban on paid prioritization is also necessary.

Internet's constituent IP networks. But such regulation is unnecessary and counterproductive, and it supplies no policy basis for maintaining Title II classification. Indeed, since the dawn of the commercial Internet, the federal government recognized the competitiveness of the interconnection marketplace and assiduously rebuffed calls for its regulation until, in a round of last-minute rent-seeking, Cogent, Level 3, and Netflix succeeded in shoehorning that issue into this proceeding about net neutrality.

Interconnection among IP networks has functioned efficiently for more than two decades without intervention by the Commission or other regulatory authorities.⁵⁸ Even the *Title II Order* made no contrary findings. Instead, after asserting jurisdiction in the abstract, it concluded “that the best approach is to watch, learn, and act as required, but not intervene now, especially not with prescriptive rules.” *Title II Order* ¶ 31. Cogent and Level 3 have nonetheless filed comments repeating old debunked arguments: (1) that before the *Title II Order*, ISPs like AT&T were “unilaterally” causing congestion for traffic that Cogent and Level 3 were delivering on behalf of edge providers like Netflix; (2) that the adoption of the *Title II Order* and the ensuing threat of lawsuits “convinced” these ISPs to enter into new contractual arrangements that “eliminated” the congestion; and (3) that if the Commission were now to deregulate interconnection, these ISPs would revert to their prior strategies of unilateral congestion when the current contracts expire.⁵⁹ These arguments were wrong when Cogent *et al.* made them before, and they are wrong now.

⁵⁸ AT&T Comments 46-49; *see generally* Stanley M. Besen & Mark A. Israel, *The Evolution of Internet Interconnection from Hierarchy to “Mesh”: Implications for Government Regulation*, 25 *Info. Econ. & Pol’y* 235 (2013) (“Besen & Israel”).

⁵⁹ Cogent Comments 10-18; Level 3 Comments 8-13; *see also* Incompas Comments at 28-32, 57-62.

First, the basic premise of these commenters' claims—that absent regulation ISPs can “unilaterally” and “profitably” maintain congested interconnection links to degrade the service of rival edge providers⁶⁰—remains patently false. Edge providers still can choose among many routes into and out of any broadband ISP's network. AT&T Comments 46-49. And they need not even deal with any ISP directly. Instead, they can obtain indirect interconnection by (for example) purchasing services from third-party CDNs or transit services from the ISP's peers at low and still-plummeting rates. *Id.* In fact, transit providers and their customers almost always rely on multiple redundant paths into any ISP's network, and edge providers dynamically shift between transit providers in real time to avoid congestion. An ISP thus could not execute a “degradation by congestion” strategy without limiting capacity across *all of its peering points* for extended periods.⁶¹ Any such strategy would be a nonstarter because it would radically degrade the ISP's Internet access service to its mass market and business customers.⁶²

⁶⁰ Cogent Comments 15-16 (congestion “appears to have been profitable” for ISPs and “became a market equilibrium”); *see also* Level 3 Comments 10-12.

⁶¹ *Global Crossing-Level 3 Order* ¶ 27 (finding foreclosure concerns unfounded because “if the combined entity were to engage in connection degradation or price increases,” its interconnection customers “would be able to transition easily to another provider”). Moreover, since CDNs typically provision whatever capacity they require, an ISP could not strategically congest CDN links.

⁶² Cogent is wrong to assert (at 14) that ISPs can successfully “deflect blame to others” for congestion, “such as the content providers.” To the contrary, leading edge providers such as Netflix and Google have their own consumer relationships and vigorously promote various “scorecards” that compare ISP performance in delivering their video services to subscribers. *See* Netflix, *ISP Speed Index*, <https://ispspeedindex.netflix.com>; Google, *Video Quality Report* <https://www.google.com/get/videoqualityreport/>. Indeed, Netflix during this period made a practice of displaying provocative messages to its customers blaming their ISPs each time they encountered interruptions in their video streams. *See* Steve Kovach, *Netflix Will Take Down the Messages Blaming Verizon's Internet for Slow Streams*, Business Insider (Jun. 9, 2014), <http://www.businessinsider.com/netflix-take-down-verizon-message-2014-6>.

It thus turns reality on its head to argue, as Cogent and Level 3 do, that AT&T and other ISPs intentionally generated congestion in order to harm Netflix. It is now widely understood that the congestion at the heart of these complaints was an entirely avoidable result of routing decisions by Netflix and its transit providers, Cogent and Level 3.⁶³ Again, it is the parties that send traffic to an ISP's end users that make the decisions about how to route that traffic, not the ISP itself. The receiving network has no control over how the traffic comes into its facilities, and it cannot prevent content networks and transit providers from teaming up to cause serious congestion problems by pushing a large amount of traffic over a small set of interconnection links.⁶⁴

That is precisely what Cogent and Level 3 did in the years leading up to the *Title II Order*. During that period, these companies tried to leverage their status as Tier 1 peers into an artificial competitive advantage in the content delivery business.⁶⁵ For a variety of reasons,

⁶³ See, e.g., Dan Rayburn, *Cogent Now Admits They Slowed Down Netflix's Traffic, Creating A Fast Lane & Slow Lane*, STREAMINGMEDIABLOG.COM (Nov. 5, 2014) ("*Cogent Now Admits*"), <http://blog.streamingmedia.com/2014/11/cogent-now-admits-slowed-netflixs-traffic-creating-fast-laneslow-lane.html>; Nick Feamster, *Why Your Netflix Traffic is Slow, and Why the Open Internet Order Won't (Necessarily) Make It Faster*, Freedom to Tinker (Mar. 25, 2015), <https://freedom-to-tinker.com/2015/03/25/why-your-netflix-traffic-is-slow-and-why-the-open-internet-order-wont-necessarily-make-it-faster/> ("Much of the popular media has led consumers to believe that the reason that certain Internet traffic—specifically, Netflix video streams—were experiencing poor performance because Internet service providers are explicitly slowing down Internet traffic. ... These caricatures are false, and they demonstrate a fundamental misunderstanding of how Internet connectivity works, what led to the congestion in the first place, and the economics of how the problems were ultimately resolved."); see also David Clark, Steve Bauer, William Lehr, kc claffy, Amogh Dhamdhere, Bradley Huffaker & Matthew Luckie, *Measurement and Analysis of Internet Interconnection and Congestion*, at 9-10 (Sept. 10, 2014), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2417573.

⁶⁴ Declaration of Scott Mair, ¶¶ 20-21 (attached to Joint Opposition of AT&T Inc. and DirecTV to Petitions to Deny, *Applications of AT&T Inc. and DirecTV for Consent to Assign or Transfer Control of Licenses and Authorizations*, MB Docket No. 14-90 (filed Oct 16, 2014)) ("Mair Decl.")

⁶⁵ A Tier 1 network is one of the handful of large IP networks that can connect its customers (directly or indirectly) to the customers of all other IP networks without any need to purchase transit services from intermediaries. See AT&T Comments 47 (defining peering and transit).

including the heavily asymmetric nature of their traffic, prominent CDNs such as Akamai and Limelight have never been Tier 1 peers and therefore purchase transit services as inputs from other IP networks. Cogent and Level 3 apparently saw an opportunity to compete with these CDNs for the business of large content providers (such as Netflix) by misusing their settlement-free peering arrangements with major ISPs. Cogent and Level 3 simply pushed terabytes of unidirectional CDN traffic to ISP peering points on a settlement-free basis while making no provision for the ensuing congestion. For example, they demanded that AT&T pay to upgrade the capacity of those few links where they sent their traffic, even though there was more than enough capacity on other ingress links to AT&T's network if Cogent and Level 3 had routed traffic more efficiently—which they declined to do apparently because that would have required them to purchase transit from third parties. *See* Mair Decl. ¶¶ 22-24, 40. Cogent and others were in effect trying to force AT&T and other ISPs to subsidize their CDN-type services to give them a competitive advantage against other CDNs and backbone providers. *See id.* ¶¶ 32-33. And while they accused ISPs of slowing Netflix traffic for anticompetitive reasons (an accusation that some Title II proponents continue to recycle), *they* were the ones that throttled Netflix traffic to insulate their other traffic from the consequences of their misuse of these peering relationships.⁶⁶

⁶⁶ *See Cogent Now Admits, supra.* During this period, Netflix itself was trying to take advantage of regulatory uncertainty to obtain the equivalent of settlement-free peering, even though Netflix is not even an ISP, its traffic is unidirectional, and it thus cannot provide equivalent value to interconnecting networks. Netflix and AT&T have since entered into a mutually beneficial interconnection agreement, and Netflix has noted the benefits of such agreements for its margins. Thomson Reuters StreetEvents Edited Transcript, *NFLX – Q2 2014 Netflix Inc Earnings Call*, at 6 (July 21, 2014) (“[O]n a short-term basis, I think there’s great assurances in the sense that we’ve been able to sign these immediate interconnect deals, and *still able to achieve our margin targets, and our guidance implies those costs are embedded.*”) (emphasis added),

Moreover, Cogent and Level 3 implemented this strategy in violation of their then-existing peering agreements, which required a reasonable balance of exchanged traffic as a condition of settlement-free interconnection.⁶⁷ Those agreements reflected the longstanding industry consensus that settlement-free peering is most likely to make economic sense when the two parties deliver traffic that remains in a rough balance; in those circumstances, a barter transaction is often more efficient than an exchange of money because the benefit to each party is more or less equivalent.

Level 3 itself recognized this point in 2005 when it explained why it had de-peered Cogent after Cogent had allowed its traffic with Level 3 to fall out of balance:

Settlement-free peering[] is a contractual relationship under which two companies exchange Internet traffic without charging each other. In order for free peering to be fair to both parties, the cost and benefit that parties contribute and receive should be roughly the same. ... [T]he agreement that we had with Cogent was not equitable to Level 3. There are a number of factors that determine whether a peering relationship is mutually beneficial. For example, Cogent was sending far more traffic to the Level 3 network than Level 3 was sending to Cogent's network. It is important to keep in mind that traffic received by Level 3 in a peering relationship must be moved across Level 3's network at considerable expense. Simply put, this means that, *without paying, Cogent was using far more of Level 3's network, far more of the time, than the reverse*. Following our review, we decided that it was *unfair for us to be subsidizing Cogent's business*.⁶⁸

⁶⁷ AT&T's peering policy was typical of the peering policies used by the rest of the industry: it permitted settlement-free peering so long as the ratio of incoming to outgoing traffic did not exceed 2:1 (and AT&T's other peering requirements were met). Mair Decl. ¶ 13. If the traffic exceeded the 2:1 ratio, AT&T would work with the peer to establish more efficient routing arrangements or, in appropriate cases, a shift to paid peering (or at least payment for upgrades). These basic requirements have been standard throughout the industry for many years, and they are based solely on the balance and volume of traffic, not the *type* of traffic that may be involved. *Id.* ¶ 41.

⁶⁸ Level 3 Comm'ns, *Level 3 Issues Statement Concerning Internet Peering and Cogent Communications* (Oct. 7, 2005), <http://www.prnewswire.com/news-releases/level-3-issues-statement-concerning-internet-peering-and-cogent-communications-55014572.html> (emphasis added; paragraph break omitted).

Level 3 and Cogent promptly resolved this impasse after “Cogent agreed to pay Level 3 for peering if, among other criteria, its traffic ratios exceeded a prescribed threshold.” Besen & Israel at 239.

Just as Cogent settled its dispute with Level 3 in 2005 by agreeing to payments under some circumstances, Cogent and Level 3 (and other networks originating asymmetric traffic) have more recently entered into similarly equitable long-term agreements with AT&T and other ISPs. All parties concur that those agreements have completely resolved the congestion problems that Cogent, Level 3, and others caused and then complained about several years ago.⁶⁹

Contrary to the claims of Cogent and Level 3,⁷⁰ these new agreements were the product of the same marketplace dynamics that have governed interconnection from its inception, not of the Commission’s assertion of asymmetric jurisdiction in the *Title II Order*. The agreements protect the content-originating network (and its edge provider customers) against congestion by establishing reasonable terms under which the content-receiving ISP will augment capacity when needed by the sending network. At the same time, content-originating networks like Cogent and Level 3 have abandoned their untenable position that each ISP should be obligated to pay for augments *ad infinitum*, no matter how extreme the increase in unidirectional traffic and

⁶⁹ See Cogent Comments at 18 (“once an agreement was reached and implemented, congestion and the ensuing consumer harm essentially disappeared”); see also *id.* at 3 n.4 (“quality issues ended” under the new agreements); Level 3 Comments at 12 (“[a]s a result of these new agreements, interconnection capacity between Level 3 and the consumer ISP networks has been increased substantially”).

⁷⁰ See Cogent Comments at 8 (“Shortly after it became apparent that the Commission would reclassify the provision of BIAS and provide a forum for interconnection disputes to be resolved, previously recalcitrant ISPs agreed to augment capacity at the points where they exchange traffic with transit/content providers”); *id.* at 16-17; Level 3 Comments at 11 (“[o]nce the Commission made clear that it had jurisdiction to entertain a complaint filed against a consumer ISP relating to its interconnection practices, the consumer ISPs’ position became untenable”). In reality, the *Title II Order* noted the existence of these disputes but took no position on them. *Title II Order* ¶ 31.

associated cost of upgrades. The same market dynamics that produced these equitable outcomes, both before and after 2015, will continue to produce them once broadband is reclassified as a Title I information service.

These real-world facts also refute Incompas' apparent premise that *any* payment of compensation in these circumstances—*i.e.*, any deviation from “settlement-free traffic exchanges”—somehow shows that the party receiving the payment must have “market power” in need of regulatory intervention. Incompas Comments 32. Indeed, that premise is contradicted by Incompas's own members. As noted, Level 3 recognized in 2005 that it is “unfair” and economically inefficient for one peer to expect another to “subsidiz[e]” its business by dropping off huge volumes of unbalanced traffic on the other peer's network without compensating the other peer for the ensuing costs. Accordingly, both Level 3 and Cogent have entered into negotiated agreements with each other and with other ISPs that include provisions for compensation for unbalanced traffic. Notably, Level 3 and Cogent also refuse to peer with the vast majority of ISPs, and of course they insist on compensation to carry those ISPs' traffic.

In all events, Incompas' argument that compensation for peering traffic is an indicator of market power is merely a variation on Incompas's overarching premise that all ISPs are “gatekeepers” with “terminating access” monopolies and that any payment must therefore arise from such ISP-specific “market power.” *See* Incompas Comments 28-32. Again, however, this reliance on “gatekeeper” rhetoric is economically incoherent. *See* § I.B.3, *supra*. As with any other commercial arrangement, the existence of “payments” for asymmetric traffic is just part of an efficient and equitable exchange of value. Incompas has made no showing that such payments are even competitively significant, let alone supracompetitive.

Finally, the regulatory mechanism created by the *Title II Order* was not only unnecessary, but affirmatively counterproductive. Any threat of regulatory intervention in private negotiations inevitably distorts them: some parties will always hold out in the hope that regulators will grant them a better deal than the one they could negotiate through free-market dynamics, even though, in competitive markets, the negotiated outcome is almost always the more efficient one. But the problem is even worse here for a reason discussed in our opening comments (at 48-49). Because the *Title II Order* predicated its interconnection authority on Title II classification of *retail* broadband services (*see id.* ¶ 339), the *Order* converts only one side in any interconnection negotiation—the consumer-facing ISP—into a common carrier subject to complaint proceedings. In contrast, the ISP’s counterparty—*e.g.*, Cogent or Level 3—remains an unregulated private carrier immune from such complaints, creating new opportunities for regulatory gamesmanship. The Commission should eliminate this market-distorting imbalance by restoring interconnection agreements to the unregulated status they occupied for more than two decades before the *Title II Order*.

C. Title II Regulation Substantially Harms Broadband Investment and Innovation.

We now turn to the cost side of the cost-benefit ledger. As previously discussed, a baseline no-blocking/no-throttling regime and transparency rules are essentially cost-free because, for the most part, they codify established industry practice. Imposing Title II regulation on top of this baseline not only serves no benefit, but imposes immense extra costs on the broadband ecosystem in the form of depressed incentives for investment and innovation.

1. The Open-Ended “Reasonableness” Requirements Inherent in Title II Regulation Inevitably Depress Investment and Innovation

It is an economic truism that comprehensive economic regulation imposes significant costs, which may or may not be justified by countervailing regulatory benefits. *See* AT&T Econ. Decl. ¶¶ 83-93 (canvassing academic literature). Such costs are particularly immense where, as here, the regulated industry is technologically and commercially dynamic, the regulatory regime imposes unpredictable conduct restrictions, and it generates widespread concerns about “regulatory creep.” *See id.* ¶¶ 20-23, 91-92. In such contexts, firms will be more reluctant to invest in innovative business models today if they fear that regulators will strand those investments tomorrow by outlawing the business models in question. That concern is at its zenith in highly politicized contexts like this one, where business models may be outlawed on the basis of sound bites rather than serious analysis.

Title II regulation presents all of those concerns in spades. For example, sections 201 and 202 contain no standards at all: they simply warn common carriers to act “just[ly] and reasonabl[y]” and refrain from “unjust or unreasonable discrimination.” 47 U.S.C. §§ 201(b), 202. Anyone can—and pro-regulation enthusiasts routinely do—allege on the thinnest of pretexts that broadband ISPs have acted “unreasonably” or have “unjustly discriminated” whenever they innovate in ways that could conceivably have any differential effects on edge providers. And the *Title II Order* did nothing to alleviate that concern by coupling sections 201 and 202 with the equally indeterminate “no-unreasonable interference/disadvantage standard,” which features a nonexhaustive list of nebulous “factors” that must all be applied and weighed against one another in unspecified ways and on an ad hoc basis. *See* AT&T Comments 50-51 (discussing 47 C.F.R. § 8.11).

As discussed in our opening comments, the previous Commission’s assault on zero-rating illustrates the analytically untethered nature of “reasonableness” disputes in today’s world, where Eighth Floor policymakers have succumbed to sound bites from regulatory agitators rather than engage in reasoned economic analysis. As discussed, AT&T stressed during the Commission’s lengthy “investigation” last year that its sponsored data program was economically equivalent to a bundled rebate arrangement, under which DIRECTV would give its customers monthly rebates to cover any incremental retail fees charged by AT&T Mobility attributable to their consumption of DIRECTV’s online services. *See* § I.B.1, *supra*. Because the latter arrangement would be uncontroversial and obviously pro-consumer, the sponsored data arrangement itself should be treated the same. Remarkably, however, the Wheeler Commission’s response to AT&T’s submissions ignored that central point altogether and resorted instead to sloppy “gatekeeper” and “discrimination” rhetoric when suggesting that it would shut the program down anyway. Had Chairman Wheeler remained in office for one or two more months, there is little question that he would have tried to suppress this popular program, at the expense of AT&T and its customers.⁷¹ Doing so would have had a powerful chilling effect on subsequent innovations by broadband providers.

Nor is this the only example of regulatory overreach during the short period in which the Wheeler Commission exercised control of the Title II regime. As Comcast explains (at 71-72), the Commission also delayed the launch of Stream TV—a managed IP video service—by

⁷¹ In that counterfactual world, market developments might have moderated the most direct effects of the Commission’s irrational crackdown on sponsored data arrangements. As discussed in our opening comments (at 18, 25), competition has now induced AT&T and all other major mobile providers to offer highly affordable unlimited plans, in which sponsored data arrangements are competitively immaterial to edge providers. Nonetheless, the Commission’s regulatory overreach still would have confirmed the market’s worst fears about regulatory creep and thus would have chilled future innovations.

pursuing a misconceived “investigation” into the legality of that service, even though it is not even delivered over the public Internet. As with its traditional cable TV services, Comcast offers Stream TV only to its home subscribers over a closed network. The only source of controversy has been that Comcast delivers this service by means of IP packets rather than over the QAM (“quadrature amplitude modulation”) technology associated with traditional cable services.⁷² Such unified IP networks, capable of supporting logically separated streams for voice, video, and Internet services, are more efficient than technologically heterogeneous platforms. Indeed, that is the premise behind AT&T’s “U-verse” architecture, which streams voice, video, and Internet packets over a unified IP infrastructure. *See* AT&T Comments 38-39.

Although Comcast offered usage-based billing for *Internet* usage in some areas, it obviously imposed no data allowances for this managed IP video service, just as it imposes no data allowances for conventional cable TV services provided over the legacy QAM platform. But the Commission spent a year taking seriously the politically inflammatory but substantively empty argument that, because of this technological upgrade, Stream TV resembled over-the-top video services delivered over the public Internet and that Comcast should thus subject it to usage allowances to avoid “discriminating” against those other services.⁷³ This lengthy investigation ended up delaying a pro-consumer innovation for more than a year. In the words of a senior Comcast executive:

⁷² *See* Opposition of Comcast Corp., *Applications of Comcast Corporation, General Electric Company and NBC Universal, Inc. for Consent to Assign Licenses and Transfer Control of Licenses*, MB Docket No. 10-56, at 9-10 (Mar. 14, 2016).

⁷³ *See* Petition of Public Knowledge, *Applications of Comcast Corporation, General Electric Company and NBC Universal, Inc. for Consent to Assign Licenses and Transfer Control of Licenses*, MB Docket No. 10-56 (Mar. 2, 2016). Public Knowledge’s petition alleged violations of the *Title II Order*’s “no-unreasonable interference/disadvantage standard” as well as the Comcast-NBCU Merger conditions.

Comcast's original Stream TV ... wasn't even an Internet service, it was an IP delivered service in the home, and we end up with a year-long FCC investigation, which essentially delays the launch of the service [for 18 months] that potentially could be incredibly popular with customers. . . . So there is a crystalized example of . . . where the Commission said [in the *Title II Order*] 'we are not going to get into this' [but] we end up with a 12-month investigation by the FCC into something that isn't even covered by the open Internet rules[.]

Comcast Comments 72 (quoting Senior Executive VP David Cohen).

In sum, the Commission seemed eager during the Wheeler Title II era (March 2015 to January 2017) to suppress any popular video innovation by any major ISP, no matter how valuable to consumers, on the theory that every ISP has a duty to make life competitively easier on its over-the-top rivals. This is yet another example of the Commission's track record of conflating the interests of *competitors* with the interests of *consumers*, thereby casting a pall of uncertainty over broadband innovation. Against this backdrop, it is absurd to argue, as Public Knowledge does, that Title II reclassification has "imposed modest costs on ISPs, chiefly in the form of compliance and reporting requirements." Public Knowledge Comments 64. Title II has been in place for a mere two years. But even in that short timeframe, it has taken its toll.

It is also untenable to argue, as Public Knowledge and other Title II advocates do, that the Commission somehow solved the uncertainty problem by setting up an "advisory opinion" mechanism under which ISP applicants can ask the Enforcement Bureau for permission before launching any new innovation. As we have explained, it is hard to imagine a regulatory process more at war with the ethic of permissionless innovation that has characterized the Internet ecosystem since its inception. *See* AT&T Comments 51-52. And even apart from that concern, the "advisory opinion" mechanism set up by the *Title II Order* is so riddled with limitations and caveats that it could never provide any business certainty in any context. *See id.*

Finally, there is no merit to suggestions by pro-Title II advocates that ISPs are somehow estopped from complaining about the incremental harm of Title II regulation because many of

them, including AT&T, accepted the *2010 Open Internet Order* as a reasonable compromise even though that *Order* contained a common-carrier-type “nondiscrimination” rule. *See, e.g.*, Internet Association Comments 30. As an initial matter, agreeing to a rule as part of a compromise package does not constitute an endorsement of that rule. But in all events, as discussed, that rule was sufficiently circumscribed that it imposed far less regulatory uncertainty than the omnibus “unreasonable interference/disadvantage” rule imposed by the *Title II Order*. *See* § I.B.1, *supra*. Again, the “nondiscrimination” rules in the *2010 Open Internet Order* were confined to fixed-line providers and did not apply at all to mobile providers. And even as to fixed-line providers, the nondiscrimination rule applied only to the *transmission* component of broadband service, and not to other features, terms, conditions, or practices. *See id.* For each of those reasons, the 2010 rules did not do what the 2015 rules did: subject ISPs to long periods of debilitating uncertainty whenever they contemplated launching innovative business plans.

2. The Investment “Studies” Proffered by Title II Advocates Are Meritless.

As discussed in our opening comments, a growing body of empirical research confirms what economic theory holds must be true: overregulation has indeed depressed broadband investment since the *Title II Order* was adopted. *See* AT&T Comments 54; AT&T Econ. Decl. ¶¶ 104-09. Of course, we will never know for certain just how much Title II classification would have deterred broadband investment and innovation if the same Commission that adopted it in March 2015 had been allowed to continue pushing the regulatory envelope. Title II regulation was in effect and subject to the Wheeler Commission’s control for less than two years before the new Commission proposed to repeal it, and investment plans tend to operate on longer time horizons. Capital investments in 2015 and even 2016 may well have been set in motion by 2014,

when Title II regulation seemed unlikely. For that reason, investment figures for 2015 and 2016 likely *understate* the investment-depressing effect of Title II regulation.

Two pro-Title II commenters—the Internet Association and Free Press—have submitted self-styled “studies” purporting to show that the *Title II Order* had either no effect or a positive effect on broadband investment levels. Both studies lack credibility for the reasons discussed below, but a broader point warrants emphasis at the outset. A reduction in raw investment numbers is only one of several harms associated with Title II reclassification. As discussed in the previous subsection, reclassification also threatened to chill the development of new network techniques and business models that would have benefited consumers. The *Order*’s effects on absolute investment figures do not account for such consumer harms.

The Internet Association (Hooton) Study. The Internet Association has submitted an analysis by its chief economist, Christopher Hooton, that purports to address the effect of the *Title II Order* on investment.⁷⁴ But that analysis ends up showing nothing at all.

Dr. Hooton acknowledges that to provide statistically valid evidence about the impact of Title II on investment, one must compare investments made subject to Title II regulation to an appropriate *benchmark*—*i.e.*, investments made without such regulatory overhang. Hooton Study at 9. Otherwise, the study will measure other potential drivers of infrastructure investment and will not isolate the effects of regulation. To that end, Dr. Hooton purports to compare U.S. telecom infrastructure investment after the *Title II Order* with telecom investment in certain other OECD countries during the same period. *Id.* He claims that this set of OECD data can

⁷⁴ Christopher Hooton, *An Empirical Investigation of the Impacts of Net Neutrality* (2017) (“Hooton Study”) (attached to Internet Association Comments).

supply an appropriate “counterfactual” on the theory that it allows him to compare U.S. telecom investment subject to Title II regulation with telecom investment in OECD countries not subject to Title II regulation. *Id.* at 3, 9.⁷⁵

Even if one assumes that Dr. Hooton has identified a reasonable “benchmark” in the form of OECD countries that (according to him) lack a Title II-type regime, Dr. Hooton’s approach is fundamentally flawed because he lacks the data to execute it. Dr. Hooton’s analysis of post-*Title II Order* investment relies on *forecasts* of investment generated by Dr. Hooton himself, not actual investment data. *Id.* at 10. In his regression studies, Dr. Hooton seeks to measure and compare telecom infrastructure investment per capita in the U.S. and OECD from 1996 to 2020. *Id.* at 13. But he has no actual OECD investment data after 2013 and has thus made up his own projections of what investment would be like for 2014-2020. *Id.* at 10 & n.16, Table 1; *id.* at 11, Fig. 1. As he acknowledges with considerable understatement, this is a “key weakness” in his approach. *Id.* at 13 n.19; *see also id.* n.16 (the “use of forecasted data for impact evaluations is a flawed approach”).⁷⁶

⁷⁵ Dr. Hooton also simplistically compares cable infrastructure investment and broadband infrastructure investment without undertaking the types of controls that he himself recognizes are necessary to generate statistically meaningful results. *See id.* at 9-10 & Tables B3, B4. He further purports to analyze changes in *total infrastructure investment* (as opposed to his primary analysis’s focus on telecommunications infrastructure investment) between the United States and other OECD countries, *Id.* at 10, but that is quite clearly an irrelevant measurement. As Dr. Hooton himself notes, “the results are not Telecom specific,” and he mentions them only “for reference rather than claiming positive causal impacts.” *Id.*, Appx. A, Note. For these and other reasons, his study is both conceptually misguided and riddled with basic economic and statistical errors. *See generally* George S. Ford, *A Further Review of the Internet Association’s Empirical Study on Network Neutrality and Investment* (Aug. 14, 2017), <http://www.phoenix-center.org/perspectives/Perspective17-10Final.pdf>.

⁷⁶ Dr. Hooton states that his post-2015 analyses were presented only as a matter of “due diligence.” *Id.* at 13-14 n.19. Statistically meaningless results provide no support for retaining Title II, regardless of how many are provided.

Worse, Dr. Hooton’s reliance on his own forecasts infects his analysis with logical circularity. The variable that he purports to study is the effect of the *Title II Order* on investment. Yet in his primary results, he effectively assumes that variable away by basing his forecasts for both U.S. and non-U.S. OECD data on pre-Title II investment data; indeed, he projects that 2014-2020 investment will display the same growth pattern as 2012-2013 investment. Hooton Study at 11, Fig. 1. Thus, at bottom, this “analysis” proves only that the *Title II Order* would have no effect on investment if it has no effect on investment—a tautology.

Also meaningless is Dr. Hooton’s attempt to analyze the investment impact of the *2010 Open Internet Order*. *Id.* at 16. To begin with, that inquiry addresses the wrong regulatory issue. The relevant question here concerns the effects of *common carrier Title II regulation*, not the effects of the much more modest regulatory approach adopted in 2010. Again, the *2010 Open Internet Order* was limited in scope, particularly as to mobile providers, and it bears more resemblance to the baseline regime that AT&T would support than to the common carrier regulation imposed by the *Title II Order*. See Section I.B.1, *supra*; see also AT&T Econ. Decl. ¶ 104. As a result, any study of post-2010 investment effects has no bearing on the relevant issue: the *incremental* investment impact of superimposing Title II regulation on top of the 2010 rules.

In any event, even apart from that logical defect, Dr. Hooton’s analysis actually undermines the conclusions he and the Internet Association seek to draw. Dr. Hooton’s analyses find that investment *declined* (as compared to the but-for world) after the *2010 Order*. Hooton Study 36, Table B1. Hooton blandly states that “the regression coefficients of interest were positive in all but one case,” *id.* at 14, but that “one case” is actually Hooton’s *primary* set of results (*i.e.*, those given in Table B1, *id.* at 36, which are the only results that use actual data for

treatment years). In any event, no weight can be given to any of Dr. Hooton’s findings regarding the impact of the *2010 Order* because that analysis suffers from much the same problem as his analysis of the impact of the *Title II Order*. There are only four years of actual data available to study for possible investment impact for the time period he has specified (2010-2013), so his analyses include a further seven years of “forecasted” observations (2014-2020). In other words, the analyses try to detect changes in investment for the years 2010 to 2020, but Dr. Hooton made up the numbers for seven of those eleven years on the basis of pure speculation. *Id.* n.13.⁷⁷

The Free Press “Study.” For its part, Free Press does not even try to conduct a proper analysis. It merely touts aggregate levels of investment in short windows after the adoption of the *2010 Order* and the *Title II Order*. Free Press Comments 86-170. This approach is simpleminded and analytically indefensible. AT&T Econ. Decl. ¶ 107. First, such comparisons “fail to control for obvious factors such as the rate of inflation” and often hinge on how certain accounting adjustments are made. *Id.* ¶ 108. Similarly, the question here is not whether broadband investment overall was greater after the *Title II Order* was enacted than before. The question instead is whether broadband investment is greater or less than it would have been had the *Title II Order* never been adopted. Indeed, Free Press itself acknowledges that ups and downs in investment can be caused by factors other than regulation, underscoring the need to determine “but for” levels of investment. Free Press Comments 143 & n.298. But Free Press never seeks to determine a relevant benchmark that might enable it to account for such confounding variables. *See* AT&T Econ. Decl. ¶ 104 (noting that “even an increase in

⁷⁷ For a more detailed critique of Dr. Hooton’s analysis, *see* George S. Ford, *A Review of the Internet Association’s Empirical Study on Network Neutrality and Investment*, Phoenix Center Perspectives, (July 24, 2017), <http://www.phoenix-center.org/perspectives/Perspective17-09Final.pdf>.

investment could reflect reduction in the investment that would have occurred without regulation”).⁷⁸

Free Press’s analysis is also shot through with other empirical and methodological errors. For example, Free Press’s investment study (at 130, Fig. 24) fails to deduct capital expenditures that AT&T made in Mexico and treats Sprint’s change in accounting practices as actual investment.⁷⁹ Free Press also masks a significant downturn in investment in 2016 by treating 2015 investments as “post” Title II and aggregating 2015 and 2106.⁸⁰ This is improper because the *Title II Order* was not adopted until March 2015, and, as noted, decisions to make capital investments in 2015 would typically have been made well before then. Finally, Free Press does not even use the most basic controls, such as adjusting for inflation.⁸¹ Correcting just these basic errors would show a substantial decline in aggregate investment from 2015 to 2016.⁸²

In short, neither Dr. Hooton nor Free Press credibly analyzes the investment impact of the *Title II Order*. Particularly in light of better-controlled studies suggesting that the *Title II Order*

⁷⁸ Free Press disingenuously suggests that AT&T CEO Randall Stephenson “assured investors” that the Title II rules did not “impact[] AT&T’s business plans.” Free Press Comments 151-52 & n.308. In fact, as the cited transcript excerpt shows (*see id.*), Mr. Stephenson stated only that AT&T had developed its business plans in conformity with the Title II rules. In any event, the Commission subsequently drew even that proposition into doubt when, towards the close of the Wheeler administration, it revealed its irrational plan to attack AT&T’s sponsored data arrangement with DIRECTV. *See* §§ I.B.1, I.C.1, *supra*.

⁷⁹ *See* Hal Singer, *Tales from the Econ Cloud Cuckoo Land* (posted June 12, 2017), <https://haljsinger.wordpress.com/2017/06/12/tales-from-econ-cloud-cuckoo-land/>. Free Press also includes in its investment statistics AT&T’s \$67 billion purchase of DIRECTV in July 2015. In response to criticism on this point, Free Press absurdly argues that this purchase was properly included in the analysis because AT&T achieved some broadband synergies from the deal. Free Press Comments 147. Those synergies, while substantial, were of course dwarfed by the enormous purchase price of DIRECTV as a going concern.

⁸⁰ *See* George S. Ford, *Reclassification and Investment: An Analysis of Free Press’ “It’s Working” Report*, at 2 (May 22, 2017), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2982440.

⁸¹ *Id.*

⁸² *Id.*

has tended to slow investment, the Commission should simply adopt the indisputable economic truism that overregulation of dynamic industries depresses capital investment (as well as innovation). *See* AT&T Econ. Decl. ¶ 109. Again, that investment-detering effect is particularly severe if—as under any Title II regime—the applicable regulatory constraints are nebulous in articulation, unpredictable in application, and susceptible to regulatory creep in a volatile political environment.

II. BROADBAND INTERNET ACCESS CANNOT LAWFULLY BE SUBJECT TO COMMON CARRIER REGULATION.

A. The Commission Should Find That the Statute Not Only Permits But Compels an Information Service Classification and, as Belt-and-Suspenders, Should Conditionally Forbear From All Title II Regulation.

For the reasons discussed, Title II regulation flunks any reasonable cost-benefit analysis and should be rescinded. Several commenters appear to suggest that the Commission lacks even the discretion to reinstate the “information service” classification for broadband that prevailed for nearly two decades before 2015, contending that the statute somehow *compels* a “telecommunications service” classification.⁸³ That argument is frivolous. It squarely contradicts the Supreme Court’s decision in *NCTA v. Brand X Internet Servs.*, 545 U.S. 967 (2005), which upheld the Commission’s “information service” classification. It also collides with the position taken by the judges in the *USTelecom* panel majority, who upheld the *Title II Order* on the ground that “the Act left the [statutory classification] matter to the agency’s discretion. In other words, the FCC could elect to treat broadband ISPs as common carriers ...

⁸³ *See, e.g.*, CDT Comments 5-12; EFF Comments 17-21; Incompas Comments 41-57; Public Knowledge Comments 15-26.

but the agency did not have to do so.” *USTelecom Reh’g Denial*, 855 F.3d at 384 (Srinivasan, J., joined by Tatel, J., concurring in denial of reh’g en banc) (emphasis added); *see also id.* at 386.

In addition, although the Commission obviously should explain why it would resolve any “ambiguity” to classify broadband as an information service, it should also conclude that, for the reasons discussed below, the statute *compels* that classification because there is no such ambiguity. *See* AT&T Comments 59-101. Although the panel majority in *USTelecom* found otherwise, its decision binds neither the Supreme Court nor other courts of appeals on review of FCC orders in this or subsequent proceedings. *See id.* at 59-60. And the panel majority was in fact wrong in finding that the statute is sufficiently ambiguous to permit classification of broadband Internet access as a “telecommunications service.” At bottom, that finding rests entirely on a fundamental misreading of *Brand X* urged on the panel by the Commission itself.⁸⁴

In *Brand X*, the Supreme Court and all litigants assumed that the Internet access functionality offered by broadband ISPs was an “information service”; the only question was whether the ISPs could be said to “offer” (47 U.S.C. § 153(53)) a *separate* telecommunications service in the form of last-mile transmission between the broadband cable provider and customers’ homes. *See* 545 U.S. at 989. ISPs *without* last-mile facilities (such as Earthlink) wanted the Commission to answer that question in the affirmative. They did not themselves seek to be classified as “telecommunications service” providers. Instead, they simply wanted a regulatory entitlement to purchase high-speed transmission services from cable ISPs as an input

⁸⁴ *See* AT&T Comments 82-85 (discussing *USTelecom*, 825 F.3d at 701-02; Br. for Resp’ts. at 51-58, *USTelecom*, No. 15-1063 (Sept. 14, 2015)).

to their own competing information services—*i.e.*, Internet access. *See Cable Broadband Order* ¶¶ 40, 42.

The Commission refused the ISPs’ request, and the Supreme Court affirmed. It assumed with everyone else that Internet access itself is an information service.⁸⁵ It then turned to the central question: whether broadband ISPs should be understood to offer only that service or, in addition, a separate and additional “telecommunications service”: broadband transmission. The Court held that the term “offe[r]” as used in the definition of telecommunications service” is “ambiguous about whether it describes only the offered finished product, or the product’s discrete components as well.” *Brand X*, 545 U.S. at 989-90. Thus, as long as “the transmission component” is “sufficiently integrated with the finished service to make it reasonable to describe the two as a single, integrated offering,” the statute does not require the Commission to treat the transmission component as a separate telecommunications service offering. *Id.* at 990.

Nothing in the opinion even suggests, much less holds, that the statute authorizes the Commission to classify Internet access *itself* as a telecommunications service.⁸⁶ Public Knowledge unwittingly makes this very point even as it tries to defend the *Title II Order*. It

⁸⁵ *See Brand X*, 545 U.S. at 987 (service that “enables users . . . to browse the World Wide Web” is information service); *see id.* at 1008-09 (Scalia, J., dissenting) (same).

⁸⁶ Incompas misrepresents regulatory history when it states (at 43) that when “higher-speed Internet access launched in the form of DSL services, Title II . . . applied to this first important, faster connection to the Internet.” In fact, high-speed *Internet access* (*e.g.*, Internet access bundled with DSL) was always treated as a Title I “information service” before 2015. Title II applied only to the bare *transmission component* (DSL) unbundled from Internet access when telephone companies offered it separately to non-facilities-based ISPs (often pursuant to the *Computer II* unbundling rule). *See* AT&T Comments 65-66. Incompas is also simply confused when it criticizes the NPRM for “claim[ing] that there is no telecommunications component with which a broadband provider’s information service can be intertwined.” Incompas Comments 46. The NPRM claimed no such thing. Although broadband Internet access service plainly involves “telecommunications,” it involves no “telecommunications *service*” within the statutory definition because it contains no separate “offering of telecommunications for a fee directly to the public.” 47 U.S.C. § 153(53).

agrees with us that (1) “the *Brand X* Court did not find that terms like ‘telecommunications’ or ‘information service’ were ambiguous” and (2) “dial-up ISPs ... are uncontroversially information services.” Public Knowledge Comments 29, 37. Yet Internet access functionality *itself* has the same basic attributes whether it is offered by dial-up ISPs or broadband ISPs; the only difference is that broadband ISPs bundle Internet access with last-mile transmission. Thus, because dial-up ISP services are “uncontroversially information services,” *id.* at 37, the same must be true of broadband ISP services—our main point. The only remaining question is the one addressed in *Brand X*: whether, in addition to this information service, broadband ISPs can also be said to “offer” a separate “telecommunications service” (last-mile broadband transmission). Although *Brand X* suggested that the Commission has some discretion in answering *that* question, no commenter (to our knowledge) advocates this treatment of broadband Internet access as two separate services, presumably because that approach would not support the “strong” net neutrality rules they seek. *See* AT&T Comments 84 n.124.

Finally, the Commission should follow through on its proposal (NPRM ¶ 64) to engage in conditional forbearance from the application of any Title II obligations to broadband Internet access services, including sections 201, 202, and 208. Of course, such a step might be unnecessary for judicial review purposes if the Commission adequately justifies its classification decision. But conditional forbearance would provide an extra level of insurance against the contingency that a future, politically motivated Commission might try to reinstate a “common carrier” classification. *See* AT&T Comments 99-100. In the absence of conditional forbearance, reinstatement of that classification would have self-executing regulatory consequences, irrespective of sound policy considerations. Conditional forbearance based on empirical cost-benefit findings would erect an independent bulwark against such consequences. Free Press

suggests, without elaboration, that “Section 10 forbearance is predicated on the preservation of the nondiscriminatory outcomes secured by Sections 201 and 202.” Free Press Comments 12-13. If Free Press means to argue that the Commission lacks section 10 authority to forbear from sections 201 and 202, it is flatly wrong for the reasons discussed in our opening comments (at 100-01).

B. The Text, History, and Structure of the Communications Act Compel an Information Service Classification.

1. The Statutory Language Codifies the Pre-1996 Understanding that All “Gateway” Services Enabling Interaction with Third Party Data Are “Information Services.”

a. The NPRM rightly begins its legal analysis with the observation (§ 27) that broadband Internet access is an “information service” because, simply by definition, it necessarily offers the “capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available, information via telecommunications.” 47 U.S.C. § 153(24); *see* AT&T Comments 68-69. It is in fact inarguable that any broadband ISP offers these “capabilities”: interacting with third-party data is the defining characteristic of Internet access.

Some commenters contend that, despite this plain language, it is not enough for an ISP to offer the capability of interacting with the stored data of third parties; according to them, the ISP must also offer the capability of interacting with *its own* stored data. *See, e.g.*, Public Knowledge Comments 27; Free Press Comments 52. As discussed below, ISPs would satisfy that requirement even if the statute imposed it because ISPs do in fact offer their customers data processing and data storage functionalities—for example, in the form of DNS and caching. *See* § II.B.3-4, *infra*; *see also* AT&T Comments 73-82. But the statutory definition of “information service” does not impose that requirement in the first place. Congress could have included the qualifier “the provider’s own” before “information via telecommunications,” but it did not. And without that

limitation, the capability of interacting with third-party data is sufficient to trigger the “information service” classification.

Free Press describes the NPRM’s adoption of this plain-language analysis as “ludicrous,” “amateur,” “farcical,” “laughable,” and “too stupid to insult.”⁸⁷ But Free Press does not dispute that the plain language means exactly what the NPRM says it means. *See id.* Free Press must thus be arguing that the “information services” definition fits within the tiny category of statutory provisions whose literal meaning can be ignored because “the result of applying the plain language would be, in a genuine sense, absurd, *i.e.*, where it is quite impossible that Congress could have intended the result, ... and where the alleged absurdity is so clear as to be obvious to most anyone.”⁸⁸ It is exceedingly difficult to satisfy this “absurdity” exception to the plain-meaning rule, and Free Press does not come close. It suggests (at 52) that construing the “information service” definition according to its plain and broad language would “make ... telecommunications services disappear.” That is obviously incorrect. For example, ordinary telephone service remains a telecommunications service because its essential function is to complete person-to-person telephone calls, whereas the only function of broadband Internet access is to offer the capability of interacting with stored data on remote computers.⁸⁹

⁸⁷ Free Press Comments 52; *cf. Psychological projection*, WIKIPEDIA, https://en.wikipedia.org/wiki/Psychological_projection (last visited Aug. 10, 2017) (“Psychological projection is a theory in psychology in which humans defend themselves against their own ... qualities ... by denying their existence in themselves while attributing them to others.”).

⁸⁸ *Public Citizen v. U.S. Dep’t of Justice*, 491 U.S. 440, 470-71 (1989) (Kennedy, J., concurring) (citing *FBI v. Abramson*, 456 U.S. 615, 640 (1982); *United States v. Brown*, 333 U.S. 18, 27 (1948)).

⁸⁹ Public Knowledge also argues (at 27) that this construction “write[s] ... out of the statute” the phrase “via telecommunications.” That is incorrect: the phrase retains obvious significance by providing that information services must take the form of electronic communications as opposed to (for example) package-delivery services.

b. The two regulatory antecedents to the statutory definitions—the Bell consent decree (the “MFJ”) and the *Computer Inquiry* rules—both confirm that Congress intended for the “information service” category to be expansively construed in precisely the manner that Free Press deems “laughable.” No one seriously disputes that (1) the 1996 Act incorporated the “telecommunications service” and “information service” definitions nearly verbatim from the MFJ; (2) those definitions also “parallel the definitions of ‘basic service’ and ‘enhanced service’ developed in [the] *Computer II* proceeding,”⁹⁰ and (3) when a term “is obviously transplanted from another legal source, ... it brings the old soil with it.”⁹¹ That canon of statutory construction is dispositive here because both regulatory antecedents to the statutory category of “information service” encompassed simple gateway services that, like Internet access, “connect[ed] ... consumers and [third party] information service providers.” *United States v. Western Elec. Co.*, 673 F. Supp. 525, 592 (D.D.C. 1987); see AT&T Comments at 61-68.

The MFJ precedents are particularly probative on this point, which may explain why the *Title II Order* ignored them altogether. The “information service” definition in the MFJ—again, virtually identical to the later statutory definition—delineated a class of services that the Bell companies were prohibited from providing absent a waiver. See AT&T Comments 61-64. In one instructive case, the MFJ court deemed it necessary to grant a waiver from this “information services” line-of-business restriction to enable the Bell companies to “acquire and operate the infrastructure necessary for the transmission of information services generated by others”—

⁹⁰ Report to Congress, *Federal-State Joint Board on Universal Service*, 13 FCC Rcd. 11501, ¶ 21 (Apr. 10, 1998) (“*Stevens Report*”).

⁹¹ *Sekhar v. United States*, 133 S. Ct. 2730, 2724 (2013); see also *Comm’r of Internal Rev. v. Keystone Consol. Indus., Inc.*, 508 U. S. 152, 159 (1993) (when statute incorporates terms with a “settled judicial and administrative interpretation,” there is a presumption that Congress was aware of that interpretation, and it is “proper to accept the already settled meaning”).

specifically, transmission of *third-party* interactive data services for “teleshopping, electronic banking, order entry, and electronic mail.” *Western Elec.*, 673 F. Supp. at 587 (emphasis added). Some parties had argued that no waiver was necessary because “the decree even now permits the [Bell companies] to *transmit* information services” provided by others, on the theory that such gateway transmission services were not themselves information services under the applicable definition. *Id.* at 587 n.275 (emphasis added). But the court held that this “construction must be rejected” “in view of the breadth of the information services definition ... and the inclusion therein of such terms as ‘acquiring,’ ‘transforming,’ ‘processing,’ ‘utilizing,’ and ‘making available.’” *Id.*; *see also* AT&T Comments 63 n.105 (noting the similar views of the Justice Department).

Likewise, in its *Computer Inquiry* precedents, the Commission construed the “enhanced services” definition to encompass similar “gateway” services that connected end users to third-party databases. *See* AT&T Comments at 64-68 (discussing multiple FCC Orders). As the *Stevens Report* recognized in 1998, these gateway services provided the same “functions and services associated with Internet access.” *Stevens Report* ¶ 75. Because the statutory definition of “information service” parallels the regulatory category of “enhanced services,” *see id.* ¶ 21, Internet access is an “information service.”

The pro-Title II commenters ignore the MFJ altogether and respond to the *Stevens Report* with essentially two points, neither of them persuasive. First, Public Knowledge argues (at 37) that such “1990s-era material[] is plainly drafted with dial-up ISPs in mind, which are uncontroversially information services[.]” But as discussed, if Internet access is an “information service” when offered by dial-up ISPs, it is also an “information service” when offered by

broadband ISPs. *See* § II.A.1, *supra*. Public Knowledge’s argument thus concedes away the very position it seeks to defend.

Second, Incompas argues that Congress codified the preexisting service categories and left information services unregulated only because it expected the Commission to continue imposing the *Computer II* “unbundling” rules. *See* Incompas Comments 41-42; *see* notes 20, 86, *supra* (discussing unbundling rules). As an initial matter, the *Computer Inquiry* rules did not even relate to the issue presented here: the regulatory status of the *retail* broadband Internet access service offered by ISPs. Those rules required telco (but not cable or mobile) providers of information services to offer unbundled transmission to unaffiliated information service providers as wholesale inputs, but the rules did not thereby convert the telco’s *retail* Internet access service into a “telecommunications service.” *See* AT&T Comments 65-66; note 86, *supra*.

More fundamentally, the Title II proponents’ arguments about the *Computer Inquiry* rules confuse two distinct issues: Congress’s policy expectations in 1996, and the actual service categories that Congress enacted into law. It is true that most consumers relied on local telephone lines to access the Internet in 1996, that most local telephone companies were monopolists at the time, and that they thus faced various “unbundling” obligations, which the Commission properly rescinded a decade later after intermodal competition had eroded the monopoly-era justification for them. *See* AT&T Comments 64-66. But the post-1996 elimination of those substantive regulatory obligations has no bearing on the proper construction of the underlying statutory definitions, which mean the same thing today that they meant in 1996. *See Brand X*, 545 U.S. at 996 (“The Act’s definitions ... parallel the definitions of enhanced and basic service, not the facilities-based grounds on which [the *Computer II*

unbundling rule] was based, and the Commission remains free to impose special regulatory duties on facilities-based ISPs under its Title I ancillary jurisdiction.”). Similarly, the MFJ court’s expansive construction of the “information service” definition in the MFJ is highly relevant to interpreting the nearly identical statutory definition, even though the original purpose of the MFJ definition—delineating a line-of-business restriction—was abandoned in the early 1990s. *See* AT&T Comments 62 n.104.

c. As an information service, Internet access cannot be a “telecommunications service” because it is undisputed that the categories of “information service” and “telecommunications service” are “mutually exclusive.” *See Stevens Report* ¶ 36. In any event, the same conclusion follows if we begin our analysis instead with the statutory definition of “telecommunications service.” 47 U.S.C. §153(53). Broadband Internet access cannot qualify as such a service because it involves more than pure “transmission, between or among points specified by the user, of information of the user’s choosing, without change in the form or content.” *Id.* § 153(50).

First, as the Commission successfully told the Supreme Court in *Brand X*, broadband Internet access provides more than pure transmission because it offers the capability to “click[] through” to third-party websites and obtain the “contents of the requested web page[],” allowing a subscriber to “interact[] with stored data.” FCC Reply Br. at 5, *Brand X* (No. 04-277) (Mar. 18, 2005) (“FCC *Brand X* Reply Br.”); *see Brand X*, 545 U.S. at 1000 (adopting argument). Some Title II proponents dispute that characterization on the ground that broadband providers “claim to be mere transmitters of information” when they invoke a safe harbor from liability under the Digital Millennium Copyright Act, 17 U.S.C. § 512 (“DMCA”). *See, e.g.*, EFF Comments 18; Public Knowledge Comments 49-50. The DMCA safe harbors, however, are not limited to entities that provide “telecommunications services,” and they do not reference either

“telecommunications services” or the Communications Act. Instead, they immunize various types of “service providers” from liability for copyright infringement under various circumstances that could apply to providers of either telecommunications services or information services. 17 U.S.C. §§ 512(a)-(d).⁹²

Second, broadband Internet access is not a “telecommunications service” for the independent reason that Internet users do not typically specify the “points” between and among which information is sent. For example, users requesting a webpage typically do not specify the Internet server they wish to access. They instead wait for their ISP and various third parties to determine what actual servers can best respond to their request, and any given webpage request often involves communications with multiple dispersed servers and various caching mechanisms. *See* AT&T Comments at 70-71.

Title II proponents respond that the “telecommunications service” definition contains no requirement that users know the precise geographic location of a “called party,” such as the whereabouts of people called on their mobile phones.⁹³ That is true but irrelevant. To begin with, when telephone users dial a telephone number, they at least specify a “point” on the

⁹² One safe harbor is for certain “transitory digital network communications” by “service providers” defined as entities “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.” 17 U.S.C. § 512(k)(1)(A). But there are also safe harbors that protect “service providers” from liability for material stored through “system caching,” for “information residing on [the service provider’s] systems or networks at [the] direction of users,” and for “referring or linking users to an online location containing infringing material or infringing activity, by using information location tools,” such as “a directory, index, reference, pointer, or hypertext link.” *Id.* §§ 512(b)-(d). For these latter safe harbors, the term “service provider” is defined more expansively to include not only those covered by the safe harbor for transitory digital network communications, but also providers “of online services or network access, or the operator of facilities therefor.” *Id.* § 512(k)(1)(B).

⁹³ *See, e.g.*, Public Knowledge Comments 19-21; Free Press Comments 53-54; INCOMPAS Comments 46-48; CDT Comments 10.

network (albeit sometimes a mobile one). In contrast, when Internet users request a webpage, they are requesting information that is typically located at *multiple* “points” (or servers) on the network, *none* of which is specified by the URL entered (or link clicked) by the user.

Just as important, webpages—unlike called parties in traditional telephone calls—routinely come accompanied by advertisements and other information that the user did not request at all, also sent from many unspecified points on the Internet. *See* AT&T Comments at 70-71. To retrieve a webpage, any ISP must therefore use DNS and related information-processing functionality to identify the servers associated with the requested webpage—plus the servers for advertisements inserted by third-party ad networks—and arrange for the transmission of all this information from these various “points” to its customer. *Id.* That is not remotely like transmitting a point-to-point telephone call, the quintessential “telecommunications service.”

2. Sections 230 and 231 Confirm That All Internet Access Services Are Information Services.

Two different subsections of section 230 confirm that broadband Internet access must be classified as an “information service” rather than a “telecommunications service.” *See* AT&T Comments at 71-73. First, section 230(b)(2) declares “the policy of the United States” to “preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation.” 47 U.S.C. § 230(b)(2). In 2002, the Commission cited this section as expressing one of the “overarching principles” that “guided” its decision to classify cable broadband service as an “information service.” *Cable Broadband Order* ¶ 4. The *Title II Order*, however, essentially ignores section 230(b)(2), *see id.* ¶ 395 & n.1141, and the most prominent pro-Title II commenters tend not even to cite that provision. The most likely explanation is that these commenters have no good way to explain

how saddling broadband ISPs with public utility regulation comports with Congress’s mandate to preserve a “vibrant and competitive free market ... unfettered by Federal or State regulation.”

Second, section 230(f)(2) separately confirms that broadband Internet access service should be classified as an information service. *See NPRM* ¶ 31. It states that the term “interactive computer service” means “any *information service*, system, or access software provider that provides or enables computer access by multiple users to a computer server, including specifically *a service or system that provides access to the Internet* and such systems operated or services offered by libraries or educational institutions.” 47 U.S.C. § 230(f)(2) (emphasis added). “On its face, the plain language of this provision deems Internet access service an information service.” *NPRM* ¶ 31.

Some pro-Title II commenters argue that it is unclear whether the clause “including specifically a service ... that provides access to the Internet” modifies “information service” or some other noun phrase, such as “access software” (Incompas Comments 67) or some kind of “system” (OTI Comments 34). This is untenable: the most obvious referent for “service ... that provides access to the Internet” (*i.e.*, Internet access service) is the noun phrase that contains the term “service”: namely, “information service.” Public Knowledge also implausibly contends (at 35) that section 230(f)(2) proves only “that there exist information services that provide access to the internet, not that all services that provide access to the internet are information services.” To the contrary, the formula “any X, including specifically a Y,” does logically imply that all Ys are Xs. For example, if a statute refers to “any person, including specifically a corporation or natural person,” it means that all corporations are “persons” within the meaning of the statute.⁹⁴

⁹⁴ Public Knowledge also contends (at 32) that reading section 230 to require an “information service” classification would “overrule” *Brand X*. Again, that argument reflects a basic misreading of

Finally, in addition to these two provisions of section 230, section 231 independently provides that “[t]he term Internet access service” (1) includes any “service that enables users to access content ... offered over the Internet” and (2) “does not include telecommunications services.” 47 U.S.C. § 231(e)(4); *see* AT&T Comments 72-73. Incompas suggests that this plain-language reading of section 231 somehow contradicts the Commission’s observation in the *Cable Broadband Order* that the final sentence of Section 231 (“[s]uch term does not include telecommunications services”) was meant to “clarify that section 231 was not intended to impair” the Commission’s ability “to regulate basic telecommunications services.” Incompas Comments 68 (citing *Cable Broadband Order* ¶ 1 n.1). But there is no inconsistency between that statement and the *NPRM*’s observation that section 231 supports the classification of broadband Internet access as an “information service” and not a “telecommunications service.”

Public Knowledge also deems it “implausible that Congress intended Section 231 to guide the Commission’s decision making” because “Congress does not ‘hide elephants in mouseholes’ by ‘alter[ing] the fundamental details of a regulatory scheme in vague terms or ancillary provisions.’” Public Knowledge Comments 38 (quoting *USTelecom*, 825 F.3d at 702-703). That argument is exactly backwards. Section 231 did not “alter” anything when it was enacted in 1998; instead, it confirmed the consensus view reflected in the *Stevens Report* (issued seven months earlier) that Internet access, like other gateway services, should be treated as an unregulated information service. *See* AT&T Comments 72-73. The relevant canon of construction is thus the one addressed in our opening comments (at 85-90): “When an agency claims to discover in a long-extant statute an

Brand X. *See* § II.A, *supra*. It is also odd that this argument comes from Public Knowledge, which elsewhere concedes (at 29, 37) that “the Brand X Court did not find that terms like ‘telecommunications’ or ‘information service’ were ambiguous” and that “dial-up ISPs ... are uncontroversially information services.”

unheralded power to regulate ‘a significant portion of the American economy,’ we typically greet its announcement with a measure of skepticism. We expect Congress to speak clearly if it wishes to assign to an agency decisions of vast ‘economic and political significance.’” *Utility Air Regulatory Group v. EPA*, 134 S. Ct. 2427, 2444 (2014) (quoting *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 159-160 (2000)) (citation omitted)). That principle forecloses any Title II classification here.

3. Broadband ISPs Also Offer Consumers DNS and Similar Data Processing Capabilities as Integral Parts of Internet Access, and the “Telecommunications Management” Exception Is Inapplicable.

As discussed, all Internet access services are “information services” for the simple reason that they offer “gateway” access to third-party data sources. But even if ISPs had to provide data processing or data storage functionalities *of their own* before Internet access could meet the definition of “information service,” all ISPs would still qualify because they invariably provide core data-processing functionalities, including those involving the Domain Name System (“DNS”). *See* AT&T Comments 73-75.⁹⁵

DNS is a highly sophisticated and decentralized mechanism for storing and distributing user- and data-location information throughout the Internet. *Cable Broadband Order* ¶ 37. Because it translates human language (*e.g.*, website names) into numerical data (IP addresses)

⁹⁵ Some pro-Title II commenters argue that the distinction between “telecommunications services” and “information services” should reflect layers-based distinctions under the OSI protocol stack, such that services on the “physical,” “link,” and “network” layers would be “telecommunications services” and services at the “transport” and “application” layers would be “information services.” *E.g.*, Public Knowledge Comments 3-8; EFF Internet Engineers Comments 7-10. The short answer is that Congress did not adopt this approach, and the relevant statutory definitions make no reference to “layers.” In any event, the proponents of this approach themselves concede that “DNS is an application-layer protocol.” EFF Internet Engineers Comments 9; *see also* Public Knowledge Comments 7.

that computers can process, it is indispensable to ordinary users as they navigate the Internet.⁹⁶ Even Title II proponents acknowledge that, without DNS, Internet access would be radically different from what it is today. For example, the EFF-associated “Internet Engineers” acknowledge (at 9-10) that it is not feasible for broadband subscribers to manually enter lengthy, numerical IP-addresses. They further acknowledge that DNS provides “benefit[s] to the user” because DNS allows them to “request the particular resource they want, using an addressing system that is human memorable.” *Id.* at 10.

These pro-Title II commenters nonetheless contend that the DNS functionality provided by broadband ISPs is not a basis for classifying internet access as an “information service.” First, they argue that “fewer people are making use of their ISPs’ Domain Name Systems” because of supposed dissatisfaction with ISP-provided “DNS assist” functionality, which redirects users to webpages chosen by ISPs when users enter improper URLs. EFF Internet Engineers Comments 16; *see* AT&T Comments 78-79 (discussing DNS assist). But as an initial matter, that observation proves *our* point: it underscores that when ISPs offer DNS functionality, they provide information to subscribers, not mere “routing.”

Just as important, DNS does not become irrelevant to the classification inquiry merely because some subscribers obtain DNS from third parties. Under the relevant statutory language, classification turns on what providers “offer[.]” consumers. 47 U.S.C. § 153(24), (53). As the Commission explained to the Supreme Court in *Brand X*, a consumer’s decision not to use a given capability “does not eliminate that capability or change the underlying character of the

⁹⁶ *See, e.g.*, Comcast Comments 15-16; CTIA Comments 39; Sandvine Comments, Attachment at 1; USTelecom at 34-35. *See generally Brand X*, 545 U.S. at 999 (“A user cannot reach a third-party’s Web site without DNS.”); *see also Weinstein v. Islamic Republic of Iran*, 831 F.3d 470, 475-76 (D.C. Cir. 2016) (“DNS . . . effectively enables an end-user to access most existing Internet web pages.”).

service offering.” FCC *Brand X* Reply Br. at 4; see *Cable Broadband Order* ¶ 38 (classification “turns on the nature of the functions the end user is offered,” “regardless of whether subscribers use all of the functions provided”). In any event, “the overwhelming majority of customers” continue to rely on their ISPs for DNS functionality, Sandvine Comments, Att. at 1, despite the EFF Internet Engineers’ unsupported and false assertion (at 23) that that use of ISP-supplied DNS is “dwindling.” The continued prevalence of ISP-supplied DNS functionality is due to two main factors: (1) “[i]t is a rare customer in the United States that knows how to manually change their DNS settings, takes the time to do so, and does so on all of their many connected devices,” and (2) ISP-supplied DNS functionality “provide[s] a much better end user experience” than third-party DNS alternatives, in part because of its greater integration with CDN functionality. Sandvine Comments, Attachment at 1.⁹⁷

Alternatively, Title II proponents parrot the *Title II Order*’s conclusion that DNS falls within the “telecommunications management” exception to the “information service” definition.⁹⁸ The Commission rejected precisely this argument in its brief to the Supreme Court in *Brand X*,⁹⁹ and the Supreme Court accepted the Commission’s position on that issue as a

⁹⁷ Although some Title II proponents cite usage statistics for Google’s DNS service, see, e.g., CDT Comments 9; EFF Internet Engineer Comments 17, such usage does not suggest that anyone is actually dissatisfied with ISP-supplied DNS functionality; it shows only that Google Chromecast and Netflix Roku devices are hard-wired to use Google’s DNS. Broadband subscribers may well use Google’s DNS by default on those devices but also use the DNS offered by their ISPs on other devices. See generally Charles Rowell, *How to Block Google DNS on Router for Chromecast or Roku*, The VPN Guru (July 4, 2017), <https://thevpn.guru/block-google-dns-router-roku-chromecast-unblock-american-netflix-outside-usa> (“In the case of Chromecast, Google has hard-coded its DNS server addresses on the device. With Roku, Netflix has also hard-coded Google DNS.”).

⁹⁸ CDT Comments 8; Cogent Comments 29; OTI Comments 34; see also Incompas Comments 55-56; Public Knowledge Comments 45-47.

⁹⁹ The Commission told the Supreme Court: “[I]nformation-processing capabilities such as the DNS and caching are *not* used ‘for the management, control, or operation’ of a telecommunications network, but instead are used to facilitate the information retrieval capabilities that are inherent in Internet

central basis for upholding an “information service” classification for broadband Internet access. *See Brand X*, 545 U.S. at 999-1000 & n.3. The Commission was right then and wrong when it adopted the contrary position in the *Title II Order*.

All agree that the telecommunications management exception codifies the parallel language in the MFJ and the “adjunct-to-basic” exception under the *Computer Inquiries* regime. *See AT&T Comments* 62 n.103, 66. Under both regimes, the exception was narrow and did not encompass even rudimentary “gateway” services such as those described in Section II.B.1 above. Instead, they applied only to voice-oriented functionalities designed to “facilitate use of the basic network without changing the nature of basic *telephone* service.” Mem. Op. and Order, *North Am. Telecomm’n Ass’n*, 101 F.C.C.2d 349, ¶ 28 (May 29, 1985) (“*NATA Centrex Order*”) (emphasis added). For example, an “offering of access to a data base *for purpose of obtaining telephone numbers*” was an “adjunct to basic telephone service,” but “an offering of access to a data base *for most other purposes* is the offering of an enhanced service,” now an information service. *Id.* ¶ 26 (emphasis added). DNS, of course, offers access to databases for “other purposes.”

In addition, to fall within the “adjunct to basic” or “telecommunications management” exceptions, a functionality needed to enable the telephone company to prescribe, for *its own benefit*, a clear dedicated path for any given call through the company’s network *without user interaction*. The quintessential example is the SS7 signaling system, which telephone companies use to route calls from the calling party to the facilities serving called parties, all without any

access. Their use accordingly does not fall within the statutory exclusion.” *See FCC Brand X Reply Br.* at 5-6 n.2.

involvement by end users. *See* AT&T Comments 77-78. In contrast, if “storage and retrieval functions . . . provide information that is useful to end users, rather than carriers, . . . those functions are not adjunct services and cannot be classified as telecommunications services.”¹⁰⁰

As we have explained, DNS lookup functionality falls squarely on the latter side of the line because it is not designed to help a provider “manage” its network; instead, it provides stored information to *end users* to help *them* navigate the Internet and requires direct interaction by end users through their personal devices. AT&T Comments 77-78. Indeed, it is precisely because DNS provides valuable information to end users to help them navigate the Internet that third-parties offer alternative DNS directly to them.¹⁰¹ All agree that third-party DNS functionality is an “information service,” *see Title II Order* ¶ 370 n.1046, and that functionality does not magically become a “telecommunications service” when offered by ISPs. Indeed, if ISP-supplied DNS fell within the “telecommunications management” exception on the theory that ISPs use DNS to manage their networks, that would imply that ISPs *cede the management of their own networks to unsupervised third parties* whenever the ISPs’ end users make use of third-party DNS services. Of course, ISPs do no such thing.

In addition, quite apart from standard “lookup” functionality, DNS also provides other data-processing capabilities that likewise meet the definition of “information service” and fall outside the “telecommunications management” exception. *See* AT&T Comments 78-79; CTIA Comments, Rysavy Decl. ¶ 19. As noted, many providers offer “DNS assist” capabilities where

¹⁰⁰ Mem. Op. and Order, *Bell Operating Companies Petitions for Forbearance from the Application of Section 272 of the Communications Act*, 13 FCC Rcd. 2627, ¶ 18 (Feb. 6, 1998).

¹⁰¹ *See, e.g.*, Google, *Google Public DNS* (last visited Aug. 10, 2017), <https://developers.google.com/speed/public-dns/>. Even the *Title II Order* recognized that such third-party DNS offerings are a pure “information service.” *Title II Order* ¶ 370 n.1046.

a user has specified an invalid webpage. *See* AT&T Comments 78-79; Comcast Comments 16; CTIA Comments, Rysavy Decl. ¶ 19. Likewise, many ISPs offer DNS functionalities enabling users to perform “reverse lookups”—*i.e.*, to access stored information to convert a numeric IP address into a domain name. AT&T Comments 79; CTIA Comments, Rysavy Decl. ¶ 19. In the legacy circuit-switched environment, the Commission found analogous, but less sophisticated, reverse directory assistance to be an enhanced service, and there is no basis for a different outcome here. *See* AT&T Comments 79.

Finally, in addition to DNS, ISP-supplied caching functionalities independently support an information-service classification.¹⁰² Caching is inextricably bound up in what ISPs offer end users, and because it involves “the offering of a capability for ... storing [and] retrieving ... information” held in a cache server, it falls squarely within the statutory definition of “information service.” *See* 47 U.S.C. § 153(24). Indeed, the Supreme Court so held in *Brand X*. It noted that Internet service “facilitates access to third-party Web pages by offering consumers the ability to store, or ‘cache,’ popular content on local computer servers” and cited those caching functionalities as a basis for concluding that Internet service providers offer the “capability for ... acquiring, [storing] ... retrieving [and] utilizing ... information.” *Brand X*, 545 U.S. at 999-1000; *see also Stevens Report* ¶ 76.

In the teeth of that holding, Public Knowledge argues (at 48) that caching cannot support an information service classification because, when providing this functionality, ISPs “only transmit the information sent from an end system, as requested by another end system.” But nothing in the statutory definition of “information service” requires a provider to exercise

¹⁰² *See* AT&T Comments 75-76; *see also* Charter Comments 15; CTIA Comments, Rysavy Decl. ¶¶ 15-16; NCTA Comments 15.

editorial supervision of the content users receive. And Public Knowledge’s contrary suggestion is irreconcilable with regulatory precedent. Under the *Computer Inquiries* regime, voicemail was treated as a quintessential enhanced service because the service permitted “subscriber interactions with stored information” even though the telephone company obviously did not control the messages recorded and retrieved. *See NATA Centrex Order* ¶ 27. Caching is no different from voicemail in this regard, and it falls within the same service classification.

Indeed, taking Title II proponents’ argument to its logical conclusion, caching services offered by third-party CDNs such as Akamai, Limelight, and Amazon would have to be classified as telecommunications services. That is why Title II proponents tie themselves into a pretzel trying to argue that caching is an information service when provided by third-party CDNs but not when provided by ISPs, relying again on the “telecommunications management” exception. *See OTI Comments* 33. That makes no more sense for caching than for DNS. Those functions cannot be said to be part of the “management of [an ISP] telecommunications service,” 47 U.S.C. § 153(24), because no ISP allows unsupervised third parties to “manage” its own network. It is also legally inconsequential that broadband ISPs own last-mile facilities and third-party CDNs do not. As the Supreme Court explained in *Brand X*, “the relevant definitions do not distinguish facilities-based and non-facilities-based carriers.” 545 U.S. at 996. Instead, classification turns upon the “capabilities” that are “offered” by a provider, regardless of whether the provider owns or leases transmission facilities. *Id.* at 998-99. Thus, as NCTA explains (at 21), the core reasoning of the *Title II Order* leads to the perverse conclusion that “a whole host of [non-ISP] entities that ... deliver Internet content likely would qualify as providers of ‘telecommunications services’ as well.”

4. **Virtually All Broadband ISPs Further Offer Additional Data-Processing Features As Part of Their Internet Access Services.**

Quite apart from the provision of pure Internet access, most broadband ISPs qualify for an information service classification for the additional reason that, as the *Title II Order* acknowledged, they offer a wide array of “Internet applications, including e-mail, online storage, and customized homepages, along with newer services such as music streaming and instant messaging.” *Title II Order* ¶ 347. ISPs may also offer even more capabilities in the future. For example, AT&T is investing heavily to transition to a Software Defined Network that will provide subscribers with additional capabilities such as enhanced security functionality.¹⁰³ For classification purposes, “what matters is the finished product made available through a service.” *Wireline Broadband Order* ¶ 16; *see* 47 U.S.C. § 153(24) (“information service” classification turns on the “capabilities” that are “offer[ed]” by the provider). The additional functionalities offered by most ISPs are plainly information services, and because they are routinely “offer[ed]” with Internet access as part of a service bundle, 47 U.S.C. §153(24), (53), they independently compel an “information service” classification.

Like the *Title II Order*, the pro-Title II commenters dismiss the legal significance of ISP-supplied email and similar functionalities on the ground that many customers do not use them and rely instead on third-party services such as Google’s Gmail.¹⁰⁴ But again, as the Commission successfully persuaded the Supreme Court in *Brand X*, statutory classification turns

¹⁰³ *See also* CTIA Comments, Rysavy Decl. ¶¶ 24-28 (discussing user-directed content filtering, video optimization, malware detection, and email offered by ISPs); Sandvine Comments, Att. at 2-3 (discussing malware detection, port blocking, spam/phishing prevention, and anti-spoofing provided by ISPs).

¹⁰⁴ *E.g.*, CDT Comments 8; EFF Internet Engineer Comments 15; Public Knowledge Comments 39-40; OTI Comments 27; *see Title II Order* ¶¶ 330, 347-48.

on what providers “offer,” and a consumer’s decision not to use a given capability “does not eliminate that capability or change the underlying character of the service offering.”¹⁰⁵ Title II advocates cite no relevant change in how broadband providers *offer* services like email since *Brand X* as opposed to how much consumers *value* them. In any event, those advocates do not even establish that, in fact, consumers valued these ISP functionalities radically more in the mid-2000s than they do today. For example, third-party email services such as Yahoo were already “prevalent ... at the time the Commission issued its prior decisions classifying BIAS as an information service.” NCTA Comments 16 n.60.¹⁰⁶ And statistics provided by the pro-Title II advocates themselves show that ISP-provided email addresses remain highly popular with consumers. For example, the EFF Internet Engineers (at 15) cite statistics placing AT&T within the top twelve email providers “in the world.”¹⁰⁷

¹⁰⁵ FCC *Brand X* Reply Br. at 4; *see Brand X*, 545 U.S. at 988-99 (upholding Commission’s determination that an ISP’s “offer” includes the individual components of an “integrated” service provided to consumers); *see also Cable Broadband Order* ¶ 38 (classification “turns on the nature of the functions the end user is offered,” “regardless of whether subscribers use all of the functions provided”); *Wireline Broadband Order* ¶ 16 (“[W]hat matters is the finished product made available through a service.”).

¹⁰⁶ Then-Commissioner Pai made precisely this observation in dissenting from the *Title II Order*. *Id.* at 357 (Pai, dissenting) (quoting *Cable Broadband Order* ¶ 25). In addition, broadband providers have been including other enhanced features for years as part of their integrated offerings. *See* Comcast Comments 23 (“[S]torage, website home page and web browsing, spam filtering, [and] security features ... have been core components of BIAS for many years.”) (citing *Cable Broadband Order* ¶ 17).

¹⁰⁷ If anything, such statistics understate the extensive use of ISP-provided email. Unlike third-party email providers such as Google and Apple, fixed-line ISPs typically provide email addresses to consumers only in the defined geographic regions where they provide service, and they therefore do not have enough subscribers to make it onto any chart of worldwide email traffic. But the fact that AT&T is the 12th leading email provider, *id.* at 15, underscores that substantial numbers of AT&T’s ISP customers use AT&T’s email service.

C. Title III Independently Insulates Mobile Broadband Providers From Common Carriage Regulation.

As discussed in our opening comments (at 90-99), section 332 independently prohibits common carrier regulation of mobile broadband services. *See Cellco P’ship v. FCC*, 700 F.3d 534, 538 (D.C. Cir. 2012). This second layer of statutory immunity stems from the distinct history of mobile services. In 1993, Congress enacted section 332 to ensure that all mobile services interconnected with the telephone network were regulated as common carriage, just as landline phone service was. At the same time, Congress determined that mobile services *not* interconnected with the telephone network (*i.e.*, “private mobile services”) should *not* be regulated as common carriage. *See* 47 U.S.C. § 332(c)(1)(A), (c)(2), (d)(2). Mobile broadband uses Internet Protocol addresses, not the North American Numbering Plan, and does not connect at all with the telephone network.¹⁰⁸ Thus, until 2015, the Commission repeatedly and correctly found that mobile broadband is not a “not an ‘interconnected service’” and is therefore immune from common carrier regulation.¹⁰⁹

As discussed in our opening comments, the *USTelecom* panel majority deferred to the *Title II Order*’s implausible statutory rationale for reversing course on these issues. For the reasons explained in our opening comments (at 90-97) and below, the Commission should now conclude that its pre-2015 interpretation is the only reasonable reading of these statutory provisions. As the Commission concluded in 2007, excluding mobile broadband from the definition of “commercial mobile service” avoids ambiguity or conflict between sections 332 and

¹⁰⁸ *See* Declaratory Ruling, *Appropriate Regulatory Framework for Broadband Access to the Internet over Wireless Networks*, 22 FCC Rcd 5901, ¶ 45 (2001) (“*Wireless Broadband Order*”).

¹⁰⁹ *Id.* ¶ 41; *see also* Second Report and Order, *Reexamination of Roaming Obligations of Commercial Mobile Radio Services Providers*, 26 FCC Rcd 5411, ¶ 41 (Apr. 7, 2011); *2010 Open Internet Order* ¶ 79 & n.247.

3 of the Communications Act, “avoids any absurd or otherwise irrational results, furthers Congress’s goal of encouraging the development of information services by ensuring that they remain free from common carrier regulation, and serves the Act’s overarching goal of fostering competition by providing a level playing field in the market and removing unnecessary regulatory impediments.” *Wireless Broadband Order* ¶ 56. That conclusion is just as applicable today as it was in 2007.

Remarkably, OTI asserts (at 65-100) that the statutory language somehow mandates the tortured statutory analysis undertaken in the *Title II Order*. Nothing in *USTelecom* supports that proposition. *See* 825 F.3d at 714, 718, 721-23 (deferring to “permissibl[e]” interpretations in *Title II Order* but not finding it compelled). In any event, as the Commission has already found in the *Wireless Broadband Order*, OTI’s arguments contradict the text and structure of the relevant provisions of Title III.

OTI’s lead argument (at 73-79) simply ignores the controlling statutory definitions. OTI contends that because mobile broadband services are widely available and popular, they should not be considered “private mobile services” under section 332. But “private mobile service” is a defined term, and the statute does not limit the definition to closed-network services such as “private taxi dispatch or push-to-talk workplace network[s].” OTI Comments 67; *see also id.* at 76-77, 96. The statute instead provides that “any mobile service . . . that is not a commercial mobile service or [its] functional equivalent” is a “private mobile service,” no matter how widely available it may be. 47 U.S.C. § 332(d)(3). Congress adopted this structure because it intended to make clear that (1) functionally interchangeable mobile voice services should be regulated the same irrespective of their license pedigree and technical regulatory classification (*e.g.*, “cellular radio,” “broadband PCS,” or “interconnected SMR”) whereas (2) all mobile services *not*

interconnected with the telephone network should be insulated from common carrier regulation.¹¹⁰ Here, mobile broadband is not a “commercial mobile service” because it is neither interconnected with the public switched network nor functionally equivalent to a service that is so interconnected. AT&T Comments 90-91.¹¹¹

OTI next contends (at 73-83) that the term “the public switched network” in section 332(d)(2) can be read to include both the public switched telephone network and the Internet. That is implausible. *See* AT&T Comments 93-94. First, “public switched network” was a term of art that described the telephone system, and Congress is presumed to have incorporated that accepted meaning of the phrase.¹¹² In any event, Congress phrased the term “public switched network” in the singular and with a definite article. *See* CTIA Comments 50; Verizon Comments 45. It thus made clear that it meant to address a single, unified network. Under OTI’s atextual interpretation, the term “the public switched network” would encompass two

¹¹⁰ See Second Report and Order, *Implementation of Sections 3(n) and 332 of the Communications Act*, 9 FCC Rcd 1411, ¶¶ 77-78 (Mar. 7, 1994) (quoting legislative history) (“*Second Mobile Order*”).

¹¹¹ The snippet of legislative history cited by OTI (at 75-76) is irrelevant: it shows only that Congress intended regulatory parity between legacy “cellular” (850 MHz band) services and an emerging, functionally indistinguishable class of wireless *voice* services (PCS).

¹¹² AT&T Comments 92-93; CTIA Comments 46-47; T-Mobile Comments 16; Verizon Comments 45-46. The Commission held, for example, that “the public switched network interconnects all *telephones* in the country.” Mem. Op. and Order, *Applications of Winter Park Tel. Co. et al.*, 84 F.C.C.2d 689, ¶ 2 n.3 (1981) (emphasis added). And the D.C. Circuit defined the public switched network as “the same network over which regular long distance calls travel.” *Ad Hoc Telecomms. Users Comm. v. FCC*, 680 F.2d 790, 793 (D.C. Cir. 1982); *see also Public Util. Comm’n of Tx. v. FCC*, 886 F.2d 1325, 1327, 1330 (D.C. Cir. 1989) (using “public switched network” and “public switched telephone network” interchangeably). At a minimum, the Commission has discretion to interpret this term to signify the telephone system given that Congress itself used the terms “the public switched network” and “public switched telephone network” interchangeably. *See* AT&T Comments 93 (citing legislative history); *see also* 47 U.S.C. § 1422(b)(1)(B)(ii) (referencing “the public Internet or the public switched network, or both”). OTI suggests (at 80) that *USTelecom* held that the Commission could not reasonably interpret “the public switched network” to mean the telephone network. But *USTelecom* held no such thing; to the contrary, it repeatedly stressed it was deferring to the Commission. *USTelecom*, 825 F.3d at 717-718; *see also id.* at 718 (finding the Commission’s interpretation “permissibl[e]”).

distinct networks—the telephone system and the Internet. Whatever authority the Commission may have to update the definition of “*the* public switched network” to account for changes in the telephone system, that authority cannot reasonably be read to allow the Commission to redefine “*the* public switched network” to include *two* non-interconnected networks. *See* CTIA Comments, Rysavy Decl. ¶ 32.

In any event, even if the statutory language did somehow permit that construction of “the public switched network,” mobile broadband *still* would not qualify as a “commercial mobile service” because it is not “interconnected with” huge swaths of the same supposed “network”—the telephone system. *See* 47 U.S.C. §332(d)(2). Because the telephone network and the Internet are two distinct systems with radically different architectures and routing schemes, the users of either system are interconnected only with other users on the same system and not with users on the other system. To address this problem, the *Title II Order* implausibly redefined “interconnected service” to include any service that connects to “some” rather than “all” end points on “the public switched network.” *Title II Order* ¶ 402. But that approach contradicts the plain meaning of “interconnected”: by definition, interconnectedness is the ability to reach everyone else on the network—*i.e.*, everyone else who is also interconnected within the same system.¹¹³ Indeed, the Commission adhered to that plain meaning for decades, defining an “interconnected” service as one that “gives subscribers the capability to communicate ... [with] *all* other users on the public switched network.” 47 C.F.R. § 20.3 (1994) (emphasis added). Because that is the accepted meaning of the term, it is no surprise that the D.C. Circuit declined

¹¹³ *See, e.g.*, Webster’s Third International Dictionary 1177 (1993) (components of a system are “interconnected” if they “connect mutually or with one another”); Oxford English Dictionary (online edition, visited Aug. 21, 2017) (defining “interconnect” as “[t]o connect each with the other”); Merriam-Webster’s Collegiate Dictionary 609 (10th ed. 1993) (an interconnected system provides “internal connections between the parts or elements” of a system).

to rely on the Commission’s indefensible replacement of the word “all” in that definition with “some.” *See* AT&T Comments 94.

OTI separately urges the Commission to reaffirm the *Title II Order*’s alternative, equally implausible theory that the telephone network and Internet are “interconnected” because users can download third-party VoIP apps onto their smartphones and then place voice calls to the telephone network. OTI Comments 84-94. That argument, to which the D.C. Circuit ultimately deferred, collapses under scrutiny—which is presumably why the Commission itself abandoned the argument when defending the *Title II Order* on appeal. *See* AT&T Comments 94-96. The Commission rightly concluded in 2007 that “[m]obile wireless broadband Internet access service *in and of itself* does not provide [the requisite] capability to communicate” with telephone users because it does “not use the North American Numbering Plan.” *Wireless Broadband Order* ¶ 45 (emphasis added). “Instead, users of a mobile broadband Internet access service need to rely on another service or application,” such as a VoIP service, “to make calls to, and receive calls from,” telephone users. *Id.*

That is still true today. When a mobile broadband subscriber uses a VoIP application on a smartphone to place a call to a telephone number on the telephone network, the mobile broadband service provider does not connect the subscriber to the telephone network.¹¹⁴ Instead, the mobile broadband service connects the subscriber to the VoIP provider, and the VoIP provider makes the connection to the telephone network using the services of a local telephone company.¹¹⁵ Because it focuses on the mobile service itself, section 332 does not authorize the

¹¹⁴ *See* CTIA Comments 50-51; *Id.*, Rysavy Decl. ¶¶ 6, 34; Verizon Comments 47-48.

¹¹⁵ *See* Mem. Op. and Order, *Vonage Holdings Corp. Pet. For Declaratory Ruling*, 19 FCC Rcd 22404 ¶ 8 (2004).

Commission to regulate mobile broadband service as if it were interconnected with the telephone network simply because a broadband customer can use a separate service to connect to the telephone network. *See also* AT&T Comments 95-96 (explaining that this Title III rationale also contradicts the Title II premise of a “telecommunications service” classification).

Further, as Verizon explains (at 48), this argument “still would fail by a long shot” even if, counterfactually, (1) the “public switched network” included both the telephone network and the Internet and (2) it were appropriate to consider third-party VoIP applications that ride on top of broadband platforms. *See also* T-Mobile Comments 15-16. There are innumerable IP-enabled devices that are part of the Internet but incompatible with VoIP software. Verizon Comments 48. Thus, mobile voice service cannot be considered “interconnected” with “the public switched network” under any definition because it cannot be used to reach “billions of IP endpoints.” *Id.*

Finally, OTI argues (at 94-98) that mobile broadband should be considered the “functional equivalent” of commercial mobile service under section 332(d)(3) because it is so popular. This argument is a variant of, and makes no more statutory sense than, OTI’s untenable primary claim that mobile broadband services are too popular to qualify as a “private mobile service” as that term is defined in the same provision. Congress added the “functional equivalent” language to address a single narrow concern: the prospect that a “mobile service [would] not fit within the strict definition of a commercial mobile radio service” even though it was “[f]unctionally ... indistinguishable” from such a service and would thus benefit from an unfair regulatory asymmetry when those two close substitutes competed for customers. *Second Mobile Order* ¶ 78 (quoting legislative history); *see also id.* ¶ 13. Until the *Title II Order*, the Commission rightly concluded that a service could be the “functional equivalent” of a

commercial mobile service only if the services are substitutes in the antitrust sense. *Second Mobile Order* ¶ 80; *see also* 47 C.F.R. § 20.9(a)(14)(ii)(B), (C). Here, no one contends that mobile broadband is a “substitute” for mobile telephony. *See* CTIA Comments 53; T-Mobile Comments 17; Verizon Comments 49-50. Similarly, no one can seriously argue that consumers perceive Internet access and telephone service as “functional equivalents.”

CONCLUSION

The Commission should restore the pre-2015 consensus that broadband Internet access is an information service immune from Title II regulation; it should conditionally forbear from all Title II regulation in the event a court or future Commission seeks to reimpose it later; and it should rely on non-Title II sources of authority to impose light-touch open Internet rules.

Respectfully submitted,

Amanda E. Potter
Christopher M. Heimann
Gary L. Phillips
David L. Lawson
AT&T SERVICES INC.
1120 20th Street, N.W.
Washington, D.C. 20036
(202) 457-2103

/s/ Jonathan E. Nuechterlein
Jonathan E. Nuechterlein
C. Frederick Beckner III
James P. Young
Kathleen M. Mueller
SIDLEY AUSTIN LLP
1501 K Street, N.W.
Washington, D.C. 20005
(202) 736-8000

August 30, 2017