

FCC FACT SHEET*

Restoring Internet Freedom

Declaratory Ruling, Report and Order, and Order - WC Docket No. 17-108

Background: Over twenty years ago, President Clinton and a Republican Congress established the policy of the United States “to preserve the vibrant and competitive free market that presently exists for the Internet . . . unfettered by Federal or State regulation.” For decades, Commission policies encouraged broadband deployment and the development of the Internet. That ended two years ago. In 2015, the Commission imposed heavy-handed, utility-style regulation on Internet service providers (ISPs). Since then, broadband investment has fallen for two years in a row—the first time that that’s happened outside a recession in the Internet era. And new services have been delayed or scuttled by a regulatory environment that stifles innovation.

This *Declaratory Ruling, Report and Order, and Order* would return to the bipartisan consensus on light-touch regulation, ending utility-style regulation of the Internet. This will promote future innovation and investment. And more investment in digital infrastructure will create jobs, increase competition, and lead to better, faster, cheaper Internet access for all Americans, especially those in rural and low-income areas.

What the Declaratory Ruling Would Do:

- Restore the classification of broadband Internet access service as an “information service”—the classification affirmed by the Supreme Court in the *Brand X* case.
- Reinstate the private mobile service classification of mobile broadband Internet access service.
- Clarify the effects of the return to an information service classification on other regulatory frameworks, including the need for a uniform federal regulatory approach to apply to interstate information services like broadband Internet access service.

What the Report and Order Would Do:

- Adopt transparency requirements that ISPs disclose information about their practices to consumers, entrepreneurs, and the Commission.
- Restore the Federal Trade Commission’s ability to protect consumers online from any unfair, deceptive, and anticompetitive practices without burdensome regulations, achieving comparable benefits at lower cost.
- Eliminate the vague and expansive Internet Conduct Standard, under which the FCC micromanaged innovative business models, along with the bright-line rules.

What the Order Would Do:

- Find that the public interest is not served by adding to the already-voluminous record in this proceeding additional materials, including confidential materials submitted in other proceedings.

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Before the
Federal Communications Commission
Washington, D.C. 20554

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

DECLARATORY RULING, REPORT AND ORDER, AND ORDER*

Adopted: []

Released: []

By the Commission:

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* This document has been circulated for tentative consideration by the Commission at its December open meeting. The issues referenced in this document and the Commission’s ultimate resolution of those issues remain under consideration and subject to change. This document does not constitute any official action by the Commission. However, the Chairman has determined that, in the interest of promoting the public’s ability to understand the nature and scope of issues under consideration, the public interest would be served by making this document publicly available. The FCC’s ex parte rules apply and presentations are subject to “permit-but-disclose” ex parte rules. See, e.g., 47 C.F.R. §§ 1.1206, 1.1200(a). Participants in this proceeding should familiarize themselves with the Commission’s ex parte rules, including the general prohibition on presentations (written and oral) on matters listed on the Sunshine Agenda, which is typically released a week prior to the Commission’s meeting. See 47 CFR §§ 1.1200(a), 1.1203.

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I. INTRODUCTION

1. Over twenty years ago, the Telecommunications Act of 1996 established the policy of the United States “to preserve the vibrant and competitive free market that presently exists for the Internet . . . unfettered by Federal or State regulation.”¹ Today, we honor that bipartisan commitment to a free and open Internet by rejecting government control of the Internet. We reverse the Commission’s abrupt shift two years ago to heavy-handed utility-style regulation of broadband Internet access service and return to the light-touch framework under which a free and open Internet underwent rapid and unprecedented growth for almost two decades. We eliminate burdensome regulation that stifles innovation and deters investment, and empower Americans to choose the broadband Internet access service that best fits their needs.

2. We take several actions in this Order to restore Internet freedom. First, we end utility-style regulation of the Internet in favor of the market-based policies necessary to preserve the future of Internet freedom. In the 2015 *Title II Order*, the Commission abandoned almost twenty years of precedent and reclassified broadband Internet access service as a telecommunications service subject to myriad regulatory obligations under Title II of the Communications Act of 1934, as amended (the Act).²

¹ 47 U.S.C. § 230(b)(2). See generally Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified at 47 U.S.C. § 151 *et seq.*) (1996 Act).

² See *Protecting and Promoting the Open Internet*, WC Docket No. 14-28, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd 5601 (2015) (*Title II Order*).

We reverse this misguided and legally flawed approach and restore broadband Internet access service to its Title I information service classification. We find that reclassification as an information service best comports with the text and structure of the Act, Commission precedent, and our policy objectives. We thus return to the approach to broadband Internet access service affirmed as reasonable by the U.S. Supreme Court.³ We also reinstate the private mobile service classification of mobile broadband Internet access service and return to the Commission's definition of "interconnected service" that existed prior to 2015. We determine that this light-touch information service framework will promote investment and innovation better than applying costly and restrictive laws of a bygone era to broadband Internet access service. Our balanced approach also restores the authority of the nation's most experienced cop on the privacy beat—the Federal Trade Commission—to police the privacy practices of Internet Service Providers (ISPs).

3. Next, we require ISPs to be transparent. Disclosure of network management practices, performance, and commercial terms of service is important for Internet freedom because it helps consumers choose what works best for them and enables entrepreneurs and other small businesses to get technical information needed to innovate. Individual consumers, not the government, decide what Internet access service best meets their individualized needs. We return to the transparency rule the Commission adopted in 2010⁴ with certain limited modifications to promote additional transparency, and we eliminate certain reporting requirements adopted in the *Title II Order* that we find to be unnecessary and burdensome.

4. Finally, we eliminate the Commission's conduct rules. The record evidence, including our cost-benefit analysis, demonstrates that the costs of these rules to innovation and investment outweigh any benefits they may have. In addition, we have not identified any sources of legal authority that could justify the comprehensive conduct rules governing ISPs adopted in the *Title II Order*. Lastly, we find that the conduct rules are unnecessary because the transparency requirement we adopt, together with antitrust and consumer protection laws, ensures that consumers have means to take remedial action if an ISP engages in behavior inconsistent with an open Internet.

5. Through these actions, we advance our critical work to promote broadband deployment in rural America and infrastructure investment throughout the nation, brighten the future of innovation both within networks and at their edge, and move closer to the goal of eliminating the digital divide.

II. BACKGROUND

6. Since long before the commercialization of the Internet, federal law has drawn a line between the more heavily-regulated common carrier services like traditional telephone service and more lightly-regulated services that offer more than mere transmission. More than fifty years ago, the Commission decided *Computer I*, the first of a series of decisions known as the *Computer Inquiries*,⁵ which, in combination, created a dichotomy between basic and enhanced services.⁶ In 1980's *Second Computer Inquiry*, the Commission established that basic services offered "pure transmission capability over a communications path that is virtually transparent in terms of its interaction with customer supplied information"⁷ and were "regulated under Title II of the [Communications] Act."⁸ Enhanced services, by

³ See *Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967 (2005) (*Brand X*).

⁴ See *Preserving the Open Internet; Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, Report and Order, 25 FCC Rcd 17905, 17972–80, 17981, paras. 124–35, 137 (2010) (*Open Internet Order*).

⁵ *Regulatory and Policy Problems Presented by the Interdependence of Computer and Communication Services*, Notice of Inquiry, 7 FCC 2d 11 (1966).

⁶ *Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry)*, Docket No. 20828, Final Decision, 77 FCC 2d 384, 420, para. 97 (1980).

⁷ *Id.* at 420, para. 96.

⁸ *Id.* at 428, para. 114.

contrast, were “any offering over the telecommunications network which is more than a basic transmission service. In an enhanced service, for example, computer processing applications are used to act on the content, code, protocol, and other aspects of the subscriber’s information.”⁹ Unlike basic services, the Commission found that “enhanced services should not be regulated under the Act.”¹⁰

7. Just two years later, the federal courts would draw a similar line in resolving the government’s antitrust case against AT&T. The Modification of Final Judgment (MFJ) of 1982 distinguished between “telecommunications services,” which Bell Operating Companies could offer when “actually regulated by tariff,”¹¹ and “information services,” including “data processing and other computer-related services”¹² and “electronic publishing services,”¹³ which Bell Operating Companies were prohibited from offering under the terms of that court decision.¹⁴ The Communications Act’s “information service” definition is based on the definition of that same term used in the Modification of Final Judgment (MFJ) antitrust decision, which governed the Bell Operating Companies after the breakup of the Bell system.¹⁵ “The MFJ distinguished between ‘telecommunications’ and ‘information’ services: the Bell Operating Companies [BOCs] were to provide local exchange telecommunications service, but were forbidden to provide interexchange telecommunications service or information services.”¹⁶

8. In the Telecommunications Act of 1996, intended to “promote competition and reduce regulation,”¹⁷ Congress drew a line between lightly regulated “information services” and more heavily regulated “telecommunications services.”¹⁸ It also found that the “Internet and other interactive computer services have flourished, to the benefit of all Americans, with a minimum of government regulation”¹⁹ and declared it the policy of the United States to “promote the continued development of the Internet and other interactive computer services and other interactive media” and “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.”²⁰ The 1996 Act went on to define “interactive computer service” to include “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”²¹

⁹ *Id.* at 420, para. 97.

¹⁰ *Id.* at 428, para. 114.

¹¹ *U.S. v. Am. Tel. & Tel. Co.*, 552 F. Supp. 131, 228–29 (D.D.C. 1982) (*MFJ Initial Decision*), *aff’d sub nom. Maryland v. U.S.*, 460 U.S. 1001 (1983).

¹² *Id.* at 179.

¹³ *Id.* at 180.

¹⁴ *Id.* at 228.

¹⁵ *Implementation of the Non-Accounting Safeguards of Section 271 and 272 of the Communications Act of 1934, as amended*, CC Docket No. 96-149, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 21905, 21954, para. 99 (1996) (*Non-Accounting Safeguards Order*); *see also, e.g.*, H.R. Conf. Rep. No. 104-458 at 126 (Jan. 31, 1996) (“‘Information service’ and ‘telecommunications’ are defined based on the definition used in the Modification of Final Judgment.”).

¹⁶ *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report to Congress, 13 FCC Rcd 11501, 11514, para. 28 (1998) (*Stevens Report*) (citing *MFJ Initial Decision*, 552 F. Supp. at 226-32).

¹⁷ Preamble, Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996).

¹⁸ 47 U.S.C. § 153(24), (53).

¹⁹ 47 U.S.C. § 230(a)(4).

²⁰ 47 U.S.C. § 230(b)(1), (2).

²¹ 47 U.S.C. § 230(f)(2).

9. For the next 16 years, the Commission repeatedly adopted a light-touch approach to the Internet that favored discrete and targeted actions over pre-emptive, sweeping regulation of Internet service providers. In the 1998 *Stevens Report*, the Commission comprehensively reviewed the Act's definitions as they applied to the emerging technology of the Internet and concluded that Internet access service was properly classified as an information service.²² The *Stevens Report* also found that subjecting Internet service providers and other information service providers to "the broad range of Title II constraints," would "seriously curtail the regulatory freedom that the Commission concluded in *Computer II* was important to the healthy and competitive development of the enhanced-services industry."²³

10. In the 2002 *Cable Modem Order*, the Commission classified broadband Internet access service over cable systems as an "interstate information service,"²⁴ a classification that the Supreme Court upheld in June 2005 in the *Brand X* decision.²⁵ There was no dispute that at least some of the elements of Internet access met the definition of "information services," and the Court rejected claims that "[w]hen a consumer goes beyond those offerings and accesses content provided by parties other than the cable company" that "consumer uses 'pure transmission.'"²⁶ To the contrary, the Court found "reasonable" "the Commission's understanding of the nature of cable modem service"—namely, that "[w]hen an end user accesses a third party's Web site" that user "is equally using the information service provided by the cable company that offers him Internet access as when he accesses the company's own Web site, its e-mail service, or his personal Web page," citing as examples the roles of Domain Name System (DNS) and caching.²⁷

11. In 2004, then-FCC Chairman Michael Powell announced four principles for Internet freedom to further ensure that the Internet would remain a place for free and open innovation with minimal regulation.²⁸ These four "Internet freedoms" include the freedom to access lawful content, the freedom to use applications, the freedom to attach personal devices to the network, and the freedom to obtain service plan information.²⁹

12. In the 2005 *Wireline Broadband Classification Order*, the Commission classified broadband Internet access service over wireline facilities as an information service.³⁰ At the same time,

²² *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report to Congress, 13 FCC Rcd 11501, 11536, para. 73 (1998) (*Stevens Report*).

²³ *Id.* at 11524, para. 46.

²⁴ See *Inquiry Concerning High-Speed Access to the Internet Over Cable & Other Facilities; Internet Over Cable Declaratory Ruling; Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities*, GN Docket No. 00-185, CS Docket No. 02-52, Declaratory Ruling and Notice of Proposed Rulemaking, 17 FCC Rcd 4798, 4802, para. 7 (2002) (*Cable Modem Order*).

²⁵ *Brand X Internet*, 545 U.S. 967.

²⁶ *Brand X*, 545 U.S. at 998.

²⁷ *Id.* at 998-1000.

²⁸ Michael K. Powell, Chairman, Federal Communications Commission, Preserving Internet Freedom: Guiding Principles for the Industry, Remarks at the Silicon Flatirons Symposium (Feb. 8, 2004), https://apps.fcc.gov/edocs_public/attachmatch/DOC-243556A1.pdf

²⁹ *Id.* at 5.

³⁰ See *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities et al.*, CC Docket Nos. 02-33, 01-337, 95-20, 98-10, WC Docket Nos. 04-242, 05-271, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853 (2005) (*Wireline Broadband Classification Order*), *aff'd Time Warner Telecom, Inc. v. FCC*, 507 F.3d 205 (3d Cir. 2007).

the Commission also unanimously endorsed the four Internet freedoms in the *Internet Policy Statement*.³¹ The *Internet Policy Statement* announced the Commission's intent to "incorporate [these] principles into its ongoing policymaking activities" in order to "foster creation, adoption and use of Internet broadband content, applications, services and attachments, and to ensure consumers benefit from the innovation that comes from competition."³²

13. In the 2006 *BPL-Enabled Broadband Order*, the Commission concluded that broadband Internet access service over power lines was properly classified as an information service,³³ and in the 2007 *Wireless Broadband Internet Access Order*, the Commission classified wireless broadband Internet access service as an information service, again recognizing the "minimal regulatory environment" that promoted the "ubiquitous availability of broadband to all Americans."³⁴ The Commission also found that "mobile wireless broadband Internet access service is not a 'commercial mobile radio service' as that term is defined in the Act and implemented in the Commission's rules."³⁵

14. In the 2008 *Comcast-BitTorrent Order*, the Commission sought to directly enforce federal Internet policy that it drew from various statutory provisions consistent with the *Internet Policy Statement*, finding certain actions by Comcast "contravene[d] . . . federal policy" by "significantly imped[ing] consumers' ability to access the content and use the applications of their choice."³⁶ In 2010, the U.S. Court of Appeals for the D.C. Circuit rejected the Commission's action, holding that the Commission had not justified its action as a valid exercise of ancillary authority.³⁷

15. In response, the Commission adopted the 2010 *Open Internet Order*, where once again the Commission specifically rejected Title II-based heavy-handed regulation of broadband Internet access service.³⁸ Instead, the *Open Internet Order* relied on, among other things, newly-claimed regulatory authority under section 706 of the Telecommunications Act to establish no-blocking and no-unreasonable-discrimination rules as well as a requirement that broadband Internet access service providers "publicly disclose accurate information regarding the network management practices,

³¹ *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities et al.*, GN Docket No. 00-185, CC Docket Nos. 02-33, 01-33, 98-10, 95-20, CS Docket No. 02-52, Policy Statement, 20 FCC Rcd 14986 (2005) (*Internet Policy Statement*).

³² *Internet Policy Statement*, 20 FCC Rcd at 14988, para. 5. The Commission did this, for example, by incorporating such principles in its rules governing certain wireless spectrum. See *Service Rules For the 698-746, 747-762 and 777-792 MHz Bands et al.*, WT Docket No. 06-150 et al., Second Report and Order, 22 FCC Rcd 15289, 15361, 15365, paras. 194, 206 (2007).

³³ See *United Power Line Council's Petition for Declaratory Ruling Regarding the Classification of Broadband over Power Line Internet Access Service as an Information Service*, WC Docket No. 06-10, Memorandum Opinion and Order, 21 FCC Rcd 13281 (2006) (*BPL-Enabled Broadband Order*).

³⁴ See *Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks*, Declaratory Ruling, 22 FCC Rcd 5901, 5902, para. 2 (2007) (*Wireless Broadband Internet Access Order*).

³⁵ *Id.* at 5916, para. 41.

³⁶ *Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications; Broadband Industry Practices; Petition of Free Press et al. for Declaratory Ruling that Degrading an Internet Application Violates the FCC's Internet Policy Statement and Does Not Meet an Exception for "Reasonable Network Management,"* File No. EB-08-IH-1518, WC Docket No. 07-52, Memorandum Opinion and Order, 23 FCC Rcd 13028, 13052, 13054, paras. 43, 45 (2008) (*Comcast-BitTorrent Order*).

³⁷ *Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010) (*Comcast*). Among other things, the court held that section 706 of the 1996 Act could not serve as the source of direct authority to which the Commission's action was ancillary because the Commission was bound in *Comcast* by a prior Commission determination that section 706 did not constitute a direct grant of authority. *Id.* at 658-59.

³⁸ *Open Internet Order*, 25 FCC Rcd at 17905, 17972-80, 17981, paras. 124-35, 137.

performance, and commercial terms of its broadband Internet access services.”³⁹

16. In 2014, the D.C. Circuit vacated the no-blocking and no-unreasonable-discrimination rules adopted in the *Open Internet Order*, finding that the rules impermissibly regulated broadband Internet access service providers as common carriers,⁴⁰ in conflict with the Commission’s prior determination that broadband Internet access service was not a telecommunications service and that mobile broadband Internet access service was not a commercial mobile service.⁴¹ The D.C. Circuit nonetheless upheld the transparency rule,⁴² held that the Commission had reasonably construed section 706 of the Telecommunications Act as a grant of authority to regulate broadband Internet access service providers, and suggested that no-blocking and no-unreasonable-discrimination rules might be permissible if Internet service providers could engage in individualized bargaining.⁴³

17. Later that year, the Commission embarked yet again down the path of rulemaking, proposing to rely on section 706 of the Telecommunications Act to adopt enforceable rules using the D.C. Circuit’s “roadmap.”⁴⁴ But in November 2014, then-President Obama called on the FCC to “reclassify consumer broadband service under Title II of the Telecommunications Act.”⁴⁵ Three months later, the Commission shifted course and adopted the *Title II Order*, reclassifying broadband Internet access service from an information service to a telecommunications service,⁴⁶ and reclassifying mobile broadband Internet access service as a commercial mobile service.⁴⁷ The Commission also adopted no-blocking, no-throttling, and no-paid-prioritization rules, as well as a general Internet conduct standard and “enhancements” to the transparency rule.⁴⁸ In 2016, a divided panel of the D.C. Circuit upheld the *Title II Order* in *United States Telecom Ass’n v. FCC*, concluding that the Commission’s classification of broadband Internet access service was permissible under *Chevron* step two.⁴⁹ The D.C. Circuit denied petitions for rehearing of the case *en banc*,⁵⁰ and petitions for *certiorari* remain pending with the Supreme Court.⁵¹

18. In May 2017, we adopted a *Notice of Proposed Rulemaking (Internet Freedom NPRM)*,⁵²

³⁹ *Id.* at 17992 (Appendix A).

⁴⁰ *Verizon v. FCC*, 740 F.3d 623, 655-58 (D.C. Cir. 2014) (*Verizon*).

⁴¹ *Id.* at 650.

⁴² *Id.* at 635-42.

⁴³ *See, e.g., id.* at 657 (quoting *Cellco Partnership v. FCC*, 700 F.3d 534, 549 (D.C. Cir. 2012)).

⁴⁴ *Protecting and Promoting the Open Internet*, WC Docket No. 14-28, Notice of Proposed Rulemaking, 29 FCC Rcd 5561 (2014) (*2014 Notice*).

⁴⁵ President Obama, Statement on Net Neutrality (Nov. 10, 2014), <https://obamawhitehouse.archives.gov/the-press-office/2014/11/10/statement-president-net-neutrality>.

⁴⁶ *Protecting and Promoting the Open Internet*, WC Docket No. 14-28, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd 5601 (2015) (*Title II Order*).

⁴⁷ *Id.* at 5778, para. 388.

⁴⁸ *Id.* at 5607-09, paras. 15-24.

⁴⁹ *United States Telecom Ass’n v. FCC*, 825 F.3d 674 (D.C. Cir. 2016) (*USTelecom*).

⁵⁰ *United States Telecom Ass’n v. FCC*, No. 15-1063, 2017 WL 1541517, at *1 (D.C. Cir. May 1, 2017) (stating that “[e]n banc review would be particularly unwarranted at this point in light of the uncertainty surrounding the fate of the FCC’s Order”).

⁵¹ Petition for Writ of Certiorari, *U.S. Telecom Ass’n*, 825 F.3d 674 (No. 17-504).

⁵² *See Restoring Internet Freedom*, Notice of Proposed Rulemaking, 32 FCC Rcd 4434 (2017) (*Internet Freedom NPRM*).

in which we proposed to return to the successful light-touch bipartisan framework that promoted a free and open Internet and, for almost twenty years, saw it flourish. Specifically, the *Internet Freedom NPRM* proposed to reinstate the information service classification of broadband Internet access service. The *Internet Freedom NPRM* also proposed to reinstate the determination that mobile broadband Internet access service is not a commercial mobile service.⁵³ To determine how to best honor the Commission's commitment to restoring the free and open Internet, the *Internet Freedom NPRM* also proposed to re-evaluate the Commission's existing rules and enforcement regime to analyze whether *ex ante* regulatory intervention in the market is necessary.⁵⁴ Specifically, the *Internet Freedom NPRM* proposed to eliminate the Internet conduct standard and the non-exhaustive list of factors intended to guide application of that rule.⁵⁵ It also sought comment on whether to keep, modify, or eliminate the bright-line conduct and transparency rules.⁵⁶

III. ENDING PUBLIC-UTILITY REGULATION OF THE INTERNET

19. We reinstate the information service classification of broadband Internet access service, consistent with the Supreme Court's holding in *Brand X*.⁵⁷ Based on the record before us, we conclude that the best reading of the relevant definitional provisions of the Act supports classifying broadband Internet access as an information service. Having determined that broadband Internet access service, regardless of whether offered using fixed or mobile technologies, is an information service under the Act, we also conclude that as an information service, mobile broadband Internet access service should not be classified as a commercial mobile service or its functional equivalent. We find that it is well within our legal authority to classify broadband Internet access service as an information service, and reclassification also comports with applicable law governing agency decisions to change course. While we find our legal analysis sufficient on its own to support an information service classification of broadband Internet access service, strong public policy considerations further weigh in favor of an information service classification. Below, we find that economic theory, empirical data, and even anecdotal evidence also counsel against imposing public-utility style regulation on ISPs. The broader Internet ecosystem thrived under the light-touch regulatory treatment of Title I, with massive investment and innovation by both ISPs and edge providers, leading to previously unimagined technological developments and services. We conclude that a return to Title I classification would facilitate critical broadband investment and innovation by removing regulatory uncertainty and lowering compliance costs.

A. Reinstating the Information Service Classification of Broadband Internet Access Service

1. Scope

20. We continue to define "broadband Internet access service" as a mass-market⁵⁸ retail service by wire or radio that provides the capability to transmit data to and receive data from all or

⁵³ *Id.* at 4453, para. 55.

⁵⁴ *Id.* at 4458, para. 70.

⁵⁵ *Id.* at 4458, para. 72.

⁵⁶ *Id.* at 4460, para. 76, 4461-64, paras. 80-91.

⁵⁷ *Brand X*, 545 U.S. at 980.

⁵⁸ By mass market, we mean services marketed and sold on a standardized basis to residential customers, small businesses, and other end-user customers such as schools and libraries. "Schools" would include institutions of higher education to the extent that they purchase these standardized retail services. For purposes of this definition, "mass market" also includes broadband Internet access service purchased with the support of the E-rate and Rural Healthcare programs, as well as any broadband Internet access service offered using networks supported by the Connect America Fund (CAF), but does not include enterprise service offerings or special access services, which are typically offered to larger organizations through customized or individually negotiated arrangements. See *Open Internet Order*, 25 FCC Rcd at 17932, para. 45; *Title II Order*, 30 FCC Rcd at 5745-46, para. 336, n.879.

substantially all Internet endpoints, including any capabilities that are incidental to and enable the operation of the communications service, but excluding dial-up Internet access service.⁵⁹

21. The term “broadband Internet access service” includes services provided over any technology platform, including but not limited to wire, terrestrial wireless (including fixed and mobile wireless services using licensed or unlicensed spectrum), and satellite. For purposes of our discussion, we divide the various forms of broadband Internet access service into the two categories of “fixed” and “mobile.” With these two categories of services—fixed and mobile—we intend to cover the entire universe of Internet access services at issue in the Commission’s prior broadband classification decisions,⁶⁰ as well as all other broadband Internet access services offered over other technology platforms that were not addressed by prior classification orders. We also make clear that our classification finding applies to all providers of broadband Internet access service, as we delineate them here, regardless of whether they lease or own the facilities used to provide the service.⁶¹ “Fixed” broadband Internet access service refers to a broadband Internet access service that serves end users primarily at fixed endpoints using stationary equipment, such as the modem that connects an end user’s home router, computer, or other Internet access device to the Internet.⁶² The term encompasses the delivery of fixed broadband over any medium, including various forms of wired broadband services (e.g., cable, DSL, fiber), fixed wireless broadband services (including fixed services using unlicensed spectrum), and fixed satellite broadband services. “Mobile” broadband Internet access service refers to a broadband Internet access service that serves end users primarily using mobile stations.⁶³ Mobile broadband Internet access includes, among other things, services that use smartphones or mobile-network-enabled tablets as the primary endpoints for connection to the Internet.⁶⁴ The term also encompasses mobile satellite broadband services.

22. As the Commission found in 2010, broadband Internet access service does not include services offering connectivity to one or a small number of Internet endpoints for a particular device, e.g., connectivity bundled with e-readers, heart monitors, or energy consumption sensors, to the extent the service relates to the functionality of the device.⁶⁵ To the extent these services are provided by ISPs over last-mile capacity shared with broadband Internet access service, they would be non-broadband Internet access service data services (formerly specialized services). As the Commission found in both 2010 and 2015, non-broadband Internet access service data services do not fall under the broadband Internet access service category.⁶⁶ Such services generally are not used to reach large parts of the Internet; are not a

⁵⁹ 47 CFR § 8.11(a); *Open Internet Order*, 25 FCC Rcd at 17932, para. 44; *id.* at 17935, para. 51 (finding that the market and regulatory landscape for dial-up Internet access service differed from broadband Internet access service).

⁶⁰ *See Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5909-10, paras. 19, 22; *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4818-19, para. 31; *Wireline Broadband Classification Order*, 20 FCC Rcd at 14860, para. 9; *BPL-Enabled Broadband Order*, 21 FCC Rcd 13281.

⁶¹ As the Supreme Court observed in *Brand X*, “the relevant definitions do not distinguish facilities-based and non-facilities-based carriers.” *Brand X*, 545 U.S. at 997.

⁶² *Open Internet Order*, 25 FCC Rcd at 17934, para. 49; *Title II Order*, 30 FCC Rcd at 5683, para. 188.

⁶³ *See* 47 U.S.C. § 153(34); *Open Internet Order*, 25 FCC Rcd at 17934, para. 49.

⁶⁴ We note that “public safety services” as defined in section 337(f)(1) would not meet the definition of “broadband Internet access service” subject to the rules herein given that “such services are not made commercially available to the public by the provider” as a mass-market retail service. 47 U.S.C. § 337(f)(1).

⁶⁵ *See 2010 Open Internet Order*, 25 FCC Rcd at 17933, para. 47. *See id.* at 17933, n.149.

⁶⁶ *Open Internet Order*, 25 FCC Rcd at 17965-66, paras. 112-13; *Title II Order*, 30 FCC Rcd at 5696, para. 207; *see also* Illinois DoIT Comments at 1-2 (“We believe it is important to highlight this distinction between BIAS and non-BIAS data services to allow development of innovative business models that address consumer needs, that are not met through a standard BIAS offering.”).

generic platform, but rather a specific applications-level service; and use some form of network management to isolate the capacity used by these services from that used by broadband Internet access services.⁶⁷ Further, we observe that to the extent ISPs “use their broadband infrastructure to provide video and voice services, those services are regulated in their own right.”⁶⁸

23. Broadband Internet access service also does not include virtual private network (VPN) services, content delivery networks (CDNs), hosting or data storage services, or Internet backbone services (if those services are separate from broadband Internet access service), consistent with past Commission precedent.⁶⁹ The Commission has historically distinguished these services from “mass market” services, as they do not provide the capability to transmit data to and receive data from all or substantially all Internet endpoints.⁷⁰ We do not disturb that finding here.

24. Finally, we observe that to the extent that coffee shops, bookstores, airlines, private end-user networks such as libraries and universities, and other businesses acquire broadband Internet access service from a broadband provider to enable patrons to access the Internet from their respective establishments, provision of such service by the premise operator would not itself be considered a broadband Internet access service unless it was offered to patrons as a retail mass market service, as we define it here.⁷¹ Likewise, when a user employs, for example, a wireless router or a Wi-Fi hotspot to create a personal Wi-Fi network that is not intentionally offered for the benefit of others, he or she is not offering a broadband Internet access service, under our definition, because the user is not marketing and selling such service to residential customers, small business, and other end-user customers such as schools and libraries.

2. Broadband Internet Access Service Is an Information Service Under the Act

25. In deciding how to classify broadband Internet access service, we find that the best reading of the relevant definitional provisions of the Act supports classifying broadband Internet access service as an information service. Section 3 of the Act defines an “information service” as “the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service.”⁷² Section 3 defines a “telecommunications service,” by contrast, as “the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.”⁷³ Finally, Section 3 defines “telecommunications”—used in each of the prior two definitions—as “the transmission, between or among points specified by the user, of information of the user’s choosing, without change in the form or content of the information as sent and received.”⁷⁴ Prior to the *Title II Order* the Commission had long interpreted and applied these terms to classify various forms of Internet access service as information services—a conclusion affirmed as reasonable by the Supreme Court in

⁶⁷ *Title II Order*, 30 FCC Rcd at 5697, para. 209.

⁶⁸ Cox Comments at 33.

⁶⁹ *2010 Open Internet Order*, 25 FCC Rcd at 17933, para. 47.

⁷⁰ *Id.* Consistent with past Commissions, we note that the rules we adopt today apply only so far as the limits of an ISP’s control over the transmission of data to or from its broadband customers.

⁷¹ See *2010 Open Internet Order*, 25 FCC Rcd at 17935, para. 52. Although not bound by the rules we adopt today, we encourage premise operators to disclose relevant restrictions on broadband service they make available to their patrons. See *id.* at 17936, para. 163.

⁷² 47 U.S.C. § 153(24).

⁷³ 47 U.S.C. § 153(53).

⁷⁴ 47 U.S.C. § 153(50).

Brand X.⁷⁵ Our action here simply returns to that prior approach.

26. When interpreting a statute it administers, the Commission, like all agencies, “must operate ‘within the bounds of reasonable interpretation.’ And reasonable statutory interpretation must account for both ‘the specific context in which . . . language is used’ and ‘the broader context of the statute as a whole.’”⁷⁶ Below, we first explore the meaning of the “capability” contemplated in the statutory definition of “information service,” and find that broadband Internet access service provides consumers the “capability” to engage in all of the information processes listed in the information service definition. We also find that broadband Internet access service likewise provides information processing functionalities itself, such as DNS and caching, which satisfy the capabilities set forth in the information service definition. We then address what “capabilities” we believe are being “offered” by ISPs, and whether these are reasonably viewed as separate from or inextricably intertwined with transmission, and find that broadband Internet access service offerings inextricably intertwine these information processing capabilities with transmission.

27. We find that applying our understanding of the statutory definitions to broadband Internet access service as it is offered today most soundly leads to the conclusion that it is an information service. Although the Internet marketplace has continued to develop in the years since the earliest classification decisions, broadband Internet access service offerings still involve a number of “capabilities” within the meaning of the Section 3 definition of information services, including critical capabilities that all ISP customers must use for the service to work as it does today. While many popular uses of the Internet have shifted over time, the record reveals that broadband Internet access service continues to offer information service capabilities that typical users both expect and rely upon. Indeed, the basic nature of Internet service—“[p]rovid[ing] consumers with a comprehensive capability for manipulating information using the Internet via high-speed telecommunications”—has remained the same since the Supreme Court upheld the Commission’s similar classification of cable modem service as an information service twelve years ago.⁷⁷

28. A body of precedent from the courts and the Commission served as the backdrop for the 1996 Act and informed the Commission’s original interpretation and implementation of the statutory definitions of “telecommunications,” “telecommunications service,” and “information service.” The classification decisions in the *Title II Order* discounted or ignored much of that precedent. Without viewing ourselves as formally bound by that prior precedent,⁷⁸ we find it eminently reasonable, as a legal matter, to give significant weight to that pre-1996 Act precedent in resolving how the statutory definitions apply to broadband Internet access service, enabling us to resolve statutory ambiguity in a manner that we believe best reflects Congress’ understanding and intent.⁷⁹

⁷⁵ *Brand X*, 545 U.S. at 998 (finding “reasonable” “the Commission’s understanding of the nature of cable modem service” and affirming its classification as an information service).

⁷⁶ *Utility Air Regulatory Group v. EPA*, 134 S. Ct. 2427, 2442 (2014).

⁷⁷ *Brand X*, 545 U.S. at 987.

⁷⁸ Our analysis thus is not at odds with the statement in *USTelecom* that the 1996 Act definitions were not “intended to freeze in place the Commission’s existing classification of various services.” *U.S. Telecom Ass’n v. FCC*, 825 F.3d 674, 703 (D.C. Cir. 2016) (*USTelecom*); see also, e.g., Free Press Reply at 10 (arguing that the Commission should not “base its current judgments solely in analogies to proceedings from the Bell era”).

⁷⁹ See, e.g., *Global Crossing Telecomms., Inc. v. Metrophones Telecomms., Inc.*, 550 U.S. 45, 48 (2007) (“[R]egulatory history helps to illuminate the proper interpretation and application” of the provisions of the Act at issue there); *Brand X*, 545 U.S. at 992-93 (“Congress passed the definitions in the Communications Act against the background of [the Commission’s *Computer Inquiries*] regulatory history, and we may assume that the parallel terms ‘telecommunications service’ and ‘information service’ substantially incorporated their meaning, as the Commission has held”); ADTRAN Comments at 10 (“This precedent is relevant not simply as *stare decisis*, but because the Commission in those previous decisions had analyzed the facts, nature of the services, and the

(continued....)

a. Broadband Internet Access Service Information Processing Capabilities

29. We begin by evaluating the “information service” definition and conclude that it encompasses broadband Internet access service. Broadband Internet access service includes “capabilit[ies]” meeting the information service definition under a range of reasonable interpretations of that term. In other contexts, the Commission has looked to dictionary definitions and found the term “capability” to be “broad and expansive,” including the concepts of “potential ability” and “the capacity to be used, treated, or developed for a particular purpose.”⁸⁰ Because broadband Internet access service necessarily has the capacity or potential ability to be used to engage in the activities within the information service definition—“generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications”⁸¹—we conclude that it is best understood to have those “capabilit[ies].” The record reflects that fundamental purposes of broadband Internet access service are for its use in “*generating*” and “*making available*” information to others, for example through social media and file sharing;⁸² “*acquiring*” and “*retrieving*” information from sources such as websites and online streaming and audio applications, gaming applications, and file sharing applications;⁸³ “*storing*” information in the cloud and remote servers, and via file sharing applications;⁸⁴

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legislative interplay and history to conclude that BIAS is an information service.”); ACA Comments at 44. Consistent with this approach as a traditional tool of statutory interpretation, we reject arguments insofar as they suggest that we should disregard this precedent largely out-of-hand. *See, e.g.*, Free Press Reply at 11 (“[T]he MFJ and *Computer Inquiries* were based in large part on the Commission’s interpretation of its own rules and authority, but the passage of the 1996 Act superseded them.”); Public Knowledge Reply at 32 (“[T]he 1996 Telecommunications Act supersedes the MFJ.”). More generally, of course, this precedent, and *Brand X* in particular, demonstrate that the Act does not unambiguously compel a telecommunications service classification. *See U.S. Telecom Ass’n v. FCC*, 855 F.3d 381, 384 (D.C. Cir. 2017) (Srinivasan, J., and Tatel, J., concurring in the denial of rehearing en banc) (“The issue in *Brand X* was whether the Communications Act compelled the FCC to classify cable broadband ISPs as telecommunications providers subject to regulatory treatment as common carriers. The Court answered that question no.”).

⁸⁰ *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, et al.*, CC Docket Nos. 01-338, 98-147, 96-98, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd 16978, 17020, para. 54 & n.194 (2003), *rev’d on other grounds U.S. Telecom Ass’n v. FCC*, 359 F.3d 554 (D.C. Cir. 2004).

⁸¹ 47 U.S.C. § 153(24); *see also, e.g.*, AT&T Comments at 3 (asserting that broadband Internet access service “qualifies under *each* of the eight, independent parts of the statutory definition of that term”); Comcast Comments at 12; Verizon Comments at 35; Charter Comments at 14; NCTA Comments at 13; Reason Foundation Comments at 9; ADTRAN at 5-6; Alaska Communications Comments at 4; ACA Comments at 50-51; CenturyLink Comments at 20; CTIA Comments at 28-29; Free State Foundation Comments at 2; ITIF Comments at 12-13; Inmarsat Comments at 9-10; LGBT Technology Partnership Comments at 4; Mobile Future Comments at 10-11; T-Mobile Comments at 13; AT&T Reply at 60; Comcast Reply at 4-6; CTIA Reply at 22; Free State Foundation Comments at 10; Cox Reply Comments at 3.

⁸² *See, e.g.*, ACA Exhibit B, Declaration of Chris Kyle at 2, ACA Exhibit C, Declaration of Brian Lynch at 2, ACA Exhibit E, Declaration of Steve Timcoe at 2; Cisco Comments at 14, n.43; Mobile Future Comments at 10-11; CenturyLink Comments at 23; Cisco Comments at 14, n.43; Free State Foundation Comments at 10; Mobile Future Comments at 11; Verizon Comments at 35; Comcast Comments at 13; Cox Comments at 9.

⁸³ *See, e.g.*, Cisco Comments at 14, n.43; Free State Foundation Comments at 10; Mobile Future Comments at 10-11; ADTRAN Comments at 5-6; Free State Foundation Comments at 10; Mobile Future Comments at 10-11; CenturyLink Comments at 21-22; Verizon Comments at 35; CenturyLink Comments at 23; Comcast Comments at 12; Cox Comments at 9; NCTA Comments at 13-14.

⁸⁴ *See, e.g.*, Verizon Comments at 35; CenturyLink Comments at 23; Cisco Comments at 14, n.43; Comcast Comments at 13; Cox Comments at 9; Free State Foundation Comments at 10; Mobile Future Comments at 10-11; NCTA Comments at 13-14.

“transforming” and “processing” information such as by manipulating images and documents, online gaming use, and through applications that offer the ability to send and receive email, cloud computing and machine learning capabilities;⁸⁵ and “utilizing” information by interacting with stored data.⁸⁶ These are just a few examples of how broadband Internet access service enables customers to generate, acquire, store, transform, process, retrieve, utilize, and make available information. These are not merely incidental uses of broadband Internet access service—rather, because it not only has “the capacity to be used” for these “particular purpose[s]” but was designed and intended to do so,⁸⁷ we find that broadband Internet access is best interpreted as providing customers with the “capability” for such interactions with third party providers.⁸⁸

30. We also find that broadband Internet access is an information service irrespective of whether it provides the *entirety* of any end user functionality or whether it provides end user functionality in tandem with edge providers.⁸⁹ We do not believe that Congress intended the classification question to turn on an analysis of which capabilities the end user selects, which could change over time. Further, we are unpersuaded by commenters who assert that in order to be considered an “information service,” an ISP must not only offer customers the “capability” for interacting with information that may be offered by third parties (“click-through”), but must also provide the ultimate content and applications themselves.⁹⁰ Although there is no dispute that many edge providers likewise perform functions to facilitate information processing capabilities,⁹¹ they *all* depend on the combination of information-processing and transmission that ISPs make available through broadband Internet access service.⁹² The fundamental purpose of

⁸⁵ See, e.g., ACA Exhibit B, Declaration of Chris Kyle at 2, ACA Exhibit C, Declaration of Brian Lynch at 2, ACA Exhibit E, Declaration of Steve Timcoe at 2 (asserting that their broadband Internet access services grants their customers the capability to transform content at their request); Cisco Comments at 14, n.43 (asserting that broadband Internet access users transform and process information every time they input a plaintext command into a browser or search engine); Cox Comments at 9; Mobile Future Comments at 10-11; CenturyLink Comments at 22-24; Free State Foundation Comments at 10; Verizon Comments at 35; Comcast Comments at 13.

⁸⁶ See, e.g., CenturyLink Comments at 21- 22; Cisco Comments at 14, n.43; Comcast Comments at 13; Cox Comments at 9; Free State Foundation Comments at 10; Mobile Future Comments at 11; NCTA Comments at 13-14.

⁸⁷ *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, et al.*, 18 FCC Rcd at 17020, para. 54 n. 194 (discussing definition of “capability”).

⁸⁸ AT&T Comments at 3, 4 (“Giving consumers the ‘capability for’ such interactions with third party providers is of course the very essence of broadband Internet access.”); see also NCTA Comments at 13. We further observe that even though the record reflects that broadband Internet access service possesses all of the statutorily enumerated “capabilities,” the use of the conjunction “or” among the listed capabilities requires that a service only offer one capability to bring a service within the statutory definition of information service. See Comcast Comments at 19; Free State Foundation Comments at 10, 12.

⁸⁹ See NCTA Reply at 6.

⁹⁰ See Public Knowledge Comments at 27; Internet EngineersComments at 20-21; CDT Comments at 5; see also OTI New America Comments at 29-30 (asserting that when “information service” was defined in the MFJ, the phrase “meant that the information service provider itself is engaged in the processing of the information [but] the examples listed in the NPRM are not that,” and “[i]f a telecommunications service were transformed into an information service because it made available the information services *of others*, then no general use service could ever constitute a telecom service.” (emphasis in original)); Peha Reclassification Comments at 1; Ben Kreuter Comments at 4; New Media Rights Comments at 7; Netflix Reply at 4.

⁹¹ Cf., e.g., Mitchell Lazarus Comments at 2 (“Examples are Facebook, Wikipedia, and almost any other website.”).

⁹² See Comcast Comments at 14 (“When a consumer uploads new content to Facebook, for instance, it is not only Facebook that provides the information-processing functionality necessary for such activity; it is also the BIAS provider whose information-processing capabilities enable consumers to connect and interact with Facebook’s servers in the first place.”).

broadband Internet access service is to “enable a constant flow of computer-mediated communications between end-user devices and various servers and routers to facilitate interaction with online content.”⁹³

31. From the earliest decisions classifying Internet access service, the Commission recognized that even when ISPs enable subscribers to access third party content and services, that can constitute “a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications.”⁹⁴ As the Commission explained in the *Stevens Report*, “[s]ubscribers can retrieve files from the World Wide Web, and browse their contents, *because* their service provider offers the ‘capability for . . . acquiring, . . . retrieving [and] utilizing . . . information.’”⁹⁵ Thus, even where an ISP enables end-users to access the content or applications of a third party, the Commission nonetheless found that constituted the requisite information services “capability.”⁹⁶ When the *Title II Order* attempted to evaluate customer perception based on their usage of broadband Internet access service, it failed to persuasively grapple with the relevant implications of prior Commission classification precedent. The *Title II Order* argued that broadband Internet access service primarily is used to access content, applications, and services from third parties unaffiliated with the ISP in support of the view that customers perceive it as a separate offering of telecommunications.⁹⁷ The *Title*

⁹³ NCTA Reply at 7; *see also* Free State Foundation Reply at 30 (explaining that ISPs’ coordination with third parties, by itself, does not alter the “nature of the functionality or service that broadband ISPs ultimately offer to end users. In such circumstances, it is the broadband ISPs that combine third-party supplied functionalities with their own and ultimately provide the integrated service offering to end users—with end users routinely unaware of whether or which particular functions might happen to be performed by third parties rather than broadband ISPs”); *infra* para. 56.

⁹⁴ *See, e.g., Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5910, para. 25; *BPL-Enabled Broadband Order*, 21 FCC Rcd at 13285-86, para. 9; *Wireline Broadband Classification Order*, 20 FCC Rcd at 14860-61, para. 9; *Cable Modem Order*, 17 FCC Rcd at 4821-22, para. 37; *Stevens Report*, 13 FCC Rcd at 11537, para. 76.

⁹⁵ *Stevens Report*, 13 FCC Rcd at 11538, para. 76 (emphasis added); *see also id.* at 11538-39, para. 78 (explaining with specific respect to e-mail that the ISP “does not send that message directly to the recipient” akin to a “paperless fax,” but instead sends it to the recipient’s mail server, which stores it until it is further stored, rewritten, forwarded or otherwise processed). Attempts to distinguish the Commission’s classification precedent thus are unfounded insofar as they fail to account for this aspect of the Commission’s analysis in those orders. *See, e.g., Scott Jordan Reply* at 9 (“The *Stevens Report* concluded that dial-up Internet access service was an information service because ISP-provided webpage hosting, webpage caching, and email offered such capabilities, not because dial-up Internet access service enabled an end user to utilize third party information service applications.” (footnotes omitted)).

⁹⁶ *See, e.g., ACA Comments* at 43 (“[O]ffering of a capability’ for engaging in all of these activities” such as using Facebook or YouTube “is exactly what is provided by broadband Internet access” (quoting *U.S. Telecom Ass’n v. FCC*, 855 F.3d 381, 395 (D.C. Cir. 2017) (Brown, J., dissenting from denial of rehearing *en banc*) and citing *Stevens Report*, 13 FCC Rcd at 11537-38, para. 76); AT&T Comments at 69-70 (“As the Commission and Solicitor General explained in *Brand X*, Internet access inherently 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. . . . The Commission’s reclassification decision erroneously turned this point on its head, finding that Internet access is a pure transmission service because it is ‘useful to consumers today primarily as a conduit for reaching modular content, applications, and services that are provided by unaffiliated third parties.’ To the contrary, it is precisely because Internet access is useful to consumers for these purposes that it falls squarely within the statutory definition of information service.”); USTelecom Comments at 31-32; Comcast Reply at 11 (“[T]he definition of ‘information service’ nowhere requires that ISP capabilities be *solely* responsible for any end-user functionality; it requires only that ISPs ‘offer’ an integrated ‘capability’ beyond mere transmission, which they unquestionably do.”); Cox Reply at 5-6; NCTA Reply at 6-7; Verizon Reply at 32, 34.

⁹⁷ *See, e.g., Title II Order*, 30 FCC Rcd at 5753-55, paras. 347-50; *see also USTelecom*, 825 F.3d at 698-99; AARP Comments at 91; Atty’s General et al. Comments at 13-15; Internet Engineers Comments at 13; OTI New America Comments at 28; Public Knowledge Comments at 31-32, 39; RISE Stronger Comments at 15-16; EFF Comments at 17-19; OTI New America Reply at 18-19.

II Order offers no explanation as to why its narrower view of “capability” was more reasonable than the Commission’s previous, long-standing view (other than seeking to advance the classification outcome that *Order* was driving towards). Consequently, the *Title II Order* essentially assumed away the legal question of whether end-users perceive broadband Internet access service as offering them the “capability for . . . acquiring, . . . retrieving [and] utilizing . . . information” under the broader reading of “capability” in prior Commission precedent.

32. But even if “capability” were understood as requiring more of the information processing to be performed by the classified service itself, we find that broadband Internet access service meets that standard. Not only do ISPs offer end users the capability to interact with information online in each and every one of the ways set forth above, they also do so through a variety of functionally integrated information processing components that are part and parcel of the broadband Internet access service offering itself.⁹⁸ In particular, we conclude that DNS and caching functionalities, as well as certain other information processing capabilities offered by ISPs,⁹⁹ are integrated information processing capabilities offered as part of broadband Internet access service to consumers today.¹⁰⁰

33. *DNS.* We find that Domain Name System (DNS) is an indispensable functionality of broadband Internet access service.¹⁰¹ DNS is a core function of broadband Internet access service that involves the capabilities of generating, acquiring, storing, transforming, processing, retrieving, utilizing and making available information.¹⁰² DNS is used to facilitate the information retrieval capabilities that

⁹⁸ See, e.g., CenturyLink Comments at 24; AT&T Comments at 4 (“But even if ISPs had to provide ‘data-processing’ or ‘data storage’ functionalities *of their own* before Internet access could qualify as an information service, Internet access would still qualify as such because it invariably includes such functionalities (e.g., DNS and/or caching.”); Comcast Comments at 7-8 (“Not only does BIAS still offer end users the capability to interact with information online *in each and every one of the ways* set forth in the Act’s ‘information service’ definition, it also does so through a variety of functionally integrated information-processing components—such as Domain Name Service (‘DNS’) functionalities; spam, malware, and other consumer protection security features; caching; email; storage; and other capabilities—that are part and parcel of the ‘offer’ of broadband service and that confirm the correctness of the information service classification.”).

⁹⁹ In addition to DNS and caching, the record reflects that ISPs may also offer a variety of additional features that consist of information processing functionality inherently intertwined with the underlying service. See, e.g., CenturyLink Comments at 26. These additional features include, and are not limited to: email, speed test servers, backup and support services, geolocation based advertising, data storage, parental controls, unique programming content, spam protection, pop-up blockers, instant messaging services, on-the-go access to Wi-Fi hotspots, various widgets, toolbars, and applications. See, e.g., CenturyLink Comments at 24-26; AT&T Comments at 80-81. While we do not find the offering of these information processing capabilities determinative of the classification of broadband Internet access service, their inclusion in the broadband Internet access service and the capabilities, and functionalities necessary to make these features possible, further support the “information service” classification. See CTIA Comments at 40; AT&T Reply at 77 (“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, they independently compel an ‘information service’ classification” (citation omitted)); Comcast Comments at 7-8; CenturyLink Comments at 24.

¹⁰⁰ See Peha Reclassification Comments at 5 (“It is not relevant which services were offered or used decades ago. It is the Internet services and technology of 2017 that matter.”); cf. Commercial Network Services Comments at 1 (“The definition of ‘information service’ was created by the telecommunications act of 1996, at a time when CompuServe, America Online and Prodigy were how America’s spent their time online and all were accessed by dial-up telephone modem company.”); ACLU/EFF Reply at 13; OTI New America Reply at 8.

¹⁰¹ While we accept that DNS is not necessary for transmission, we reject assertions that it is not indispensable to the broadband Internet access service customers use—and expect—today. See, e.g., Peha Reclassification Comments at 13, 18; CDT Comments at 8-9; ITIF Comments at 13.

¹⁰² See Nominum Comments at 2; Sandvine Comments at 2 (explaining that such servers generate recursive DNS queries, acquire and store domain name information, transform and process end user queries, retrieve domain name data from the Internet, utilize domain name data, and make available information of various types that is stored in

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are inherent in Internet access.¹⁰³ DNS allows “‘click through’ access from one web page to another, and its computer processing functions analyze user queries to determine which website (and server) would respond best to the user’s request.”¹⁰⁴ Because it translates human language (*e.g.*, the name of a website) into the numerical data (*i.e.*, an IP address) that computers can process, it is indispensable to ordinary users as they navigate the Internet.”¹⁰⁵ Without DNS, a consumer would not be able to access a website by typing its advertised name (*e.g.*, fcc.gov or cnn.com).¹⁰⁶ The *Brand X* Court recognized the importance of DNS, concluding that “[f]or an Internet user, ‘DNS is a must. . . . [N]early all of the Internet’s network services use DNS. That includes the World Wide Web, electronic mail, remote terminal access, and file transfer.’”¹⁰⁷ While ISPs are not the sole providers of DNS services,¹⁰⁸ the vast majority of ordinary consumers rely upon the DNS functionality provided by their ISP,¹⁰⁹ and the absence of ISP-provided DNS would fundamentally change the online experience for the consumer.¹¹⁰ We also

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the DNS); AT&T Comments at 73 (expressing DNS provides ISPs with data-processing and data storage functionalities of its own).

¹⁰³ See CTIA Comments at 39; AT&T Comments at 74-75.

¹⁰⁴ AT&T Comments at 74.

¹⁰⁵ AT&T Comments at 73 (citations omitted); see also Reason Foundation Comments at 9-10 (“DNS is of fundamental importance to the functionality of the Internet, enabling users’ devices, though web browsers, search engines and other tools, to identify and connect to websites and web pages. . . . Eliminating DNS would likely dramatically reduce the value of the entire domain naming system, harming both providers of content and services and users of that content and those services.”).

¹⁰⁶ AT&T Comments at 74-75; see also Farsight Comments at 2 (explaining that “With the Domain Name System, you’re able to easily get to Google by just typing in google.com. Without the Domain Name System you’d have to remember and enter a numeric IPv4 address such as 172.217.7.228, or, even worse, an IPv6 address such as 2607:f8b0:4004:802::2004. This would fundamentally (and negatively) change a broadband Internet user’s online experience.”); Fred Baker Comments at 2; Sandvine Comments at 1; Cox Comments at 11; *Wireline Broadband Classification Order*, 20 FCC Rcd at 14864, para. 15 (“[A]n end user of wireline broadband Internet access service cannot reach a third party’s web site without access to the Domain Nam[e] Service (DNS) capability. . . . The end user therefore receives more than transparent transmission whenever he or she accesses the Internet.”); see also *Brand X*, 545 U.S. at 999; AT&T Comments at 74 (“To find any content on the Internet, they would have to know the IP address of the server where that content is located. Consumers also could not access a web page by clicking on a hypertext link.”); Nominum Reply Comments at 3.

¹⁰⁷ *Brand X*, 545 U.S. at 999; see also AT&T Comments at 75 (quoting *Brand X*, 545 U.S. at 998, 1000).

¹⁰⁸ See, *e.g.*, IEP Comments at 26; Commercial Network Services Comments at 3; Atkins Comments at 1-2; David Ha Comments at 3; Benjamin Kreuter at 8.

¹⁰⁹ See, *e.g.*, Nominum Reply Comments at 4 (“[A]pproximately 97 percent of consumers receive their DNS service through their ISP’s broadband offering. . . . This sky-high adoption of and reliance on the DNS service provided by ISPs, particularly when there are other alternatives on the market, many of which are free, indicates that consumers want and expect their broadband service to include DNS. Much as consumers expect to purchase a car with a steering wheel and tires, consumers expect a turnkey broadband service from their ISPs and that includes DNS services.”).

¹¹⁰ See, *e.g.*, Farsight Comments at 2; Charter Comments at 14-15 (explaining that DNS is more than merely incidental to the broadband internet service that ISPs provide, and that without DNS, broadband Internet access would cease to exist to resemble the seamless information retrieval service to which customers have become accustomed); Sandvine Comments at 2 (“Yes, it is correct that for the overwhelming majority of customers, the ISP is performing the DNS function. It is a rare customer in the United States that knows how to manually change their DNS settings, takes time to do so, and does so on all of their many connected devices.”); AT&T Comments at 74 (asserting that “[v]irtually all consumers today rely on their broadband ISP to include DNS look-up functionality as an integral part of broadband Internet access service” and that “[m]ass-market consumers would find broadband services without DNS utterly useless for accessing the Internet”); Satchell Comments at 26 (“DNS is *very useful* to the customer. The use of names instead of numbers is key to the acceptance of the Web by the general public.

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observe that DNS, as it is used today, provides more than a functionally integrated address-translation capability, but also enables other capabilities critical to providing a functional broadband Internet access service to the consumer, including for example, a variety of underlying network functionality information associated with name service, alternative routing mechanisms, and information distribution.¹¹¹

34. The treatment of similar functions in MFJ precedent bolsters our conclusion.¹¹² In particular, when analyzing ‘gateway’ functionalities by which BOCs would provide end-users with access to third party information services, the MFJ court found that “address translation,” which enabled “the consumer [to] use an abbreviated code or signal . . . in order to access the information service provider” such as through “the translation of a mnemonic code into [a] telephone number,” rendered gateways an information service.¹¹³ The “address translation” gateway function appears highly analogous to the DNS function of broadband Internet access service, which enables end users to use easier-to-remember domain

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Without DNS, the Internet would not be as ubiquitous as it is today.”); *see also* Sandvine Comments at 3 (“ISP DNS servers tend to be superior to 3rd party DNS servers simply because they reside within the ISP network and are distributed much more widely and locally than 3rd party DNS servers, which tend to be centralized in just a few datacenters to serve the entire U.S. As a result, queries to a 3rd party DNS may traverse a large section of the country to get to a 3rd party DNS. As the industry knows, the trend is towards more locally distributed content and services; the closer they are to the end user the better the performance will be.”).

¹¹¹ *See* CenturyLink App. 2, Bronsdon Decl. at 7-8 (asserting that DNS enables other capabilities critical to providing a functional broadband Internet access service to the consumer including for example, a variety of underlying network functionality information such as name service (NS), mail exchange (MX) and service (SRV) records; mechanisms, such as canonical name (CNAME), delegation name (DNAME), and pointer (PTR) records for selecting alternative routes to information; and facilitating information distribution or content delivery systems); Cox Comments at 10, 11; Comcast Comments 15-16; Farsight Comments at 3 (“DNS is widely used as more than ‘just’ an addressing scheme.”).

¹¹² Despite the fact that the telecommunications management exception (and information service definition more broadly) was drawn most directly from the MFJ, the *Title II Order* essentially ignored MFJ precedent when concluding that DNS fell within the statutory telecommunications management exception. *See generally Title II Order*, 30 FCC Rcd at 5765-69, 5770, paras. 365-69, 371; *see also, e.g.*, INCOMPAS Comments at 54-55 (arguing that finding DNS to fall within the telecommunications management exception is “in keeping with *Computer II*”); *cf. id.* at 56 (“[A]s Justice Scalia argued, ‘DNS ‘is scarcely more than routing information, which is expressly excluded from the definition of ‘information service’ by the telecommunications systems management exception set out in the last clause of section 3(24) of the Act.’”); NASUCA Comments at 16; OTI New America Comments at 29-30. In addition, even the *Title II Order*’s limited use of *Computer Inquiries* precedent focused mostly on relatively high-level Commission statements about the general sorts of capabilities that could be basic (or adjunct-to-basic) or drew analogies to specific holdings that are at best ambiguous as to their application to broadband Internet access service. *See, e.g., Title II Order*, 31 FCC Rcd at 5768-69, 5771-72, paras. 367, 373, 375; *see also, e.g.*, Barbara van Schewick and Patrick Leerssen Reply at 29-31 (citing general statements in *Computer Inquiries* precedent regarding “data processing features necessary for the operation of a packet-switched network”).

¹¹³ *U.S. v. West. Elec. Co., Inc.*, 673 F. Supp. 525, 593 & n.307 (D.D.C. 1987) (*MFJ Initial Gateway Decision*), *aff’d in part and rev’d in part on other grounds*, 900 F.3d 283 (D.C. Cir. 1990). We recognize that gateway functionalities and broadband Internet access service are not precisely coextensive in scope. *See, e.g.*, Public Knowledge Reply at 33 (arguing that “broadband internet does not provide, for example, ‘billing management’ for all the edge services that users access, or ‘introductory information content’”). We do, however, find similarities between functionalities such as address translation and storage and retrieval to key functionalities provided by ISPs as part of broadband Internet access service, and we conclude the court found such gateway and similar functionalities independently sufficient to warrant an information service classification under the MFJ. *See, e.g., U.S. v. West. Elec. Co.*, 714 F. Supp. 1, 19-20 (D.D.C. 1988) (*MFJ Gateway/Storage & Retrieval Decision*) (analyzing storage and retrieval separately from other gateway functionalities); *MFJ Initial Gateway Decision*, 673 F. Supp. at 587 n. 275 (observing that the transmission of information services at issue there “involves a number of functions that by any fair reading of the term ‘information services’ would be included in that definition”). *MFJ Initial Gateway Decision*, 673 F. Supp. at 593 & n. 307.

names to initiate access to the associated IP addresses of edge providers. That MFJ precedent, neglected by the *Title II Order*, thus supports our finding that the inclusion of DNS in broadband Internet access service offerings likewise renders that service an information service.¹¹⁴

35. We thus find that the *Title II Order* erred in finding that Domain Name System (DNS) functionalities fell within the telecommunications systems management exception to the definition of “information service.”¹¹⁵ That exception from the statutory information service definition was drawn from the language of the MFJ,¹¹⁶ and was understood as “directed at internal operations, not at services for customers or end users.”¹¹⁷ We interpret the concepts of “management, control, or operation”¹¹⁸ in the telecommunications management exception consistent with that understanding. Applying that interpretation, we find the record reflects that little or nothing in the DNS look-up process is designed to help an ISP “manage” its network; instead, DNS functionalities “provide stored information to *end* users to help them navigate the Internet.”¹¹⁹ As AT&T explains: “When an end user types a domain name into his or her browser and sends a DNS query to an ISP, . . . the ISP . . . converts the human-language domain name into a numerical IP address, and it then conveys that information back to the end user . . . [who] (via his or her browser) thereafter sends a follow-up request for the Internet resources located at that numerical IP address.”¹²⁰ DNS does not merely “manage” a telecommunications service, as some commenters

¹¹⁴ We rely on this analogy between DNS and particular functions classified under pre-1996 Act precedent not because the technologies are identical in all particulars, but because they share the same relevant characteristics for purposes of making a classification decision under the Act. Given the close fit between DNS and the address translation function classified as an information service under the MFJ coupled with the fact that the statutory information service definition (and telecommunications management exception) was drawn more directly from the MFJ, we find the MFJ precedent entitled to more weight than analogies to *Computer Inquiries* precedent. We thus are not persuaded by arguments seeking to analogize DNS to directory assistance, which the Commission classified as “adjunct-to-basic” under the *Computer Inquiries*. See, e.g., OTI New America Comments at 33-34 (“The parallel in telephone service is computer-assisted directory assistance, where a user can find the phone number (like an IP address in BIAS) of a person based on their name (like a domain name in BIAS). This service has long been adjunct-to-basic and did not transform telephone service into an information service. DNS similarly does not direct a classification of BIAS as an information service.”); Barbara van Schewick and Patrick Leerssen Reply at 32-33; Harold Hallikainen Comments at 13; Peha Reclassification Comments at 19; Ben Kreuter Comments at 4; Commercial Network Services Comments at 3; Satchell Comments at 26.

¹¹⁵ *Title II Order*, 30 FCC Rcd at 5765–66, para. 366.

¹¹⁶ The court’s definition of information services excluded capabilities “for the management, control, or operation of a telecommunication system or the management of a telecommunications service.” *MFJ Initial Decision*, 552 F. Supp. at 229. Under the Communications Act, the definition of “information services” includes an identically-worded ‘telecommunications management’ exception. 47 U.S.C. § 153(24). Commission precedent and legislative history likewise recognize that the definition was drawn from the MFJ. See, e.g., *Implementation of the Non-Accounting Safeguards of Section 271 and 272 of the Communications Act of 1934, as amended*, CC Docket No. 96-149, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 21905, 21954, para. 99 (1996) (*Non-Accounting Safeguards Order*); H.R. Conf. Rep. No. 104-458 at 126 (Jan. 31, 1996) (“‘Information service’ and ‘telecommunications’ are defined based on the definition used in the Modification of Final Judgment.”).

¹¹⁷ *United States v. Am. Tel. & Tel. Co.*, 1989 WL 119060, *1 (D.D.C. Sept. 11, 1989) (citing Department of Justice, *United States v. Western Electric Company, Inc., and American Telephone & Telegraph Company; Competitive Impact Statement in Connection With Proposed Modification of Final Judgment*, Notice, 47 Fed. Reg. 7170, 7176 (Feb. 17, 1982) (*DOJ Competitive Impact Statement*)).

¹¹⁸ Although the exception is worded in terms of “management, control, or operation,” for convenience here we refer to those collectively at times as “management” or the like.

¹¹⁹ AT&T Comments at 77-78; see also T-Mobile Comments at 14; Charter Comments at 13-14; CTIA Comments at 39-40; Harold Hallikainen Comments at 8; Verizon Comments at 58; AT&T Reply at 70-71; Cox Reply at 6-7; CTIA Reply at 28-30; NCTA Reply at 9-10; Comcast Comments at 19.

¹²⁰ AT&T Comments at 78.

assert,¹²¹ but rather is a function that is useful and essential to providing Internet access for the ordinary consumer.¹²² We are persuaded that “[w]ere DNS simply a management function, this would not be the case.”¹²³ Comparing functions that *would* fall within the exception illustrates our conclusion. For example, in contrast to DNS interaction with users and their applications,¹²⁴ “non-user, management-only protocols might include things such as Simple Network Management Protocol (SNMP), Network Control Protocol (NETCONF), or things such as DOCSIS bootfiles for controlling the configuration of cable modems.”¹²⁵ These protocols support services that manage the network independent of the transmission of information initiated by a user.¹²⁶

36. The *Title II Order* drew erroneous conclusions from *Computer Inquiries* precedent and too quickly rejected objections to its treatment of DNS as meeting the telecommunications management exception.¹²⁷ Under the *Computer Inquiries* framework, the Commission held that some capabilities “may properly be associated with basic [common carrier] service without changing its nature, or with an enhanced service without changing the classification of the latter as unregulated under Title II of the Act.”¹²⁸ These commonly came to be known as “adjunct” capabilities.¹²⁹ The Commission has held that functions it had classified as “adjunct-to-basic” under the *Computer Inquiries* framework will fall within the statutory telecommunications management exception to the information service definition.¹³⁰ Drawing loose analogies to certain functions described as adjunct-to-basic under Commission precedent, the *Title II Order* held that DNS fell within the telecommunications management exception.

37. The *Title II Order* incorrectly assumed that so long as a functionality was, in part, used in a manner that could be viewed as adjunct-to-basic, it necessarily was adjunct-to-basic regardless of what

¹²¹ CDT Comments at 8; ITIF Comments at 13; New Media Rights Comments at 4-5 (“[B]ecause these services [like DNS, DHCP, caching, and others] are necessary to route, manage, or otherwise use BIAS, they fall under the management exception embodied in the definition of information service.” (citations omitted)); AARP Comments at 85; WGAW Comments at 8.

¹²² Nominum Comments at 5 (asserting that the “features of DNS-based services are focused on enhancing the consumer’s Internet experience and go well-beyond what is needed for the management and control of telecommunications system”).

¹²³ Sandvine Comments at 5; *see also* USTelecom Comments at 35 (asserting that DNS “capabilities uniformly permit or enhance the use of the World Wide Web; they do not manage a telecommunications system or service”).

¹²⁴ *See Domain Name system (DNS) Parameters*, <https://www.iana.org/assignments/dns-parameters/dns-parameters.xhtml> (last visited Oct. 12, 2017) (for full set of information types supported by the DNS protocol).

¹²⁵ Sandvine Comments at 5.

¹²⁶ Other functions that would fall into the telecommunications systems management exception might include information systems for account management and billing, configuration management, and the monitoring of failures and other state information, and to keep track of which addresses are reachable through each of the interconnected neighboring networks. *See* Peha Reclassification Comments at 20.

¹²⁷ These same shortcomings are present in the *Title II Order*’s analysis of caching, as well.

¹²⁸ *Communications Protocols Under Section 64.702 of the Commission’s Rules and Regulations*, GN Docket No. 80-756, Memorandum Opinion, Order, and Statement of Principles, 95 FCC 2d 584, 591, para. 15 (1983) (*Protocols Order*).

¹²⁹ *See, e.g., North American Telecommunications Association Petition for Declaratory Ruling Under §64.702 of the Commission’s Rules Regarding the Integration of Centrex, Enhanced Services, and Customer Premises Equipment*, Memorandum Opinion and Order, 101 FCC 2d 349, 359, para. 24 (1985) (*NATA Centrex Order*) (“The computer processing services we recognized as permissible adjuncts to basic service are services which might indeed fall within possible literal readings of our definition of an enhanced service, but which are clearly ‘basic’ in purpose and use.”).

¹³⁰ *See, e.g., Non-Accounting Safeguards Order*, 11 FCC Rcd at 21958, para. 107.

the functionality otherwise accomplished.¹³¹ Although confronted with claims that DNS is, in significant part, designed to be useful to end-users rather than providers, the *Title II Order* nonetheless decided that it fell within the telecommunications management exception.¹³² While conceding that DNS, as well as other functions like caching, “do provide a benefit to subscribers,”¹³³ the *Title II Order* held that they nonetheless fell within the telecommunications management exception because it found some aspect of their operation also was of use to providers in managing their networks.¹³⁴ This expansive view of the telecommunications management exception transposes the analysis of the approach embodied in the MFJ and *Computer Inquiries*; under that approach, the analysis would instead begin with the broad language of the information service or enhanced service definitions, generally excluding particular functions only if the purpose served clearly was narrowly focused on facilitating bare transmission. The Commission and the courts made clear the narrow scope of the ‘adjunct-to-basic’ or ‘telecommunications management’ categories in numerous decisions in many different contexts.¹³⁵

¹³¹ See, e.g., *Title II Order*, 30 FCC Rcd at 5766-68, paras. 367-68. In addition to the MFJ precedent, Bureau precedent similarly has observed that adjunct-to-basic capabilities do not include functions “useful to end users, rather than carriers.” *Petitions for Forbearance from the Application of Section 272 of the Communications Act of 1934, As Amended, to Certain Activities, Bell Operating Companies*, CC Docket No. 96-149, Memorandum Opinion and Order, 13 FCC Rcd 2627, 2639, para. 18 (Com. Car. Bur. 1998) (*272 Forbearance Order*). Given the lack of ambiguity in the MFJ’s holding in this regard, we find it more reasonable to interpret this precedent to call for a similar requirement that “adjunct to basic” services do not include services primarily useful to end-users, and reject arguments to the contrary. See, e.g., Public Knowledge Reply at 37 (“The ‘rule’ AT&T attempts to extract from this is simply another paragraph of the telecommunications management exception which, applied to DNS, still does not lead to the result it wants.”). In any case, because the definition of “information service,” including the telecommunications management exception, was drawn from the MFJ, the MFJ precedent alone would be entitled to significant weight in interpreting the scope of the telecommunications management exception.

¹³² *Title II Order*, 30 FCC Rcd at 5768, para. 368 & n.1037. The same is true of the *Title II Order*’s treatment of caching. *Id.* at 5768, para. 368 n.1037.

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ See, e.g., *Computer III Phase I Order*, 104 FCC 2d at 967-68, para. 10 (“[d]ata processing, computer memory or storage, and switching techniques can be components of a basic service if they are used *solely* to facilitate the movement of information” (emphasis added)); *NATA Centrex Order*, 101 FCC 2d at 360, para. 26 (speed dialing and call forwarding “*serve but one purpose*: facilitating establishment of a transmission path over which a telephone call may be completed” (emphasis added)); *id.* at 360, para. 26 (directory assistance that “provides *only* that information about another subscriber’s telephone number which is *necessary to allow use of the network to place a call* to that other subscriber . . . may be offered as an adjunct to basic service” while “an offering of access to a data base for most other purposes is the offering of an enhanced service” (emphasis added)); *Computer II Final Decision*, 77 FCC 2d 384, 419, para. 93 (1980) (“[a] basic transmission service is one that is limited to the common carrier offering of transmission capacity for the movement of information”); *id.* at 420-21, para. 97 (“[a]n enhanced service is any offering over the telecommunications network which is more than a basic transmission service”); *id.* at 421, para. 98 (“computer processing applications such as call forwarding, speed calling, directory assistance, itemized billing, traffic management studies, voice encryption, etc. . . . are ancillary services directly related to [the] provision” of basic telephone service “that do not raise questions about the fundamental communications or data processing nature of a given service” (internal quotation marks omitted)); *MFJ Initial Gateway Decision*, 673 F. Supp. at 587 n.275 (rejecting arguments that transmission of information services fall outside the definition of information services by focusing in the first instance on “the breadth of the information services definition”); see also *DOJ Competitive Impact Statement*, 47 Fed. Reg. at 7176 (telecommunications services may “include related functions” that are “essential to such transmission,” so, for example, where a function “constitutes an inherent aspect of the technology used in transmission and switching” it would not result in the service being classified an information service under the MFJ). Notably, the focus remains on the purpose or use of the specific function in question and not merely whether the resulting service, as a whole, is useful to end-users. See, e.g., Public Knowledge Reply at 37 (“To maintain, as AT&T does, that something that is ‘useful’ to an end user cannot fall

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38. The *Title II Order* also put misplaced reliance on *Computer Inquiries* adjunct-to-basic precedent from the traditional telephone service context as comparison when evaluating broadband Internet access service functionalities.¹³⁶ Because broadband Internet access service was not directly addressed in pre-1996 Act *Computer Inquiries* and MFJ precedent, analogies to functions that were classified under that precedent must account for potentially distinguishing characteristics not only in terms of technical details but also in terms of the regulatory backdrop. The Communications Act enunciates a policy for the Internet that distinguishes broadband Internet access from legacy services like traditional telephone service. The Act explains that it is federal policy “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.”¹³⁷ The application of potentially ambiguous precedent to broadband Internet access service should be informed by how well—or how poorly—it advances that deregulatory statutory policy.

39. The regulatory history of traditional telephone service also informs our understanding of *Computer Inquiries* precedent, further distinguishing it from broadband Internet access service. Given the long history of common carriage offering of that service by the time of the *Computer Inquiries*, it is understandable that some precedent started with a presumption that the underlying service was a “basic service.”¹³⁸ But similar assumptions would not be warranted in the case of services other than traditional telephone service for which there was no similar longstanding history of common carriage. Thus, not only did the *Title II Order* rely on specific holdings that are at best ambiguous in their analogy to technical characteristics of broadband Internet access service, but it failed to adequately appreciate key regulatory distinctions between traditional telephone service and broadband Internet access service.¹³⁹

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under the management exception is absurd, as the entire purpose of broadband is to be useful to end users, as is the entire purpose of telephony.”).

¹³⁶ See, e.g., *Title II Order*, 30 FCC Rcd at 5768-69, para. 369.

¹³⁷ 47 U.S.C. § 230(b)(2).

¹³⁸ See, e.g., *NATA Centrex Order*, 101 FCC 2d at 358, para. 23 (“[W]e did not intend that our definition of enhanced services should be interpreted as forbidding carriers to use the processing and storage capabilities within their networks to offer optional tariffed features which facilitate use of traditional telephone service. Accordingly, the Final Decision carried forward from the Tentative Decision our recognition that there are computer processing services which may be offered in conjunction with basic telephone service.”); *Computer II Final Decision*, 77 FCC 2d at 421, para. 98 (“The intent was to recognize that while POTS is a basic service, there are ancillary services directly related to its provision that do not raise questions about the fundamental communications or data processing nature of a given service. Accordingly, we are not here foreclosing telephone companies from providing to consumers optional services to facilitate their use of traditional telephone service.”); *US West Communications Petition for Computer III Waiver*, Docket No. 90-623, Order, 11 FCC Rcd 1195, 1199, para. 27 (Com. Car. Bur. 1995) (“[T]he Commission held in the NATA Centrex Order that carriers may use some of the processing and storage capabilities within their networks to offer optional tariffed features as ‘adjunct to basic’ services, if the services: (1) are intended to facilitate the use of traditional telephone service; and (2) do not alter the fundamental character of telephone service.”); cf., e.g., *AT&T Corp. Petition for Declaratory Ruling Regarding Enhanced Prepaid Calling Card Services, Regulation of Prepaid Calling Card Services*, WC Docket Nos. 03-133, 05-68, Order and Notice of Proposed Rulemaking, 20 FCC Rcd 4826, 4830-31, paras. 15-16 (2005) (*AT&T Calling Card Order*) (AT&T’s prepaid calling card service involves “no ‘offer’ to the customer of anything other than telephone service, nor is the customer provided with the ‘capability’ to do anything other than make a telephone call,” and relying on *Computer Inquiries* precedent the Commission found that unprompted advertisements inserted by AT&T were adjunct-to-basic and thus leave the service a “telecommunications service” under the 1996 Act definitions.).

¹³⁹ *Title II Order*, 30 FCC Rcd at 5768-69, para. 369 (summarily asserting that the traditional telephone service context of its cited precedent “provides no basis to discard the logic of that analysis in the broadband context”); see also, e.g., ACLU/EFF Reply at 4 (“If the NATA Centrex Order had concerned Internet access, it would doubtless have read ‘offering of access to a data base for purposes of obtaining *Internet* numbers’ is an ‘adjunct to basic *Internet* service.’”). Thus, for example, the fact that the adjunct-to-basic classification of directory assistance arose

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40. *Caching.* We also conclude that caching, a functionally integrated information processing component of broadband Internet access service, provides the capability to perform functions that fall within the information service definition.¹⁴⁰ Caching does much more than simply enable the user to obtain more rapid retrieval of information through the network;¹⁴¹ caching depends on complex algorithms to determine what information to store where and in what format.¹⁴² This requires extensive information processing, storing, retrieving, and transforming for much of the most popular content on the Internet,¹⁴³ and as such, caching involves storing and retrieving capabilities required by the “information service” definition.¹⁴⁴ The Court affirmed this view in *Brand X*, finding “reasonable” the “Commission’s understanding” 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,” which constitutes “the ‘capability for . . . acquiring, [storing] . . . retrieving [and] utilizing information.’”¹⁴⁵

41. We find that ISP-provided caching does not merely “manage” an ISP’s broadband Internet access service and underlying network, it enables and enhances consumers’ access to and use of information online.¹⁴⁶ The record shows that caching can be realized as part of a service, such as DNS, which is predominantly to the benefit of the user (“DNS caching”).¹⁴⁷ Caching can also be realized in terms of content that can be accumulated by the ISP through non-confidential (i.e., non-encryption)¹⁴⁸

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in the traditional telephone context likewise persuades us to give it relatively little weight here as an analogy to DNS, and we reject arguments to the contrary. *See, e.g.*, OTI New America Comments at 33-34; Barbara van Schewick and Patrick Leerssen Reply at 32-33.

¹⁴⁰ *See* Comcast Comments at 15-16; ITIF Comments at 13; Charter Comments at 14.

¹⁴¹ ITIF Comments at 13.

¹⁴² CTIA Comments at 37; *see* AT&T Comments at 75-76 (“ISPs routinely arrange for the use of caching to enhance their customers’ ability to acquire information.”); AT&T Feb. 18, 2015 *Ex Parte* Letter at 4.

¹⁴³ ITIF Comments at 13.

¹⁴⁴ *See* AT&T Comments at 75-76 (“The prevalence of caching confirms . . . that broadband Internet access falls within the scope of ‘information service’ (because by definition it consists of ‘storing’ and ‘retrieving’ information.”). As such, we reject commenter assertions to the contrary. *See, e.g.*, Public Knowledge/Common Cause Comments at 48-49.

¹⁴⁵ *Brand X*, 545 U.S. at 999-1000.

¹⁴⁶ *See* Comcast Comments at 19; Verizon Comments at 58; CTIA Comments at 36-37 (“Caching’s capabilities enhance ‘users’ quality of experience and add[] value to their broadband Internet access service,” Rysavy explains, ‘by providing faster and more dependable service.’” (citations omitted)). Reason Foundation Comments at 10; Charter Comments at 14-15.

¹⁴⁷ *See Stevens Report*, 13 FCC Rcd at 11537-38, para. 76; *Cable Modem Order*, 17 FCC Rcd at 4809-10, para. 17 n.76 (“Caching is similarly a behind-the-scenes service that speeds content delivery and thus improves consumers’ online experience”).

¹⁴⁸ We disagree with assertions in record that suggest that ISP-provided caching is not a vital part of broadband Internet access service offerings, as it may be stymied by the use of HTTPS encryption. *See* ACLU/EFF Reply (stating “ISP caching is significantly stymied by the use of HTTPS encryption, which has increased from just 2% in 2010 to more than 50% in 2017”) (citations omitted); *see also* Public Knowledge/Common Cause Comments at 13 (“HTTP Secure (“HTTPS”) accounted for 49% of web traffic in February 2016, as compared to 13% in April 2014” (citing Peter Swire et al., *Online Privacy and ISPs: ISP Access to Consumer Data is Limited and Often Less than Access by Others*, The Inst. for Info. Sec. & Privacy at Ga. Tech at 10 (Feb. 29, 2016) (white paper), http://www.iisp.gatech.edu/sites/default/files/images/online_privacy_and_isps.pdf)). Recently, the Commission concluded that encryption is not yet ubiquitous and that “truly pervasive encryption on the Internet is still a long way off, and that many sites still do not encrypt.” *Protecting the Privacy of Customers of Broadband and Other Telecommunications Services*, Report and Order, 31 FCC Rcd 13911, 13922, para. 34 (2016) (*2016 Privacy Order*). In the same proceeding, the Commission also found that DNS queries are almost never encrypted. *Id.* at 13921,

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retrieval of information from websites (“Web caching”). In this case, the user benefits from a rapid retrieval of information from a local cache or repository of information while the ISP benefits from less bandwidth resources used in the retrieval of data from one or more destinations. DNS and Web caching are functions provided as part and parcel of the broadband Internet access service.

42. When ISPs cache content from across the Internet, they are not performing functions, like switching, that are instrumental to pure transmission, but instead storing third party content they select in servers in their own networks to enhance access to information.¹⁴⁹ The record reflects that without caching, broadband Internet access service would be a significantly inferior experience for the consumer, particularly for customers in remote areas, requiring additional time and network capacity for retrieval of information from the Internet.¹⁵⁰ As such, we conclude that the *Title II Order* erred in incorrectly categorizing caching as falling within the telecommunications system management exception to the definition of “information service.”

43. In addition, the *Title II Order*’s failure to consider applicable MFJ precedent led to mistaken analogies when it concluded that caching fell within the statutory telecommunications management exception.¹⁵¹ In relevant precedent, the MFJ court observed that the information service restriction generally “prohibits the [BOCs] from ‘storing’ and ‘retrieving’ information,” but identified “quite distinct settings in which storage capabilities of the [BOCs] could be used in the information services market.”¹⁵² One of the categories of storage and retrieval identified by the court appears highly comparable to caching. That category involved BOC provision of “storage space in their gateways for databases created by others” such as “information service providers and end users,” making “communication more efficient by moving information closer to the end user, thereby reducing transmission costs.”¹⁵³ This functionality—recognized as an information service by the MFJ court—appears highly analogous to caching, and lends historical support to our view that the caching functionality within broadband Internet access service is best understood as rendering broadband Internet access service an information service.¹⁵⁴

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n.39. While we recognize that the *2016 Privacy Order* and the rules adopted therein have been nullified under the Congressional Review Act, we nonetheless find the Commission’s analysis of the record in that proceeding on this point relevant.

¹⁴⁹ See USTelecom Comments at 34-35.

¹⁵⁰ See, e.g., NCTA Comments at 15; *Brand X*, 545 U.S. at 999 (noting that caching “obviates the need for the end user to download anew information from third-party Web sites each time the consumer attempts to access them, thereby increasing the speed of information retrieval”); Charter Comments at 14-15 (explaining that without caching, customers would experience greater delays in retrieving such information if and when they find it); Verizon Comments at 58 (explaining that caching is a behind-the-scenes service that speeds content delivery and thus improves consumers’ online experience, and for that reason, is not a network management process but instead a valuable component of the information service that ISPs offer to consumers). For these reasons, we reject arguments to the contrary. See, e.g., Public Knowledge Comments at 49 (Caching operates “not just for the benefit of the end user, who may experience faster transmission, but also for the benefit of the network provider, reducing the resource demands and traffic loads of their network”); Scott Jordan Reply at 12-13 (“[I]f a broadband Internet access service provider chooses to implement caching inside its network, and not as a content delivery network service offered to edge providers, then it is doing so in order to manage its broadband Internet access service.”).

¹⁵¹ See generally *Title II Order*, 30 FCC Rcd at 5770-71, para. 372; see also, e.g., INCOMPAS Comments at 54-55 (arguing that finding caching to fall within the telecommunications management exception is “in keeping with *Computer II*”).

¹⁵² *MFJ Gateway/Storage & Retrieval Decision*, 714 F. Supp. at 18 n.73, 19.

¹⁵³ *Id.* at 19.

¹⁵⁴ The first category the court identified was “very short term storage,” including, among other things, “the basic packet switching function,” which “involves the breakdown of data or voice communications into small bits of

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44. Ignoring that MFJ precedent, the *Title II Order* erred in seeking to analogize caching to “store and forward technology [used] in routing messages through the network as part of a basic service” mentioned in the *Computer II Final Decision*.¹⁵⁵ In fact, consistent with the MFJ court’s identification of distinct uses of storage and forwarding, the cited portion of the *Computer II Final Decision* recognized that “the kind of enhanced store and forward services that can be offered are many and varied.”¹⁵⁶ In that regard, the *Computer II Final Decision* distinguished “[t]he offering of store and forward services” from “store and forward technology,” explaining that “[m]essage or packet switching, for example, is a store and forward technology that may be employed in providing basic service.”¹⁵⁷ Reading that discussion in full context and in harmony with subsequent MFJ precedent, the reference in the *Computer II Final Decision* to “store and forward technology” appears better understood as mirroring a category of storage and retrieval of information that the MFJ court suggested was not an information service—in particular, “the basic packet switching function, . . . [which] involves the breakdown of data or voice communications into small bits of information that are then collected and transmitted between nodes.”¹⁵⁸ That category of activity relied upon in the *Title II Order* thus actually appears to be barely or not at all analogous to caching. We instead find more persuasive the MFJ court’s information service treatment of BOC provision of “storage space in their gateways for databases created by others” such as “information service providers and end users”—a distinct category of storage and retrieval functionality that is a close fit to caching.¹⁵⁹

b. ISPs’ Service Offerings Inextricably Intertwine Information Processing Capabilities with Transmission

45. Having established that broadband Internet access service has the information processing capabilities outlined in the definition of “information service,” the relevant inquiry is whether ISPs’ broadband Internet access service offerings make available information processing technology inextricably intertwined with transmission. Below we examine both how consumers perceive the offer of broadband Internet access service, as well as the nature of the service actually offered by ISPs, and conclude that ISPs are best understood as offering a service that inextricably intertwines the information processing capabilities described above and transmission.

46. We begin by considering the ordinary customer’s perception of the ISP’s offer of broadband Internet access service. As *Brand X* explained, “[i]t is common usage to describe what a company ‘offers’ to a consumer as what the consumer perceives to be the integrated finished product.”¹⁶⁰ ISPs generally market and provide information processing capabilities and transmission capability

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information that are then collected and transmitted between nodes,” involving “constant storage, error checking, and retransmission, as required for accurate transmission.” *Id.* at 19. Although the court was not entirely clear, it seemed to suggest that such functions were not information services under the MFJ. This category appears to bear little similarity to caching, however. The third category of ‘storage and retrieval’ information service functions identified by the court would include the BOC’s provision of “voice messaging, voice storage and retrieval, and electronic mail.” *Id.* at 19-20 (footnotes omitted). Because that category does not appear as analogous to caching as the category identified by the court and described above, nor was it relied upon in the *Title II Order*’s discussion of caching, we do not focus on that third category in our discussion here.

¹⁵⁵ *Title II Order*, 30 FCC Rcd at 5770-71, para. 372, n.1052 (quoting *Computer II Final Decision*, 77 FCC 2d at 420-21, para. 97, n.35); see also, e.g., Public Knowledge/Common Cause Comments at 61 (citing “message or packet switching” functions).

¹⁵⁶ *Computer II Final Decision*, 77 FCC 2d 384, 420-21, para. 97 (1980).

¹⁵⁷ *Id.* at 420-21, para. 97, n.35.

¹⁵⁸ *MFJ Gateway/Storage & Retrieval Decision*, 714 F.Supp. at 19.

¹⁵⁹ *Id.*

¹⁶⁰ *Brand X*, 545 U.S. at 990.

together as a single service.¹⁶¹ Therefore, it is not surprising that consumers perceive the offer of broadband Internet access service to include more than mere transmission, and that customers want and pay for functionalities that go beyond mere transmission.¹⁶² As Cox explains, “[w]hile consumers also place significant weight on obtaining a reliable and fast Internet connection, they view those attributes as a means of enabling these capabilities to interact with information online, not as ends in and of themselves.”¹⁶³ Indeed, record evidence confirms that consumers highly value the capabilities their ISPs offer to acquire information from websites, utilize information on the Internet, retrieve such information, and otherwise process such information.¹⁶⁴

47. This view also accords with the Commission’s historical understanding that “[e]nd users subscribing to . . . broadband Internet access service expect to receive (and pay for) a finished, functionally integrated service that provides access to the Internet. End users do not expect to receive (or pay for) two distinct services—both Internet access service and a distinct transmission service, for example.”¹⁶⁵ While the *Title II Order* dwells at length on the prominence of transmission speed in ISP marketing, it makes no effort to compare that emphasis to historical practice.¹⁶⁶ In fact, ISPs have been

¹⁶¹ See ACA Comments at 52 (“ACA members confirm that their marketing of broadband Internet access service has not undergone substantial change since the inception of the service and that it has always emphasized both the always-on capabilities that broadband Internet access would afford subscribers, including the ability to retrieve and utilize the panoply of available Internet content and applications, and the fast speeds at which they would be able to stream, download and upload Internet content.”).

¹⁶² See, e.g., Comcast Comments at 23 (“[M]any of the information components of BIAS are now taken for granted as being included—and expected to be included—in the offered service.”); Comcast Reply Comment at 6 (“[M]ost consumers are aware of integrated service features offered by their BIAS provider—such as online storage, parental controls, and e-mail. . . . Not only do consumers expect their BIAS provider(s) to offer such capabilities over fast and reliable Internet connections, but a significant majority view the functions enabled by these capabilities—such as surfing the web, streaming media, or shopping online—as ‘very’ important.”); Free State Foundation Comments at 15 (“[E]nd user consumers perceive, even if tacitly, that broadband ISPs are offering a functionally integrated service. They do not perceive that they are purchasing transmission as a standalone service.”).

¹⁶³ Cox Reply at 5; see also Letter from Diane Holland, Vice President, USTelecom and Rick Chessen, Senior Vice President, NCTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, Attach. A at 4-5 (filed Aug. 28, 2017) (USTelecom and NCTA *Ex Parte*).

¹⁶⁴ See MSI Survey Report at 4; see also NCTA Reply at 7-8 (“[A] recent survey of consumers confirms that they highly value the capabilities their BIAS providers offer to ‘acquire information’ from internet websites, ‘utilize information’ on the internet, ‘retrieve’ such information,’ [sic] and otherwise ‘process’ such information. Not only do consumers expect their BIAS providers to offer such capabilities, but the vast majority view the functions they enable—such as the ability to search for and find information on the web, to send and receive emails, to surf the Internet, and to shop online—as ‘must have.’”); Cox Reply at 4-5 (similar); USTelecom Reply at 7-11 (“[W]e wanted to confirm (or debunk), based on objective, data-driven analysis, the Commission’s assertion that consumers understand their BIAS to function only as a ‘transmission platform’ that they can use to access third-party content, applications and services of their choosing. It turns out that consumers expect their BIAS to offer far more than just a pathway to the Internet.”); Letter from Diane Holland, Vice President, Law & Policy, USTelecom, and Rick Chessen, Sr. Vice President, Law & Regulatory Policy, NCTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, Attach. A (filed Aug. 28, 2017) (attaching the results of the consumer survey).

¹⁶⁵ *Wireline Broadband Classification Order*, 20 FCC Rcd at 14910-11, para. 104; see also, e.g., *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5913, para. 31 (same); *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4822-23, para. 38 (“Consistent with the analysis in the [Stevens Report], we conclude that the classification of cable modem service turns on the nature of the functions that the end user is offered. We find that cable modem service is an offering of Internet access service, which combines the transmission of data with computer processing, information provision, and computer interactivity, enabling end users to run a variety of applications.”).

¹⁶⁶ See *Title II Order*, 30 FCC Rcd 5601, 5755-57, paras. 351-54; see also *US Telecom Ass’n v. FCC*, 825 F.3d 674,699, 704-05 (discussing the *Title II Order*’s analysis of marketing); AARP Comments at 83 (discussing certain

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highlighting transmission speed in their marketing materials since long before the *Title II Order*.¹⁶⁷ The very first report on advanced telecommunication capability pursuant to section 706(b) of the 1996 Act, released in 1999, cited ISPs' marketing of their Internet access service speed.¹⁶⁸ ISPs' inclusion of speed information in their marketing also was acknowledged by the Court in *Brand X*, which nonetheless upheld the Commission's information service classification as reasonable.¹⁶⁹ Indeed, consideration of ISP marketing practices has been part of the backdrop of all of the Commission's decisions classifying broadband Internet access service as an information service and thus cannot justify a departure from the historical classification of broadband Internet access service as an information service.

48. The *Title II Order*'s reliance on ISP marketing also assumes that it provides a complete picture of what consumers perceive as the finished product. First, the record reflects that ISP marketing of broadband encompasses features beyond speed and reliability.¹⁷⁰ Further, because all broadband Internet access services rely on DNS and commonly also rely on caching by ISPs, to the extent that those capabilities, in themselves, do not provide a point of differentiation among services or providers, it would be unsurprising that ISPs did not feature them prominently in their marketing or advertising, particularly to audiences already familiar with broadband Internet access service generally.¹⁷¹ Indeed, speed and

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ISPs' marketing statements); Free Press Comments at 42 (similar); Public Knowledge Comments, App. A (similar); OTI New America Comments at 27 ("BIAS providers today market their services as an access path to internet based content. BIAS providers distinguish, and indeed consumers compare, their services based on factors such as speed."); Vimeo Comments at 28 (discussing certain ISPs' marketing statements); EFF Comments at 17-19 ("Today's BIAS providers, while they may offer email, are not marketed or perceived as providers of content, storage, data processing, or other information services. Indeed, unlike the America Online of two decades ago, today's BIAS providers advertise the speed and reliability of their data transmission, not the information services they offer."); Peha Reclassification Comments at 5 (asserting that ISPs market their service by bragging about the quality of IP packet transfer, rather than the quality of information services such as proprietary content or email); cf. AARP Comments at 91 ("Consumers have tools available, such as bandwidth testing meters, that enable them to understand what download speeds their service provider delivers."); *id.* at 94 ("Bandwidth is what matters to consumers of broadband Internet access service.").

¹⁶⁷ See, e.g., USTelecom Comments at 32-33; Verizon Comments at 57; CenturyLink Comments at 27 ("[T]he relative prominence of speed as a focus in CenturyLink marketing efforts has not changed materially over time since 2000."); ACA Comments at 41, n.126 (affirming that ACA members "had not fundamentally changed the way in which they advertise their broadband Internet access service—they have always emphasized both its enhanced functionalities and fast speeds").

¹⁶⁸ See, e.g., *Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, CC Docket No. 98-146, Report, 14 FCC Rcd 2398, 2431, Chart 2 (1999).

¹⁶⁹ Cf., e.g., *Brand X*, 545 U.S. at 1007 n.1 (Scalia, J., dissenting) (arguing that just as when a "pizzeria advertises quick delivery as one of its advantages over competitors" that also "is the case with cable broadband"); *id.* at 991-92 (rejecting the dissent's pizzeria analogy—along with another analogy involving dogs and dog leashes—and observing that "unlike the transmission component of Internet service, delivery service and dog leashes are not integral components of the finished products (pizzas and pet dogs)").

¹⁷⁰ The record reflects that current ISP marketing of broadband Internet access services does not exclusively focus on speed and reliability. See, e.g., CenturyLink Comments at 26; CenturyLink Comments Appendix 1, Declaration of Dane Folster at 2 ("CenturyLink promotes Wi-Fi capabilities, 24/7 technical support, and a free Norton AntiVirus solution and other features of our BIA service."); Cox Comments at 11 ("Cox's broadband marketing focuses not only on transmission speeds but also on advanced connectivity features, including the wall-to-wall range of Cox's 'Panoramic WiFi,' Cox Security Suite Plus, WebMail, and SpamBlocker services.").

¹⁷¹ See, e.g., Comcast Comments at 23 ("[M]any of the information components of BIAS are now taken for granted as being included—and expected to be included—in the offered service, so there is no reason to advertise them."); ACA Comments at 41, n.126 ("Indicating that any greater emphasis on speed in recent years was a reflection of the public's growing understanding of the service and the faster speeds their networks could obtain."); *Sours v. General Motors Co.*, 717 F.2d 1511 (6th Cir. 1983) (holding that in a products liability case, lack of advertising about car safety in accidents—which had been present in an earlier products liability case involving off-road vehicles—did not

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reliability are not exclusive to telecommunications services; rather, the record reflects that speed and reliability are crucial attributes of an information service.¹⁷² Consequently, the mere fact that broadband Internet access service marketing often focuses on characteristics, such as transmission speed, by which services and providers can be differentiated sheds little to no light on whether consumers perceive broadband Internet access service as inextricably intertwining that data transmission with information service capabilities.¹⁷³

49. Separate and distinct from our finding that an ISP “offers” an information service from

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preclude findings regarding consumer expectations of the cars at issue because “[t]he automobile is hardly a new product,” and “[t]he expectations of ordinary automobile owners with respect to foreseeable accidents in the course of everyday on-road vehicle operation probably are easier to define than the adventurers’ expectations concerning inherently hazardous off-road performance in open jeeps, advertising notwithstanding”); *Cunningham v. Mitsubishi Motors Corp.*, 1993 WL 1367436, *4 (S.D. Ohio 1993) (holding that in a products liability case, the “Court does not agree with Defendants’ contention that the absence of advertising regarding the safety of their seat belts prevents the use of the consumer expectation test” where “consumers have had ample opportunity to develop expectations regarding the safety of seat belts”).

¹⁷² See, e.g., Verizon Comments at 57-58 (“Advertising the speed and reliability with which [] data is transferred is not remotely inconsistent with broadband Internet service being an information service—service providers are simply informing consumers how they can use the speed and reliability of their connection *for the purpose of* ‘generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information.’”); Comcast Comments at 24 (“Even Justice Scalia remarked in his dissent in *Brand X* that broadband providers ‘advertise[] quick delivery as one of [their] advantages over competitors.’ In any event, BIAS providers routinely include more than just ‘speed’ claims in their advertisements. And ‘there is little reason to think consumers might want a fast or reliable ‘transmission . . . of information’ but not a fast or reliable ‘capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information.’”). As such, we reject assertions that speed and reliability are only characteristics of telecommunications services. See, e.g., Peha Reclassification at 13 (asserting that speed and reliability are not characteristics of an information service, but rather characteristics of a telecommunications service).

¹⁷³ Neither the discussion of the consumer’s perspective by Justice Scalia nor that in the *Title II Order* identifies good reasons to depart from the Commission’s prior understanding that broadband Internet access is a single, integrated information service. Justice Scalia contended that how customers perceive cable modem service is best understood by considering the services for which it would be a substitute—in his view at the time, dial-up Internet access and digital subscriber line (DSL) service over telephone networks. *Brand X*, 545 U.S. at 1008-09. However, dial-up Internet access has substantially diminished in marketplace significance in the subsequent years. See, e.g., *Inquiry Concerning the Deployment of Advanced Telecommunications Capability To All Americans In A Reasonable and Timely Fashion, and Possible Steps To Accelerate Such Deployment Pursuant To Section 706 of the Telecommunications Act of 1996, As Amended By the Broadband Data Improvement Act*, GN Docket No. 16-245, Twelfth Broadband Progress Notice of Inquiry, 31 FCC Rcd 9140, 9171, Table 1, n.181 (2016) (*Twelfth Section 706 NOI*) (“Based upon households with Internet services at home, NTIA reports 61 percent of households have mobile Internet services, 76 percent have wired Internet services, 3 percent have satellite Internet services and 0.7 percent have dial-up Internet services.”); AT&T Comments at 84, n.124 (“[T]he virtual disappearance of dial-up (in which separate companies provided Internet access and last-mile transmission) has made it even *less* likely that broadband consumers would perceive two different services rather than one”). In addition, the legal compulsion for facilities-based carriers to offer broadband transmission on a common carrier basis was eliminated in 2005. See, e.g., *Wireline Broadband Classification Order*, 20 FCC Rcd at 14872-903, paras. 32-95. Fixed and mobile wireless broadband Internet access service have grown to play a much more prominent role in the broadband Internet access service marketplace, along with satellite broadband Internet access service, none of which ever were under a legal compulsion to offer broadband transmission on a common carrier basis—nor, prior to the *Title II Order*, were they interpreted as voluntarily doing so. See, e.g., *Twelfth Section 706 NOI*, 31 FCC Rcd at 9171, Table 1, n.181. Consequently, whatever might have been arguable at the time of *Brand X*, the service offerings in the marketplace as it developed thereafter provide no reason to expect that consumers “inevitabl[y]” would view broadband Internet access service as involving “*both* computing functionality *and* the physical pipe” as separate offerings based on comparisons to the likely alternatives. *Brand X*, 545 U.S. at 1009 (Scalia, J., dissenting).

the consumer's perspective, we find that as a factual matter, ISPs offer a single, inextricably intertwined information service. The record reflects that information processes must be combined with transmission in order for broadband Internet access service to work,¹⁷⁴ and it is the combined information processing capabilities and transmission functions that an ISP offers in broadband Internet access service. Thus, even assuming that any individual consumer could perceive an ISP's offer of broadband Internet access service as akin to a bare transmission service,¹⁷⁵ the information processing capabilities that are actually offered as an integral part of the service make broadband Internet access service an information service as defined by the Act.¹⁷⁶ As such, we reject commenters' assertions that the primary function of ISPs is to simply transfer packets and not process information.¹⁷⁷

50. The inquiry called for by the relevant classification precedent focuses on the nature of the service offering the provider makes, rather than being limited to the functions within that offering that particular subscribers do, in fact, use or that third parties also provide.¹⁷⁸ The *Title II Order* erroneously contended that, because functions like DNS and caching potentially could be provided by entities other than the ISP itself, those functions should not be understood as part of a single, integrated information service offered by ISPs.¹⁷⁹ However, the fact that some consumers obtain these functionalities from third-party alternatives is not a basis for ignoring the capabilities that a broadband provider actually "offers." The *Title II Order* gave no meaningful explanation why a contrary, narrower interpretation of "offer" was warranted other than, implicitly, its seemingly end-results driven effort to justify a telecommunications service classification of broadband Internet access service.

51. Our findings today are consistent with classification precedent prior to the *Title II Order*,

¹⁷⁴ See, e.g., CTIA Reply at 23; CTIA Comments, Exh. A, Rysavy Decl. at 3-4, para. 4 ("Transmission of data has become intertwined with other services that provide value to users. The very transmission of data in the internet involves processing of information, in some cases transforming packets."); AT&T Comments at 75 ("[I]t is only because DNS is part of retail broadband Internet access that consumers can visit any website without knowing its IP address and thereafter click through links on that website to other websites.").

¹⁷⁵ See, e.g., AARP Comments at 90-91; CDT Comments at 8; IEP Comments at 18; WGAW Comments at 5; Free Press Comments at 41.

¹⁷⁶ See, e.g., CenturyLink Comments at 25; Comcast Comments at 14; AT&T Comments at 69; see also Verizon Comments at 39; CTIA Comments at 36; Oracle Comments at 2; Free State Foundation Comments at 13; Cox Comments at 9.

¹⁷⁷ See, e.g., CDT Comments at 8; Stein Comments at 3; IEP Comments at 22; EFF Comments at 17-18; Peha Reclassification Comments at 18; Volo Comments at 1; IEP Comments at 20; Daily Kos Comments at 3; Harold Hallikainen Comments at 1; Ryan Blake Comments at 1-2; ILSR Comments at 1; Multifreq LLC Comments at 1.

¹⁷⁸ As the Commission recognized in the *Cable Modem Order*, Internet access service was appropriately classified as an offering of the capabilities with the definition of an information service "regardless of whether subscribers use all of the functions provided as part of the service." *Cable Modem Order*, 17 FCC Rcd at 4822-23, para. 38; see also, e.g., ACA Comments at 50-51; AT&T Comments at 81-82; CTIA Comments at 41; Comcast Comments at 18; Comcast Reply at 8-9; Free State Foundation Comments at 12-13; NCTA Comments at 16-17; AT&T Reply at 71-72; CTIA Reply at 25-26; Verizon Reply at 35.

¹⁷⁹ See, e.g., *Title II Order*, 30 FCC Rcd at 5769-71, paras. 370-72; see also, e.g., AARP Comments at 84-85; CDT Comments at 9 ("[I]nternet users commonly access services like DNS and email from separate third-party sources without any additional difficulty."); Harold Hallikainen Comments at 5; INCOMPAS Comments at 56; Public Knowledge/ Comments at 45 ("A broadband customer can configure the software on her device and router to use one of these alternative DNS servers, instead of her ISP's."); *id.* at 50-51 ("[I]t is not the ISPs but other third-parties who provide much of the actual caching functionality for broadband customers in the present day."); Barbara A. Cherry *et al.* Reply, Attach. at 6-7; Scott Jordan Reply at 10-12; Barbara van Schewick and Patrick Leerssen Reply at 22, 36-38); IEP Comments at 13, 15; Public Knowledge Comments at 49.

which consistently found that ISPs offer a single, integrated service.¹⁸⁰ Even the early classification analysis in the *Stevens Report* recognized that “[i]n offering service to end users” ISPs “do more than resell [] data transport services. They conjoin the data transport with data processing, information provision, and other computer-mediated offerings, thereby creating an information service.”¹⁸¹ In *Brand X*, the Court rejected claims that “[w]hen a consumer . . . accesses content provided by parties other than the cable company” that “consumer uses ‘pure transmission.’”¹⁸² The Court further found that “the high-speed transmission used to provide cable modem service is a functionally integrated component of that service because it transmits data only in connection with the further processing of information and is necessary to provide Internet service.”¹⁸³ The core, essential elements of these prior analyses of the

¹⁸⁰ Although we find the pre-1996 Act *classification* precedent relevant to our classification of broadband Internet access service, we reject the view that Congress would have expected classification under the 1996 Act’s statutory definitions to be tied to the substantive common carrier transmission *requirements* imposed under those frameworks. *See, e.g.*, Free Press Comments at 58-61. We conclude that the best view of the text and structure of the Act undercuts arguments that Congress sought to preserve the substance of pre-1996 Act regulations through the definitions it adopted. Instead, where Congress sought to address substantive requirements akin to those in the MFJ and *Computer Inquiries* it did so by adopting subjective obligations in the 1996 Act—even if not identical to the pre-1996 Act requirements—and subject to their own Congressionally-specified standards for when and to what entities they apply. *See, e.g.*, 47 U.S.C. §§ 251, 256. In addition, the wholesale service focus of substantive MFJ and *Computer Inquiries* common carrier transmission obligations also distinguishes them from the retail service we classify here, likewise undermining any claimed relevance of those pre-1996 Act transmission requirements to our classification decision. The Commission recognized, for example, that the transmission underlying broadband internet access required by the *Computer Inquiries* to be offered on an unbundled, common carrier basis and provided to ISPs was not a “retail” service within the meaning of section 251(c)(4) resale requirements. *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Second Report and Order, 14 FCC Rcd 19237 (1999). Nor did such a common carrier transmission service itself enable access to the Internet, even if purchased by end-users. *See, e.g., id.* at 19240, para. 6 & n.16 (noting a DSL transmission offering that, as explained in the associated marketing materials, end-users could purchase and use in conjunction with certain partner ISPs). By comparison, under the *Computer Inquiries*, the finished service offered to end-users relying on the required common carrier transmission as an input was regulated as an enhanced service, not a common carrier offering, even when offered by the facilities-based carrier’s subsidiary. *See, e.g., Computer II Final Decision*, 77 FCC 2d at 474, para. 230 (when carriers’ enhanced services subsidiaries offer enhanced services “the subsidiary itself is not regulated”). Given our focus here on the finished retail broadband Internet access service, we see little relevance to prior regulatory requirements that were imposed to ensure competing providers had access to a wholesale input in the form of a compelled common carriage offering of bare transmission that did not itself provide Internet access.

¹⁸¹ *Stevens Report*, 13 FCC Rcd at 11540, para. 81.

¹⁸² *Brand X*, 545 U.S. at 998. Subsequent Commission decisions involving other forms of broadband Internet access likewise all concluded that the broadband Internet access service was a single, integrated service that did not involve a stand-alone offering of telecommunications. *See, e.g., Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5911, 5913, paras. 26, 31; *BPL-Enabled Broadband Order*, 21 FCC Rcd at 13285-89, paras. 8-14; *Wireline Broadband Classification Order*, 20 FCC Rcd at 14864-65, 14910-11, paras. 15-16, 104. Although parties have, over time, held various views regarding the proper classification of broadband Internet access services, the mere fact that a party held such a view in the past, or holds such a view today, does not render a Commission decision confirming a particular view “moot,” *see, e.g.,* Free Press Reply at 14 (“AT&T’s new notion that DSL offered at retail was somehow an information service after the passage of the 1996 Act would render the 2005 *Wireline Broadband Order* moot”), since a private party’s subjective view is not authoritative. *Brand X*, 545 U.S. at 998.

¹⁸³ *Brand X*, 545 U.S. at 998. This distinction makes broadband Internet access service fundamentally different than standard telephone service, which the Supreme Court noted does not become an “information service” merely because its transmission service may be “trivially affected” by some additional capability such as voicemail. *Id.* Where the addition of some further capability has appeared to have only a trivial effect on the nature of a service, the Commission has previously declined requests for reclassification. *AT&T Calling Card Order*, 20 FCC Rcd at 4832-33, para. 20 (“AT&T offers its ‘enhanced’ calling card service to consumers solely as a telecommunications service. The advertising information it provides is not in any sense an integral or essential part of the service AT&T

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functional nature of Internet access remain persuasive as to broadband Internet access service today. We adhere to that view notwithstanding arguments that some subset of the array of Internet access uses identified in the *Stevens Report* or subsequent decisions either are no longer as commonly used,¹⁸⁴ or occur more frequently today.¹⁸⁵

52. We disagree with commenters who assert that ISPs necessarily offer both an information service and a telecommunications service because broadband Internet access service includes a transmission component.¹⁸⁶ In providing broadband Internet access service, an ISP *makes use of* telecommunications—i.e., it provides information-processing capabilities “via telecommunications”—but

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offers to consumers. Rather, it is completely incidental to that service and therefore not sufficient to warrant reclassification of the service as an information service.” (footnote omitted)); *Regulation of Prepaid Calling Card Services*, WC Docket No. 05-68, Declaratory Ruling and Report and Order, 21 FCC Rcd 7290, 7295-96, paras. 15, 16 (2006) (*Prepaid Calling Card Order*) (“The customer may use only one capability at a time and the use of the telecommunications transmission capability is completely independent of the various other capabilities that the card makes available. . . . The prepaid calling card services we address in this *Order* offer consumers the ability to make telephone calls, just like the AT&T card that the Commission addressed in the [*AT&T Calling Card Order*].”); *Request For Review By Intercall, Inc. of Decision of Universal Service Administrator*, CC Docket No. 96-45, Order, 23 FCC Rcd 10731, 10735, para. 13 (2008) (*InterCall Order*) (“[T]he other features offered in conjunction with InterCall’s conferencing service, such as muting, recording, erasing, and accessing operator services, do not alter the fundamental character of InterCall’s telecommunications offering so that the entire offering becomes an information service.”). Due to the functionally integrated nature of broadband Internet access service, however, we reject claims that those decisions call for a different approach than we adopt here. *See, e.g.*, Barbara van Schewick and Patrick Leerssen Reply at 25-26 (discussing the *AT&T Calling Card Order*, *Prepaid Calling Card Order*, and *InterCall Order*). Likewise, the outcome in the Bureau-level *Cisco WebEx Order* accords with our approach, given the finding that the information service capabilities more than trivially affected the transmission capability in the scenario addressed there. *See, e.g.*, *Universal Service Contribution Methodology; Request For Review of a Decision of the Universal Service Administrator by Cisco WebEx LLC*, WC Docket No. 06-122, Order, 31 FCC Rcd 13220, 13230-31, para. 24 (Wir. Comp. Bur. 2016) (*Cisco WebEx Order*) (In the *Prepaid Calling Card Order* “[t]he Commission noted that the customer may use only one capability at a time, and the use of the telephone calling capability was completely independent of the other capabilities unlike the services in the *Prepaid Calling Card Order* that were only minimally linked because they were not engaged or used simultaneously, . . . here the services are capable of — and are — used together and exhibit functional integration when they are so used.”). Contrary to some arguments, the Bureau had no need to—and did not—address the classification of other service scenarios, *see Cisco WebEx Order*, 31 FCC Rcd at 13224, paras. 11-12, and we reject arguments for a different classification approach that are premised on assumptions about how those unaddressed scenarios would have been analyzed or classified. *See, e.g.*, Barbara van Schewick and Patrick Leerssen Reply at 26-28 (“The FCC concluded that Cisco’s PSTN telephony feature was a ‘telecommunications service’ when used without the Desktop application (i.e. the information service).”).

¹⁸⁴ *See, e.g.* Ad Hoc Comments at 5-6 (citing use of Internet access for things like “‘FTP clients, Usenet newsreaders, electronic mail clients,’ and ‘Telnet applications’” as well as storing “‘files on internet service provider computers to establish ‘home pages’”); Free Press Comments at 26 & n.42 (similar); *id.* at 30-31 (alleging that the *Cable Modem Order* was focused on things like “email, newsgroups, and webpage creation” but “not connectivity to the Internet”); Public Knowledge/Common Cause Comments at 38-41 (discussing the reference to “‘e-mail, newsgroups, and the ability to create a web page’”).

¹⁸⁵ *See, e.g.*, AARP Comments at 87-90 (arguing that “[t]oday, Internet users are also edge providers” and that “[t]he technology setting that inspired the *Cable Modem Order* clearly no longer exists”). Even at the time of the *Cable Modem Order* the Commission recognize the role of user-generated content, and its decision in no way hinged on distinctions in how retail customers of cable modem service used that service in that respect. *See, e.g.*, *Cable Modem Order*, 17 FCC Rcd at 4822-23, para. 38 (discussing, among other things, newsgroups and the ability for the user to create a webpage).

¹⁸⁶ *See, e.g.*, INCOMPAS Comments at 41-46; OTI New America Comments at 26; Interisle Comments at 2; AARP Comments at 90-91.

does not separately *offer* telecommunications on a stand-alone basis to the public.¹⁸⁷ By definition, *all* information services accomplish their functions “via telecommunications,”¹⁸⁸ and as such, broadband Internet access service has always had a telecommunications component intrinsically intertwined with the computer processing, information provision, and computer interactivity capabilities an information service offers.¹⁸⁹ Indeed, service providers, who are in the best position to understand the inputs used in broadband Internet access service, do not appear to dispute that the “via telecommunications” criteria is satisfied even if also arguing that they are *not providing* telecommunications to end-users.¹⁹⁰ For example, ISPs typically transmit traffic between aggregation points on their network and the ISPs’ connections with other networks.¹⁹¹ Whether self-provided by the ISP or purchased from a third party, that readily appears to be transmission between or among points selected by the ISP of traffic that the ISP has chosen to have carried by that transmission link.¹⁹² Such inclusion of a transmission component does

¹⁸⁷ See, e.g., Cox Comments at 12-13; see also *Stevens Report*, 13 FCC Rcd at 11522, para. 41 (“When an entity offers subscribers the ‘capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing or making available information via telecommunications,’ it does not *provide* telecommunications; it is *using* telecommunications.” (emphasis added)); Hance Haney Reply at 3 (“The Commission affirmed that the telecommunications and information categories in the 1996 Act are mutually exclusive, *i.e.*, ‘when an entity offers transmission incorporating the “capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information,” it does not offer telecommunications. Rather, it offers an “information service” even though it uses telecommunications to do so” (citing *Stevens Report*, 13 FCC Rcd at 11536, para. 39).

¹⁸⁸ 47 U.S.C. § 153(50) (defining “telecommunications”). We observe that placing information in IP packets does not change the form of information. We find that the transmission of IP packets is transmission of the user’s choosing, and also agree that “[c]hanging the packet structure of an IP packet from IPv4 to IPv6” does not change the form of the information. Internet Engineers Comments at 29; see also Scott Jordan Reply at 27.

¹⁸⁹ CTIA Comments at 33-34; Comcast Comments at 14; Verizon Comments at 40; see also Vimeo Comments at 27 (asserting that “it has always been understood that BIAS’s pathway component was a telecommunications service”). As just one example, in support of its classification decision the *Title II Order* notes that it is technically possible for a transmission component underlying broadband Internet access service to be separated out and offered on a common carrier basis. See *Title II Order*, 31 FCC Rcd at 5774-75, para. 381. The same would be equally true of many information services, however, given that the information service capabilities are, by definition, available “via telecommunications.” 47 U.S.C. § 153(24); see also, e.g., OTI New America Comments at 26-27 (stating that “[b]ecause the functionality in both telecommunications and information services are separated into different layers, and those layers are modular such that the layers can interact without the telecommunications portion depending in any way on information service, telecommunications and information services are clearly separable,” and going on to argue that “[t]he technology itself clearly delineates between telecommunications and information service, and so should the law”).

¹⁹⁰ See, e.g., NCTA Comments at 9-10, 19-21 (arguing that “via telecommunications” is satisfied through the use of telecommunications as an input but also that the service provided to end-users lacks elements of the definition of “telecommunications”); AT&T Reply at 60, 66 (arguing that broadband Internet access service meets the “information service” definition but also that the service provided to end-users lacks elements of the definition of “telecommunications”); see also *Stevens Report*, 13 FCC Rcd at 11534-35, para. 69 n.138 (“When the information service provider owns the underlying facilities, it appears that it should itself be treated as providing the underlying telecommunications. That conclusion, however, speaks only to the relationship between the facilities owner and the information service provider (in some cases, the same entity); it does not affect the relationship between the information service provider and its subscribers.”).

¹⁹¹ See, e.g., 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, 237-39 (2013) (discussing connections among ISPs and other networks and providers), cited in AT&T Reply at 38 n.58.

¹⁹² We reject as overbroad the claim that “a transmission is ‘telecommunications’ within the meaning of 47 U.S.C. § 153(30) *only* if the transmission is capable of communicating with *all* circuit switched devices on the PSTN or has the purpose of facilitating the use of the PSTN without altering its fundamental character as a telephone network.” Tech Knowledge Comments at 5; see also, e.g., Tech Knowledge Reply at 11. This claim appears premised on

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not render broadband Internet access services telecommunications services; if it did, the entire category of information services would be narrowed drastically.¹⁹³ Because we find it more reasonable to conclude that at least some telecommunications is being used as an input into broadband Internet access service—thereby satisfying the “via telecommunications” criteria—we need not further address the scope of the “telecommunications” definition in order to justify our classification of broadband Internet access service as an information service. We thus do not comprehensively address other criticisms of the *Title II Order*’s interpretation and applications of the “telecommunications” definition, which potentially could have implications beyond the scope of issues we are considering in this proceeding.¹⁹⁴

53. The approach we adopt today best implements the Commission’s long-standing view that Congress intended the definitions of “telecommunications service” and “information service” to be mutually exclusive ways to classify a given service.¹⁹⁵ As the *Brand X* Court found, the term “offering” in the telecommunications service definition “can reasonably be read to mean a ‘stand-alone’ offering of telecommunications.”¹⁹⁶ Where, as in the case of broadband Internet access services, a service involving transmission inextricably intertwines that transmission with information service capabilities—in the form of an integrated information service—there cannot be “a ‘stand-alone’ offering of telecommunications” as required under that interpretation of the telecommunications service definition.¹⁹⁷ This conclusion is true even if the information service could be said to involve the provision of telecommunications as a component of the service.¹⁹⁸ The Commission’s historical approach to Internet access services carefully navigated that issue, while the *Title II Order*, by contrast, threatened to usher in a much more sweeping

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incorporating section 332’s definition of a commercial mobile service (which must be “interconnected” with the “public switched network”) into section 3 of the Act and drawing from pre-1996 Act precedent using an end-to-end analysis to determine the regulatory jurisdiction of communications traffic to inform the interpretation of the term “points.” See, e.g., Tech Knowledge Comments at 34-35; Tech Knowledge Reply at 11-17; Letter from Fred Campbell, Director, Tech Knowledge, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, at 1-2 (filed Sept. 19, 2017). But we find no evidence in the text of the statute that Congress intended to import the commercial mobile service definition from one section into another, and our precedent similarly does not countenance such an importation. Nor is the end-to-end analysis the only pre-1996 Act precedent from which the concept of “points” in the “telecommunications” definition might have been drawn so as to unambiguously foreclose our conclusion that “via telecommunications” is satisfied here. See, e.g., 47 CFR § 21.2 (1995).

¹⁹³ See, e.g., Verizon Comments at 40; CTIA Comments at 29; *Universal Service Contribution Methodology et al.*, WC Docket No. 06-122 *et al.*, 21 FCC Rcd 7518, 7538-39, para. 40 (2006) (An entity can “provide” telecommunications even if it does not “offer” telecommunications because “‘provide’ is a different and more inclusive term than ‘offer.’”).

¹⁹⁴ See generally Tech Knowledge Comments at 1-39; Tech Knowledge Reply at 1-45.

¹⁹⁵ See, e.g., *Wireline Broadband Classification Order*, 20 FCC Rcd at 14911, para. 105; *Petition For Declaratory Ruling That AT&T’s Phone-To-Phone IP Telephony Services Are Exempt From Access Charges*, WC Docket No. 02-361, Order, 19 FCC Rcd 7457, 7460-61, para. 6 (2004); *Cable Modem Order*, 17 FCC Rcd at 4823-24, para. 41; *Implementation of the Non-Accounting Safeguards of Section 271 and 272 of the Communications Act of 1934, as amended*, CC Docket No. 96-149, Order on Remand, 16 FCC Rcd 9751, 9755, 9770, paras. 8, 36 (2001); *Stevens Report*, 13 FCC Rcd at 11520, para. 39.

¹⁹⁶ *Brand X*, 545 U.S. at 989.

¹⁹⁷ *Id.* at 989.

¹⁹⁸ *Id.* at 992 (“[T]he statute fails unambiguously to classify the telecommunications component of cable modem service as a distinct offering.”); see also, e.g., *Universal Service Contribution Methodology et al.*, WC Docket No. 06-122 *et al.*, 21 FCC Rcd 7518, 7538-39, para. 40 (2006) (An entity can “provide” telecommunications even if it does not “offer” telecommunications because “‘provide’ is a different and more inclusive term than ‘offer.’”). *Vonage Holdings Corp. v. FCC*, 489 F.3d 1232, 1239-41 (D.C. Cir. 2007) (upholding the FCC’s distinction between “providing” telecommunications and “offering” telecommunications service).

scope of “telecommunications services.”¹⁹⁹

54. The *Title II Order* interpretation stands in stark contrast to the Commission’s historical classification precedent and the views of all Justices in *Brand X*. Beginning with the earliest classification decisions, the Commission found that transmission provided by ISPs outside the last mile was part of an integrated information service.²⁰⁰ The DSL transmission service previously required to be unbundled by the *Computer Inquiries* rules likewise was limited to the ‘last mile’ connection between the end-user and the ISP.²⁰¹ Nor did any Justice in *Brand X* contest the view that, beyond the last mile, cable operators were offering an information service. Indeed, the *Title II Order*’s broad interpretation of “telecommunications service” stands in contrast to the views of Justice Scalia himself,²⁰² on which the *Title II Order* purports to rely.²⁰³ Justice Scalia was skeptical that a telecommunications service classification of cable modem service would lead to the classification of ISPs as telecommunications carriers based on the transmission underlying their “connect[ions] to other parts of the Internet, including Internet backbone providers.”²⁰⁴ Yet the *Title II Order* reached essentially that outcome. The *Title II Order*’s interpretation of the statutory definitions did not merely lead it to classify ‘last mile’ transmission as a telecommunications service. Rather, under the view of the *Title II Order*, even the transmissions underlying an ISP’s connections to other parts of the Internet, including Internet backbone providers was part of the classified telecommunications service.²⁰⁵ Even if the *Title II Order*’s classification approach does not technically render the category of information services a nullity, the fact that its view of telecommunications services sweeps so much more broadly than previously considered possible provides

¹⁹⁹ See, e.g., *Title II Order*, 30 FCC Rcd at 5685-87, 5693-94, 5764-65, paras. 193, 195, 204, 364.

²⁰⁰ As the *Stevens Report* explained, “[i]n offering service to end users” ISPs “do more than resell [] data transport services. They conjoin the data transport with data processing, information provision, and other computer-mediated offerings, thereby creating an information service.” *Stevens Report*, 13 FCC Rcd at 11540, para. 81. The Commission further explained that, even though enhanced services were “offered ‘over common carrier transmission facilities,’ [they] were themselves not to be regulated under Title II of the Act, no matter how extensive their communications components.” *Stevens Report*, 13 FCC Rcd at 11514, para. 27 (emphasis added, quoting *Computer II Final Decision*, 77 FCC 2d at 428, para. 114); see also, e.g., ACA Comments at 46 (asserting that the Commission employed a narrow definition of “basic service in the Computer II Final Decision—i.e., anything more than basic is enhanced”); AT&T Comments at 64-65 (quoting *Stevens Report*, 13 FCC Rcd at 11514, para. 27); Hance Haney Comments at 4 (“Basic/telecommunications services were defined narrowly, and enhanced/information services were defined expansively.”). Indeed, under the *Computer Inquiries*, non-facilities-based providers of enhanced services “‘combin[ed] communications and computing components,’ yet the Commission held that they should ‘always be deemed enhanced’ and therefore not subject to common carrier regulation.” *Brand X*, 545 U.S. at 994 (quoting *Stevens Report*, 13 FC Rcd at 11530, para. 60).

²⁰¹ See, e.g., *GTE Telephone Operating Cos. GTOC Tariff No. 1, GTOC Transmittal No. 1148*, 13 FCC Rcd 22466, 22471-72, paras. 8-11 (1998).

²⁰² See, e.g., *Brand X*, 545 U.S. at 1010-11 (Scalia, J., dissenting) (“When cable-company-assembled information enters the cable for delivery to the subscriber, the information service is already complete.”); see also, e.g., ADTRAN Comments at 7 (“[T]he functionality that Justice Scalia was addressing in *Brand X* was solely the last-mile connection -- not the complete package of Internet access service and capabilities that was reclassified in the 2015 *Open Internet Order*.”); AT&T Comments at 84 (“[T]he *Title II Order* embraced a position that none of the litigants or the Justices accepted: that broadband Internet access is a single, unitary telecommunications service. The *Title II Order* defined, as a telecommunications service, not merely a transmission link connecting a consumer to the broadband provider’s network, but rather the entire Internet access service that the Commission had for decades concluded was an information service.”).

²⁰³ See, e.g., *Title II Order*, 30 FCC Rcd at 5614-15, 5745, 5757-58, 5767-68, 5773, paras. 44-46, 333, 356, 366-67, 376.

²⁰⁴ *Brand X*, 545 U.S. at 1010-11 (Scalia, J., dissenting).

²⁰⁵ See, e.g., *Title II Order*, 30 FCC Rcd at 5685-87, 5693-94, 5764-65, paras. 193, 195, 204, 364.

significant support for our reading of the statute and the classification decision we make today.²⁰⁶

55. In contrast, our approach leaves ample room for a meaningful range of “telecommunications services.” Historically, the Commission has distinguished service offerings that “always and necessarily combine” functions such as “computer processing, information provision, and computer interactivity with data transport, enabling end users to run a variety of applications such as e-mail, and access web pages and newsgroups,” on the one hand, from services “that carriers and end users typically use [] for basic transmission purposes” on the other hand.²⁰⁷ Thus, an offering like broadband Internet access service that “always and necessarily” includes integrated transmission and information service capabilities would be an information service.²⁰⁸ The Commission’s historical interpretation thus gives full meaning to both “information service” and “telecommunications service” categories in the Act.

²⁰⁶ See, e.g., NCTA Comments at 21-25 (“Under [the *Title II Order*’s] reasoning, a whole host of other entities that make use of their own broadband transmission facilities to deliver Internet content likely would qualify as providers of ‘telecommunications services’ as well. . . . The potentially far-reaching implications of the *Title II Order*’s broad reading of the definition of ‘telecommunications service’ only underscore that a Title II classification is a poor fit for BIAS.”). That the Commission previously identified policy concerns about Internet traffic exchange says nothing about classification, and thus is not to the contrary. See, e.g., INCOMPAS Comments at 58-59 (“[E]ven the *2010 Open Internet Order* understood that the point at which a broadband provider’s network connects to the Internet is capable of being used to circumvent the no-blocking rule.”); *id.* at 62 (discussing prior investigations of interconnection issues in mergers). Nor did the *Advanced Services* proceedings identify interconnection obligations on providers of xDSL transmission as services necessary to ensure the provision of Internet access. See, e.g., Scott Jordan Reply at 18 (“The next type of Internet access service that the Commission considered [in the *Advanced Services Order*] was *xDSL-based advanced service*, . . . including: . . . (3) interconnection arrangements with providers necessary to fulfill the service.”); *id.* at 23 (“The *Advanced Services Remand Order* clarifies that the FCC has ‘consistently rejected attempts to divide communications at any intermediate points of switching or exchanges between carriers’, and that xDSL-based advanced service provides transmission between the customer’s modem and the other party with which the customer is communicating, e.g., a website.”). Instead, any interconnection obligations identified there were limited to interconnection between providers of common carrier xDSL transmission service and other telecommunications carriers (rather than providers of edge services or non-common carrier backbone services). See *Deployment of Wireline Services Offering Advanced Telecommunications Capability, et al.*, CC Docket No. 98-147 *et al.*, Memorandum Opinion and Order, and Notice of Proposed Rulemaking, 13 FCC Rcd 24012, 24034, paras. 45, 46 (1998) (*Advanced Services Order*). The cited portion of the *Advanced Services Remand Order* does not even have anything to do with interconnection requirements or the scope of functions in an xDSL-based advanced service. Rather, it analyzed the jurisdiction of the traffic being carried over the service, which, under the traditional end-to-end analysis, was not limited in scope to any given service within a broader communications pathway. See *Deployment of Wireline Services Offering Advanced Telecommunications Capability et al.*, CC Docket No. 98-147 *et al.*, Order on Remand, 15 FC Rcd 385, 391-92, para. 16 (1999) (*Advanced Services Remand Order*) vacated *WorldCom v. FCC*, 246 F.3d 690 (D.C. Cir. 2001).

²⁰⁷ *Wireline Broadband Classification Order*, 20 FCC Rcd at 14860-61, para. 9. Our interpretation thus stops far short of the view that “every transmission of information becomes an information service.” Free Press Comments at 52 (emphasis in original); see also, e.g., Public Knowledge/Common Cause Comments at 28-31 (asserting that a broad reading of “capability” consistent with the *Restoring Internet Freedom NPRM* would have made it unnecessary for the *Brand X* court to consider whether transmission was functionally integrated with information service capabilities and that such an interpretation would encompass “voice communications over the traditional telephone network” and would read both the definition of “telecommunications service” and the telecommunications management exception out of the statute); RISE Stronger Comments at 11 (objecting to an interpretation of “capability” it views as “impossibly overbroad”).

²⁰⁸ See, e.g., *Brand X*, 545 U.S. at 992 (“One can pick up a pizza rather than having it delivered, and one can own a dog without buying a leash. By contrast, the Commission reasonably concluded, a consumer cannot purchase Internet service without also purchasing a connection to the Internet and the transmission always occurs in connection with information processing.”). The distinction between services that “always and necessarily” includes integrated transmission and information service capabilities and those that do not also highlights a critical difference between Internet access service and the service addressed in precedent such as the *Advanced Services Order*. The transmission underlying Internet access service that, prior to the *Wireline Broadband Classification Order*, carriers

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56. We reject assertions that the analysis we adopt today would necessarily mean that standard telephone service is likewise an information service. The record reflects that broadband Internet access service is categorically different from standard telephone service in that it is “*designed with advanced features, protocols, and security measures so that it can integrate directly into electronic computer systems and enable users to electronically create, retrieve, modify and otherwise manipulate information stored on servers around the world.*”²⁰⁹ Further, “[t]he dynamic network functionality enabling the Internet connectivity provided by [broadband Internet access services] is fundamentally different from the largely static one dimensional, transmission oriented Time Division Multiplexing (TDM) voice network.”²¹⁰ This finding is consistent with past distinctions. Under pre-1996 Act MFJ

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had been required by the *Computer Inquiries* to unbundle and offer as a bare transmission service on a common carrier basis to ensure its availability to competing enhanced service providers—and which did not itself provide Internet access—is another specific example of a service that does not “always and necessarily” include integrated transmission and information service capabilities. *See, e.g., Wireline Broadband Classification Order*, 20 FCC Rcd at 14875-76, para. 41 (“all wireline broadband Internet access service providers are no longer subject to the *Computer II* requirement to separate out the underlying transmission from wireline broadband Internet access service and offer it on a common carrier basis”); Interisle Consulting Group Comments at 4 (prior to the *Wireline Broadband Classification Order*, “DSL (in its raw form) was tariffed as Special Access”). The Commission naturally recognized at the time that the compelled common carriage offering of bare transmission was a telecommunications service, and we reject the view that such an acknowledgment is inconsistent with, or undercuts our reliance on, precedent classifying Internet access service as an integrated information service. *See, e.g., Title II Order*, 31 FCC Rcd at 5737-38, para. 315 & nn. 816, 817 (quoting prior Commission observations about carriers’ offering of broadband transmission underlying Internet access services as a stand-alone common carrier service as required by the *Computer Inquiries* rules at that time); *see also, e.g., AARP Comments* at 4-5 (stating that “high capacity broadband telecommunications services were also covered under Title II” and citing precedent in that regard from 1998); *id.* at 95-96 (“[A]t the time of the *Stevens Report*, the services needed to reach one’s ISP were governed by Title II”); Free Press Comments at 28 (discussing precedent from while the *Computer Inquiries* unbundling requirement for transmission underlying Internet access remained in effect); OTI New America Comments at 25 (similar); Barbara A. Cherry *et al.* Reply at 6 (similar); Free Press Reply at 13-14 (similar); Scott Jordan Reply at 6, 18, 20 (similar); OTI New America Reply at 10-13 (similar). In addition, the discussion of xDSL advanced services in the *Advanced Services Order* cited by commenters addressed the transmission service generally. *See, e.g., AARP Comments* at 4-5 (quoting *Advanced Services Order*, 13 FCC Rcd at 24029-30, para. 35); Free Press comments at 28 (quoting *Advanced Services Order*, 13 FCC Rcd at 24030, para. 36); Scott Jordan Reply at 18 (citing *Advanced Services Order*, 13 FCC Rcd at 24026-24, 24034-35, paras. 29, 31 & Section V.A.3). It did not purport to be focused specifically on the use of xDSL transmission in connection with Internet access service, rather than addressing the classification of the stand-alone transmission service as a general matter. *See, e.g., Advanced Services Order*, 13 FCC Rcd at 24027, para. 31 (“Once on the packet-switched network, the data traffic is routed to the location selected by the customer, for example, a corporate local area network or an Internet service provider.”) *id.* at 24029-30, paras. 35, 36 (“xDSL and packet switching are simply transmission technologies. . . . An end-user *may* utilize a telecommunications service together with an information service, as in the case of Internet access.” (emphasis added)); *id.* at 24033, para. 42 (“We note that in a typical xDSL service architecture, the incumbent LEC uses a DSLAM to direct the end-user’s data traffic into a packet-switched network, and across that packet-switched network to a terminating point selected by the end-user. Every end-user’s traffic is routed onto the same packet-switched network, and there is no technical barrier to any end-user establishing a connection with any customer located on that network (or, indeed, on any network connected to that network).”).

²⁰⁹ Verizon Reply at 32.

²¹⁰ CenturyLink Comments at 26; *see also* NCTA Comments at 18 (asserting that broadband service is fundamentally different from traditional, circuit-switched telephone service); CenturyLink Comments Appx. 2, Declaration of Phillip Bronsdon at 23- 24 (“[T]he Internet is an open, dynamic system that includes an unrestricted community of providers, organizations and individuals that can evolve the functionality of the Internet quickly. In contrast, the TDM network is a static, generally closed system operated securely within the confines of each telecommunications provider based on stable, relatively mature and unchanging standards. Additionally, Internet protocols that control the functionality of the Internet, such as routing protocols, are themselves communicated in-band via the TCP/IP suite and create a dynamic, interactive network functionality that is essential to creating the

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precedent, for example, although the provision of time and weather services was an information service, when a BOC's traditional telephone service was used to call a third party time and weather service "the Operating Company does not 'provide information services' within the meaning of section II(D) of the decree; it merely transmits a call under the tariff."²¹¹ In other words, the fundamental nature of traditional telephone service, and the commonly-understood purpose for which traditional telephone service is designed and offered, is to provide basic transmission—a fact not changed by its incidental use, on occasion, to access information services. By contrast, the fundamental nature of broadband Internet access service, and the commonly-understood purpose for which broadband Internet access service is designed and offered, is to enable customers to generate, acquire, store, transform, process, retrieve, utilize, and make available information. In addition, broadband Internet access service includes DNS and caching functionalities, as well as certain other information processing capabilities. As such, we reject assertions that, under the approach we adopt today, any telephone service would be an information service because voice customers can get access to either automated information services or a live person who can provide information.²¹²

57. Additionally, efforts to treat the *Stevens Report* as an outlier that should not have been followed in subsequent classification decisions—and should not be followed here—are ultimately unpersuasive. The clear recognition in the *Stevens Report* that the ISPs at issue were themselves providing data transmission as part of their offerings undercuts arguments seeking to distinguish the *Stevens Report* based on the theory that the transmission used to connect to ISPs typically involved common carrier services either directly (via a call to a dial-up ISP using traditional telephone service) or indirectly (with the ISP using common carrier broadband transmission as a wholesale input into its retail information service).²¹³ While the extent of data transmission provided by the ISPs that were found to be

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dynamic and interactive characteristics inherent to BIA service usage. In contrast, the TDM network generally separates the signaling protocols from the information that is being transported, such that the control protocols are out-of-band on isolated secure networks within the control of each telecommunications provider. And, this signaling protocol serves functions based solely upon the set up and tear down of calls.”).

²¹¹ *U.S. v. West. Elec. Co., Inc.*, 578 F. Supp. 658, 661 (D.D.C. 1983); *see also, e.g.*, Harold Hallikainen Comments at 7-8, 13 (citing telephone calls to find out the time or weather or to retrieve fax on demand document and stating that “[n]one of these convert the telephone call to an ‘information service’”); OTI New America Comments at 30 (similar); Scott Jordan Reply at 9 (“Telephone exchange service enables an end user to perform acquisition of information, namely the information transmitted via the telephone exchange service. Telephone exchange service also enables an end user to perform storing of information, e.g., using an answering machine. But clearly this does not make telephone exchange service an information service.”).

²¹² *See, e.g.*, Public Knowledge at 29 (“[U]nder the NPRM’s interpretation, any telephone service would be (and always has been) an ‘information service’”); Peha Reclassification Comments at 5 (stating that if the Commission concludes that “Internet access is not telecommunications because an IP address can sometimes be mapped to more than one server, some of which support caches, then the FCC must also conclude that telephone service is not telecommunications, because many calls to 800 numbers can be mapped to any one of a number of call centers around the country, and the initiator of the call does not specify which”); OTI New America Comments at 30; Free Press Comments at 54; Free Press Reply at 16 (“Landline services allow customers to ‘store’ information via voicemail and other data storage services, ‘transform’ and ‘process’ the human voice and tones into electrical signals, and ‘generate’ and ‘make available’ information via directories and other interactive voice response systems.” (footnote omitted)); AARP Comments at 92.

²¹³ *See, e.g.*, Free Press Comments at 25-28, 31; INCOMPAS Comments at 42-43; Barbara A. Cherry *et al.* Reply at 5-6. Arguments that go even further and suggest that the service addressed in the *Stevens Report* did not provide transmission at all are clearly at odds with the text of the *Stevens Report* itself. *Compare, e.g.*, Scott Jordan Reply at 18 (“Dial-up Internet access service thus excludes the underlying telecommunications, which was provided in part by the telephone exchange service than an end user separately obtained in order to ‘dial-up.’”) *with, e.g., Stevens Report*, 13 FCC Rcd at 11532-33, para. 60 (discussing how ISPs engage in data transport even though they often lack their own facilities).

offering information services in the *Stevens Report* might be incrementally less than the transmission provided by the ISPs dealt with in subsequent information service classification decisions, that appears to be at most a difference in degree, rather than a difference in kind, and the record does not demonstrate otherwise.²¹⁴ Nor can the *Stevens Report's* analysis and information service classification be distinguished on the grounds that the ISPs there generally did not own the facilities they used.²¹⁵ Although the *Stevens Report* observed that the analysis of whether a single integrated service was being offered was “more complicated when it comes to offerings by facilities-based providers,” it did not prejudge the resolution of that question.²¹⁶ Thus, there is no reason to simply assume that it was inappropriate for the Commission to build upon the *Stevens Report* precedent when analyzing service offerings from facilities-based providers beginning in the *Cable Modem Order*.²¹⁷ Nor do commenters identify material technical differences when facilities ownership is involved that would mandate a different classification analysis.²¹⁸ Finally, our reliance on classification precedent does not rest on the *Stevens Report* alone, but draws from the full range of classification precedent, both pre- and post-1996 Act. This reliance notably includes not only the Commission’s classification decisions, but the Supreme Court’s subsequent analysis in *Brand X*. And although some commenters criticize the lack of express

²¹⁴ See, e.g., AT&T Reply at 59 (“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.” (emphasis in original)).

²¹⁵ See, e.g., Free Press Comments at 26 (citing statements from the *Stevens Report* that “‘Internet access providers, typically, own no telecommunications facilities’” and thus would “‘lease lines and otherwise acquire telecommunications, from telecommunications providers,’” and arguing that “[t]his emphatically does not describe the facilities-based BIAS providers of today”); Harold Hallikainen Comments at 4-5 (“Internet Service Providers today own copper pairs for DSL, coaxial cable for cable modem service, and optical fiber for fiber Internet access. . . . ISPs that do own telecommunications facilities . . . should be considered telecommunications services and regulated in the same manner as other telecommunications services.”); OTI New America Comments at 25 (“[D]ial-up providers typically leased transmission lines (a telecom service) from another provider or required their customers to have access to a separate transmission line, such as their phone provider,” a “distinction[that] informed the Commission’s earlier determination that dial up ‘Internet access service . . . was an information service.”); *id.* at 27-28 (“Today, BIAS providers rarely lease telecommunication services from other carriers. . . . The analyses in the *Stevens Report* and *Cable Modem Order* no longer apply to broadband internet access, and therefore do not provide a contemporary basis for reclassifying BIAS back to Title I.”); Public Knowledge Comments at 60 (citing “the open access rules that were in effect at the time of the *Stevens Report*”); Free Press Reply at 15 (“Broadband providers try to appropriate the *Stevens Report*, but as we have shown that decision dealt with over-the-top 90s-era dial-up ISPs and not modern facilities-based BIAS.”).

²¹⁶ *Stevens Report*, 13 FCC Rcd at 1153, para. 60.

²¹⁷ See, e.g., Free Press Comments at 27 n.45 (“[S]ubsequent actions to import [the *Stevens Report*] analysis wholesale are the demarcation point for the Commission’s original errors made in the Powell era”). Given that the Commission’s inquiries under section 706 of the 1996 Act did not involve the classification of broadband Internet access service, we likewise reject the argument that observations there regard “broadband service” or the like have any bearing on, or otherwise undercut, the *Cable Modem Order* and subsequent broadband Internet access service classification decisions. See, e.g., OTI New America Reply at 18 (“The *Cable Modem Order* was also inconsistent with the Commission’s early Section 706 inquiries, which clearly stated that ‘broadband service does not include content, but consists only of making available a communications path on which content may be transmitted and received.’”).

²¹⁸ While the *Stevens Report* recognized that under *Computer Inquires* precedent “offerings by non-facilities-based providers combining communications and computing components should always be deemed enhanced,” *Stevens Report*, 13 FCC Rcd at 11530, para. 60, had its analysis simply been carrying forward that approach most of its analysis would have been unnecessary (since Internet access clearly did combine communications and computing components). Thus, whether or not the more extensive analysis set forth in the *Stevens Report* was necessary to find Internet access provided by non-facilities-based ISPs to be an information service, that analysis cannot be said to be a mere relic of the *Computer Inquiries* approach to non-facilities based providers.

consideration of the possible application of the telecommunications management exception in the *Stevens Report*, our evaluation of the pre-1996 Act MFJ and *Computer Inquiries* precedent better accords with outcome of that *Report* and the subsequent classification decisions than it does with the *Title II Order* in that regard.²¹⁹

3. Other Provisions of the Act Support Broadband's Information Service Classification

58. We also find that other provisions of the Act support our conclusion that broadband Internet access service is appropriately classified as an information service.²²⁰ For instance, Congress codified its view in section 230(b)(2) of the Act, stating that it is 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.”²²¹ This statement shows that the free market approach that flows from classification as an information service is consistent with Congress's intent. In contrast, we find it hard to reconcile this statement in section 230(b)(2) with a conclusion that Congress intended the Commission to subject broadband to common carrier regulation under Title II.²²²

59. Additional provisions within Sections 230 and 231 of the Act lend further support to our interpretation. Section 230(f)(2) defines an interactive computer service to mean “*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.*”²²³ Thus, on its face, the plain language of this provision appears to reflect Congress' judgment that Internet access service is an information service.²²⁴

60. Section 230 states that an “information service” includes “a service or system that provides access to the Internet,” and we disagree with commenters who read the definition of “interactive computer service” differently. Specifically, we disagree with commenters asserting 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 provider” or “system.”²²⁵ We think it a more reasonable interpretation that the phrase “service . . . that provides access to the Internet” modifies the noun phrase “information service.”²²⁶ Similarly, we disagree 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.”²²⁷ On the contrary, we agree with AT&T that

²¹⁹ See, e.g., Scott Jordan Reply at 9 n.19. We reject similar criticisms of other precedent for the same reason. See, e.g., *id.* at 12 (“The *Cable Modem Declaratory Ruling* . . . neglected to determine whether [DNS] fell within the telecommunications system management exception when offered by a cable modem provider.”).

²²⁰ We do not assert that the language in sections 230 and 231 is determinative of the information service classification; rather, we find it to be supportive of our analysis of the textual provisions at issue. As such, we find Public Knowledge's assertions that the Commission's reasoning “would overrule the Supreme Court's holding in *Brand X* . . . [in which] the Court ruled that the Communications Act does not make explicit the correct classification of BIAS” inapposite. See Public Knowledge Comments at 32.

²²¹ 47 U.S.C. § 230(b)(1).

²²² See, e.g., ACA Comments at 55.

²²³ 47 U.S.C. § 230(f)(2) (emphasis added).

²²⁴ See, e.g., ACA Comments at 53; AT&T Comments at 72; Bennett Comments at 12; NCTA Comments at 25-26; Reason Foundation Comments at 9.

²²⁵ See, e.g., INCOMPAS Comments at 67; OTI New America Comments at 34.

²²⁶ See AT&T Reply at 68; 47 U.S.C. § 230(f)(2); see also Verizon Reply at 36, n.154.

²²⁷ Public Knowledge Comments at 36.

“the formula ‘any X, including specifically a Y,’ does logically imply that all Ys are Xs.”²²⁸

61. Reliance on Section 230(f)(2) to inform the Commission’s interpretations and applications of Titles I and II accords with widely accepted canons of statutory interpretation.²²⁹ The Supreme Court has recognized there is a “natural presumption that identical words used in different parts of the same act are intended to have the same meaning.”²³⁰ And there is nothing in the context of either section that overcomes the presumption. Indeed, the similarity of circumstances confirms the presumption of similar meaning, as Titles I and II, as well as section 230, were all adopted as part of the 1996 Act.²³¹ Thus, we disagree with the *Title II Order*’s argument that giving section 230 its plain meaning would be “an oblique” way to “settle the regulatory status of broadband Internet access.”²³² On the contrary, we agree that “it is hardly ‘oblique’ for Congress to confirm in section 230 that Internet access should be classified as an unregulated information service when elsewhere in the same legislation Congress codifies a definition of ‘information services’ that was long understood to include gateway services such as Internet access.”²³³ And while the *US Telecom* court did not find this definition determinative on the issue, we find that “it is nonetheless a strong indicator that Congress was more comfortable with the prevailing view that provision of Internet access is not a telecommunications service, and should not be subject to the array of Title II statutory provisions.”²³⁴ We find inapplicable the *USTelecom* court’s invocation of the principle that “Congress . . . does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions.”²³⁵ Section 230 did not alter any fundamental details of Congress’s regulatory scheme but was part and parcel of that scheme, and confirmed what follows from a plain reading of Title I—namely, that broadband Internet access service meets the definition of an information service.²³⁶

²²⁸ AT&T Reply at 68.

²²⁹ See Free State Foundation Reply at 24-25.

²³⁰ *Atlantic Cleaners & Dryers v. United States*, 286 U.S. 427, 433 (1932); *Sorenson v. Sec’y of the Treasury*, 475 U.S. 851, 860 (1986) (“The normal rule of statutory construction assumes that ‘identical words used in different parts of the same act are intended to have the same meaning’”) (citations omitted); see also AT&T Comments at 72.

²³¹ See Free State Foundation Reply at 25.

²³² *Title II Order*, 30 FCC Rcd at 5777, para. 386. This argument was also upheld as reasonable by the majority in *USTelecom*. *USTelecom*, 825 F.3d at 703 (citations omitted); see also Public Knowledge Comments at 34 (“[I]t is unfathomable that Congress would have buried such a fundamental issue—the appropriate regulatory classification of BIAS—with the ancillary provisions of the Communications Act where Sections 230 and 231 reside.”).

²³³ AT&T Comments at 72.

²³⁴ WISPA Comments at 25; see also Comcast Comments at 24-25; NCTA Comments at 26 (“[E]ven if Section 230 does not preclude a ‘telecommunications service’ classification for BIAS, it plainly counsels against it.”).

²³⁵ *USTelecom*, 825 F.3d at 703 (citing *Whitman v. American Trucking Ass’ns*, 531 U.S. 457, 468 (2001)).

²³⁶ Free State Foundation Reply at 25-26; Comcast Comments at 7-8. The legislative history of section 230 also lends support to the view that Congress did not intend the Commission to subject broadband Internet access service to Title II regulation. The congressional record reflects that the drafters of section 230 did “not wish to have a Federal Computer Commission with an army of bureaucrats regulating the Internet.” See 141 Cong. Rec. H8470 (daily ed. Aug. 4, 1995) (statement of Rep. Cox). But see, e.g., Lazarus Comments at 6 (asserting that “These sections address the specific problems of immunizing ISPs that may carry offensive content (Section 230) and of the Internet material that is harmful to minors (Section 231) . . . [and] do not purport to regulate any other aspect of the Internet. If Congress had meant these definitions to have general applicability, it would have put them among the other general definitions in Section 153.”); OTI New America Comments at 34-35 (asserting that “[t]he Section 230 and 231 arguments should be rejected” as “the NPRM claims that Congress hid the elephant of mandatory information services classification of all internet services in the mouse holes of Section 230 and 231, which are separate statues addressing specifically indecent online content with their own definition sections”); New Media Rights at 6 (asserting that section 230 protects a variety of entities from legal claims based on the behavior and

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62. Section 231, inserted into the Communications Act a year after the 1996 Act's passage,²³⁷ similarly lends support to our conclusion that broadband Internet access service is an information service. It expressly states that "Internet access service" "does not include telecommunications services," but rather "means a service that enables users to access content, information, electronic mail, or other services offered over the Internet, and may also include access to proprietary content, information, and other services as part of a package of services offered to consumers."²³⁸ Further, the carve-outs in section 231(b)(1)-(2) differentiate the provision of telecommunications services and the provision of Internet access service.²³⁹ It is hard to imagine clearer statutory language. The Commission has consistently held that categories of telecommunications service and information service are mutually exclusive; thus, because it is an information service, Internet access cannot be a telecommunications service.²⁴⁰ On its face then, this language strongly supports our conclusion that, under the best reading of the statute, broadband Internet access service is an information service, not a telecommunications service.²⁴¹

63. We also find that the purposes of the 1996 Act are better served by classifying broadband Internet access service as an information service. Congress passed the Telecommunications Act to "promote competition and reduce regulation."²⁴² Further, as a bipartisan group of Senators stated, "[n]othing in the 1996 Act or its legislative history suggests that Congress intended to alter the current classification of Internet and other information services or to expand traditional telephone regulation to new and advanced services."²⁴³ Or as Senator John McCain put it, "[i]t certainly was not Congress's intent in enacting the supposedly pro-competitive, deregulatory 1996 Act to extend the burdens of current

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illegal acts of third parties online and has nothing to do with rules governing the behavior of broadband internet access providers).

²³⁷ Child Online Protection Act, Pub. L. No. 105-277, 112 Stat. 2681-736, § 1403 (codified at 47 U.S.C. § 231), *enjoined from enforcement in alternative part by American Civil Liberties Union v. Mukasey*, 534 F.3d 181 (3d. Cir. 2008) (prohibiting enforcement of COPA's civil and criminal penalties contained in 47 U.S.C. § 231(a)(1)), *cert. denied* 555 U.S. 1137.

²³⁸ 47 U.S.C. § 231(e)(4). Section 231 defines Internet access service as one offering many capabilities (like an information service): "a service that enables users to access content, information, electronic mail, and other services offered over the Internet, and may also include access to proprietary content, information, and other services as part of a package of services offered to consumers." 47 U.S.C. § 231(e)(4).

²³⁹ *Compare* 47 U.S.C. § 231(b)(1) (exempting "a telecommunications carrier engaged in the provision of a telecommunications service") *with* 47 U.S.C. § 231(b)(2) (exempting "a person engaged in the business of providing an Internet access service").

²⁴⁰ *Stevens Report*, 13 FCC Rcd at 11507-8, para. 13; *Cable Modem Order*, 17 FCC Rcd at 4823-24, para. 41; *see also* AT&T Comments at 72-73 (asserting that the final sentence of section 231(e)(4), which Congress enacted in October 1998, approximately seven months after the *Stevens Report* confirmed that Internet access is an information service, indicates once more that Congress agreed with the Commission that an Internet access service is not a "telecommunications service" within the meaning of section 3 of the Act).

²⁴¹ Verizon Comments at 39-40; Free State Foundation Comments at 16-17; *but see cf.* Peha Reclassification Comments at 11 (asserting that there is nothing in section 231 that defines an information service or states that Internet access service is an information service); OTI New America Comments at 35 (explaining that Congress used "Internet access service" to mean dial-up service, and was not specifically referring to broadband Internet access service).

²⁴² Preamble, Telecommunications Act of 1996.

²⁴³ Letter from Senators John Ashcroft, Wendell Ford, John Kerry, Spencer Abraham, and Ron Wyden to the Honorable William E. Kennard, Chairman, FCC, at 1 (Mar. 23, 1998) (Five Senators Letter), <http://apps.fcc.gov/ecfs/document/view?id=2038710001>.

Title II regulation to Internet services, which historically have been excluded from regulation.”²⁴⁴ It stands these goals on their head for the Commission, as deployment of advanced services reaches the mainstream of Americans’ lives, to perpetuate the very Title II regulatory edifice that the 1996 Act sought to dismantle.²⁴⁵ An information service classification will “reduce regulation” and preserve a free market “unfettered by Federal or State regulation.”

64. Finally, we observe that the structure of Title II appears to be a poor fit for broadband Internet access service. Indeed, numerous Title II provisions explicitly assume that all telecommunications services are a telephone service. For example, section 221 addresses special provisions related to telephone companies,²⁴⁶ section 251 addresses the obligations of local exchange carriers and incumbent local exchange carriers,²⁴⁷ and section 271 addresses limitations on Bell Operating Companies’ provision of interLATA services.²⁴⁸ Therefore, it is no surprise that the *Title II Order* found that many provisions of Title II were ill-suited to broadband Internet access services, and the Commission was forced to, on its own motion, forbear either in whole or in part on a permanent or temporary basis from 30 separate sections of Title II as well as from other provisions of the Act and Commission rules.²⁴⁹ We find that the significant forbearance the Commission deemed necessary in the *Title II Order* strongly suggests that the regulatory framework of Title II, which was specifically designed to regulate telephone services, is unsuited for the dissimilar and dynamic broadband Internet access service marketplace.²⁵⁰

B. Reinstating the Private Mobile Service Classification of Mobile Broadband Internet Access Service

65. Having determined that broadband Internet access service, regardless of whether offered using fixed or mobile technologies, is an information service under the Act, we now address the appropriate classification of mobile broadband Internet access service under section 332 of the Act. We restore the prior longstanding definitions and interpretation of this section and conclude that mobile broadband Internet access service should not be classified as a commercial mobile service or its functional equivalent.

66. *Background.* Section 332 of Title III, enacted by Congress as part of the Omnibus Budget Reconciliation Act of 1993 (the Budget Act),²⁵¹ provides a specific framework that applies to providers of “commercial mobile service.” The section defines “commercial mobile service” as: “any

²⁴⁴ *Stevens Report*, 13 FCC Rcd at 11519, para. 37 (quoting Letter from Senator John McCain to the Honorable William E. Kennard, Chairman, FCC).

²⁴⁵ Alaska Communications Comments at 5; Verizon Reply at 36, n.154.

²⁴⁶ 47 U.S.C. § 221.

²⁴⁷ 47 U.S.C. § 251.

²⁴⁸ 47 U.S.C. § 271.

²⁴⁹ See *Title II Order*, 30 FCC Rcd at 5834, para. 486 (sections 254(d), (g), and (k)); 5825, para. 470 (section 225(d)(3)(B)); 5835, para. 488 (section 254(d)’s first sentence); 5841, para. 497 (section 203); 5845, para. 505 (section 204); 5845, para. 506 (section 205); 5846, para. 508 (sections 211, 213, 215, 218, 219, 220); 5847-49, paras. 509-12 (section 214 except for subsection (e)); 5849-50, para. 513 & n.1571 (section 251 except for subsection (a)(2), section 256); 5852, para. 515 (section 258).

²⁵⁰ See, e.g., ITIF Comments at 6 (arguing *Title II Order*’s forbearance presents slippery slope that the Commission should remove itself from and exposes Title II as a kludge of a legal mechanism); Verizon Comments at 41; TechFreedom Reply at 27-34, 49-52; Comcast Comments at 25 (asserting that “the need to forbear from so much of Title II in the *Title II Order* should have been a red flag that it was ‘tak[ing] a wrong interpretive turn,’ and provides yet another basis for embracing an information service classification here” (citing *Util. Air Regulatory Group v. EPA*, 134 S. Ct. 2427, 2446 (2014))).

²⁵¹ Pub. L. No. 103-66, 107 Stat. 312 (1993).

mobile service . . . that is provided for profit and makes interconnected service available (A) to the public or (B) to such classes of eligible users as to be effectively available to a substantial portion of the public, as specified by regulation by the Commission.”²⁵² “Interconnected service,” in turn, is defined as “service that is interconnected with the public switched network (as such terms are defined by regulation by the Commission).”²⁵³ In 1994, the Commission adopted regulations implementing this section, codifying the definition of “commercial mobile service” under the term “commercial mobile radio service” (CMRS).²⁵⁴ Looking at the statute’s text, structure, legislative history, and purpose, the Commission defined the “public switched network” as “[a]ny common carrier switched network, whether by wire or radio, including local exchange carriers, interexchange carriers, and mobile service providers, that use[s] the North American Numbering Plan in connection with the provision of switched services.”²⁵⁵ It defined “interconnected service” as “a service that gives subscribers the capability to communicate . . . [with] *all* other users on the public switched network.”²⁵⁶

67. Section 332 distinguishes commercial mobile service from “private mobile service,” defined as “any mobile service . . . that is not a commercial mobile service or the functional equivalent of a commercial mobile service, as specified by regulation by the Commission.”²⁵⁷ In 1994, the Commission established its functional equivalence test, which starts with a presumption that “a mobile service that does not meet the definition of CMRS is a private mobile radio service.”²⁵⁸ Overcoming this presumption requires an analysis of a variety of factors to determine whether the mobile service in question is the functional equivalent of mobile service, including “consumer demand for the service to determine whether the service is closely substitutable for a commercial mobile radio service; whether changes in price for the service under examination, or for the comparable commercial mobile radio service would prompt customers to change from one service to the other; and market research information identifying the targeted market for the service under review.”²⁵⁹ Emphasizing the high bar it had set, the Commission expected that “very few mobile services that do not meet the definition of CMRS will be a close substitute for a commercial mobile radio service.”²⁶⁰

68. The Act treats providers of commercial mobile service as common carriers,²⁶¹ and the legislative history of the Telecommunications Act suggests that Congress intended the definition of “telecommunications service” to include commercial mobile service.²⁶² In contrast, the Act prohibits the

²⁵² 47 U.S.C. § 332(d)(1).

²⁵³ 47 U.S.C. § 332(d)(2).

²⁵⁴ *Second CMRS Report and Order*, 9 FCC Rcd at 1431–37, paras. 50–60. The commercial mobile service provisions of the Act are implemented in section 20.3 of the Commission’s rules, which uses the term “commercial mobile radio service” (CMRS) instead of “commercial mobile service.” We use “CMRS” and “commercial mobile service” interchangeably here.

²⁵⁵ 47 CFR § 20.3 (2014).

²⁵⁶ 47 CFR § 20.3 (2014) (emphasis added).

²⁵⁷ 47 U.S.C. § 332(d)(3).

²⁵⁸ *Second CMRS Report and Order*, 9 FCC Rcd at 1447, para. 79.

²⁵⁹ 47 CFR § 20.9(a)(14)(ii)(B), (C). We note that, in a companion Order today, we are recodifying these factors under section 20.3 of the Commission’s rules, but not modifying their substance.

²⁶⁰ *Second CMRS Report and Order*, 9 FCC Rcd at 1447, para. 79.

²⁶¹ 47 U.S.C. § 332(c)(1)(A).

²⁶² H.R. Conf. Rep. No. 104-458, 104th Cong., 2nd Sess. 114-15 (1996) (“This definition [of ‘telecommunications service’] is intended to include commercial mobile service.”).

Commission from treating providers of private mobile service as common carriers.²⁶³

69. In 2007, the Commission found that wireless broadband Internet access service was not a commercial mobile service because it did not meet the definition of an “interconnected service” under the Act and the Commission’s rules. It found that wireless broadband Internet access was not “interconnected” with the “public switched network” because it did not use the North American Numbering Plan, which limited “subscribers’ ability to communicate to or receive communication from all users in the public switched network.”²⁶⁴ The Commission concluded that section 332 and the Commission’s rules “did not contemplate wireless broadband Internet access service as provided today” and that a commercial mobile service “must still be interconnected with the local exchange or interexchange switched network as it evolves.”²⁶⁵

70. In the *Title II Order*, the Commission reversed course. First, the Commission changed definitions of two key terms within the definition of commercial mobile service.²⁶⁶ It broadened the definition of the term “public switched network” to include services that use “public IP addresses.”²⁶⁷ And it redefined the term “interconnected service” by deleting the word “all” from the requirement that the service give subscribers the capability to communicate with “all other users on the public switched network,” so that a service would be interconnected even if users of such a service could not communicate with all other users.²⁶⁸ By manipulating these definitions, the Commission engineered a conclusion that mobile broadband Internet access was interconnected with the public switched network and was an interconnected service under section 332.

71. Second, the *Title II Order* found that even if it had not changed the definitions, it could change the scope of the service to meet them. Specifically, the Commission found that “users have the ‘capability’ . . . to communicate with NANP numbers using their broadband connection through the use of VoIP applications.”²⁶⁹ Accordingly it found that, by including services not offered by the mobile broadband Internet access service provider as part of the service, mobile broadband Internet access service would now meet the regulatory definition of “interconnected service” adopted in 1994.

72. Third, the *Title II Order* eschewed the functional equivalence test contained in the Commission’s rules to find that mobile broadband Internet access service was functionally equivalent to commercial mobile service. Rather than apply that test, the Commission reasoned that the two were functionally equivalent because “like commercial mobile service, [mobile broadband Internet access service] is a widely available, for profit mobile service that offers mobile subscribers the capability to send and receive communications on their mobile device to and from the public.”²⁷⁰

73. In the *Internet Freedom NPRM*, the Commission proposed to “restore the meaning of ‘public switched network’ under section 332(d)(2) to its pre-*Title II Order* focus on the traditional public switched telephone network” and “to return to our prior definition of ‘interconnected service.’”²⁷¹ The Commission further proposed to return to the analysis of the *Wireless Broadband Internet Access Order*

²⁶³ 47 U.S.C. § 332(c)(2).

²⁶⁴ *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5917-18, para. 45.

²⁶⁵ *Id.* at 5918, n. 119.

²⁶⁶ *Title II Order*, 30 FCC Rcd at 5778, para. 388.

²⁶⁷ *Id.* at 5779, para. 391.

²⁶⁸ *Id.* at 5779, 5788, 5890, n.1175, paras. 390, 402.

²⁶⁹ *Id.* at 5786, para. 400.

²⁷⁰ *Id.* at 5789, para. 404. In *US Telecom*, the D.C. Circuit had no occasion to address the *Title II Order*’s approach to functional equivalency. 825 F.3d at 717.

²⁷¹ *Internet Freedom NPRM*, 32 FCC Rcd at 4454, paras. 56, 57.

and find that mobile broadband Internet access service was a private mobile service.²⁷² Finally, it proposed to reconsider the *Title II Order*'s departure from the functional equivalence test codified in our rules.²⁷³

74. *Discussion.* We find that the definitions of the terms “public switched network” and “interconnected service” that the Commission adopted in the 1994 *Second CMRS Report and Order* reflect the best reading of the Act, and accordingly, we readopt the earlier definitions. We further find that, under these definitions, mobile broadband Internet access service is not a commercial mobile service.

75. We find that the Commission's original interpretation of “public switched network” was more consistent with the ordinary meaning and commonly understood definition of the term and with Commission precedent.²⁷⁴ On multiple prior occasions before Section 332(d)(2) was enacted, the Commission used the term “public switched network” to refer to the traditional public switched telephone network.²⁷⁵ In 1981, for example, the Commission noted that “the public switched network interconnects all telephones in the country.”²⁷⁶ In 1992, the Commission described its cellular service policy as “encourag[ing] the creation of a nationwide, seamless system, interconnected with the public switched network so that cellular and landline telephone customers can communicate with each other on a universal basis.”²⁷⁷ Courts also used the term “public switched network” when referring to the traditional telephone network.²⁷⁸ Based on this history of usage of the term, the Commission, in 1994, tied its definition of the term “public switched network” to the traditional switched telephone network. We find this approach appropriately reflects the fundamental canon of statutory construction that “unless otherwise defined, words will be interpreted as taking their ordinary, contemporary, common meaning.”²⁷⁹

²⁷² *Id.* at 4455, para. 59.

²⁷³ *Id.* at 4455-56, para. 61.

²⁷⁴ *See, e.g.*, T-Mobile Comments at 16; Verizon Comments at 45.

²⁷⁵ *See, e.g.*, *Applications of Winter Park Tel. Co.*, Memorandum Opinion and Order, 84 FCC 2d 689, 690, para. 2 & n.3 (1981) (*Winter Park Order*); *Amendment of Part 22 of the Commission's Rules Relating to License Renewals in the Domestic Public Cellular Radio Telecommunications Service*, Report and Order, 7 FCC Rcd 719, 720, para. 9 (1992) (*License Renewal Order*); *Provision of Access for 800 Service*, Memorandum Opinion and Order on Reconsideration and Second Supplemental Notice of Proposed Rulemaking, 6 FCC Rcd 5421, para. 1 & n.3 (1991); *Telecommunications Services for Hearing-Impaired and Speech-Impaired Individuals, and the Americans with Disabilities Act of 1990*, Notice of Proposed Rulemaking, 5 FCC Rcd 7187, 7190, para. 20 (1990).

²⁷⁶ *See Winter Park Order*, 84 FCC 2d at 690, para. 2 & n.3.

²⁷⁷ *See License Renewal Order*, 7 FCC Rcd at 720, para. 9.

²⁷⁸ *See Ad Hoc Telecommunications Users Committee v. FCC*, 680 F.2d 790, 793 (D.C. Cir. 1982) (public switched network is the “same network over which regular long distance calls travel”); *Public Util. Comm'n v. FCC*, 886 F. 2d 1325, 1327, 1330 (D.C. Cir 1989) (using the terms “public switched telephone network” and “public switched network” interchangeably).

²⁷⁹ *Perrin v. United States*, 444 U.S. 37, 42 (1979); *see also Evans v. United States*, 504 U.S. 255, 260 n.3 (1992) (Where a ‘word is obviously transplanted from another legal source, whether common law or other legislation, it brings the old soil with it’ (quoting Justice Felix Frankfurter, *Some Reflections on the Reading of Statutes*, 47 Colum. L. Rev. 527, 537 (1947))). We find that the legislative history of the Budget Act further supports this view. One commenter notes that the Budget Act conferees chose the Senate version of the relevant statutory definitions, including the use of the term “public switched network,” over the House version, which used the term “public switched telephone network,” and argues that Congress thereby rejected the latter term. *See* OTI New America Reply Comments at 65-66. We note, however, that the conferees also expressly identified the substantive differences between the House and Senate versions of the definitions, and notably absent from their list was any contrast between the Senate's use of “public switched network” and the House's use of “public switched telephone

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76. We also find that the Commission's prior interpretation is more consistent with the text of section 332(d)(2), in which Congress provided that commercial mobile service must provide a service that is interconnected with "the public switched network."²⁸⁰ We find that the use of the definite article "the" and singular term "network" shows that Congress intended "public switched network" to mean a single, integrated network. We therefore agree with commenters who argue that it was not meant to encompass multiple networks whose users cannot necessarily communicate or receive communications across networks.²⁸¹ Consistent with Congress's directive to define "the public switched network," the restored definition reflects that the public switched network is a singular network that "must still be interconnected with the local exchange or interexchange switched network as it evolves," as opposed to multiple networks that need not be connected to the public telephone network.²⁸² That the Commission's original interpretation better reflects Congressional intent is further evidenced by the fact that, although Congress has amended the Communications Act and Section 332 on multiple occasions since the Commission defined the term, it has never changed the Commission's interpretation.²⁸³

77. We also restore the definition of "interconnected service" that existed prior to the *Title II Order*. Prior to that Order, the term was defined under the Commission's rules as a service "that gives subscribers the capability to communicate to or receive communication from all other users on the public switched network."²⁸⁴ The *Title II Order* modified this definition by deleting the word "all," finding that mobile broadband Internet access service should still be considered an interconnected service even if it only enabled users to communicate with "some" other users of the public switched network rather than all.²⁸⁵ We agree with commenters who argue that the best reading of "interconnected service" is one that enables communication between its users and all other users of the public switched network.²⁸⁶ This reading ensures that the public switched network remains the single, integrated network that we find Congress intended in Section 332(d)(2), as reflected in the statutory definition of "interconnected service" as one that is interconnected with "the public switched network."²⁸⁷

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network," suggesting that the conferees did not view the two terms as a significant difference. See H.R. Conf. Rep. 103-213, 496 (1993).

²⁸⁰ 47 U.S.C. § 332(d)(2) (emphasis added).

²⁸¹ See, e.g., CTIA Comments at 49-50; T-Mobile Comments at 16; Verizon Comments at 46; CTIA Reply Comments at 30-36.

²⁸² *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5918, para. 45, n.119.

²⁸³ See, e.g., Telecommunications Act of 1996, Pub. L. No. 104-104, § 704(b) (amending Section 332 of the Communications Act). Similarly, we do not agree with commenters arguing that the availability and consumer use of Internet applications enabling IP-calls to NANP numbers supports the inclusion of Internet Protocol addresses in the definition of the public switched network. See OTI New America Comments at 84-87. As we further discuss elsewhere in connection with the term "interconnected service," we find the best interpretation is to classify a service under section 332 based solely on the nature of the service provided. Even if we were to consider such applications, however, we find that the NANP and IP address-based networks are and will continue to be distinct and separate networks, and cannot be considered a singular, integrated network as intended by the term "the public switched network." See also T-Mobile Comments at 16-17; Verizon Comments at 48; AT&T Reply Comments at 84. The deployment of the Internet of Things (IoT), for example, will mean a dramatic increase in the number of non-VoIP-capable end-points, such as IP-enabled televisions, washing machines, and thermostats, and other smart devices. See Verizon Comments at 48.

²⁸⁴ 47 CFR § 20.3 (2014) (emphasis added).

²⁸⁵ See *Title II Order*, 30 FCC Rcd at 5787-88, para. 402.

²⁸⁶ See, e.g., AT&T Comments at 94; Verizon Comments at 49.

²⁸⁷ See 47 U.S.C. § 332(d)(2); 47 CFR § 20.3. The *Title II Order* rejected this reading on the ground that the Commission has previously recognized that interconnection services may be limited in certain ways. See *Title II Order*, 30 FCC Rcd at 5787-88, para. 402. While an interconnected service is required to provide its users with the

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78. Some commenters who argue that the *Title II Order's* revised definitions should be maintained point to Congress's delegation of interpretational authority to the Commission and the Commission's previous position that it could define the public switched network based on new technology and consumer demand.²⁸⁸ In defining the terms "public switched network" and "interconnected service" in the *Second CMRS Report and Order*, however, the Commission recognized that commercial mobile service must still be interconnected with the local exchange or interexchange switched network, and it stated that "any switched common carrier service that is interconnected with the traditional local exchange or interexchange switched network will be defined as part of that network for purposes of our definition of 'commercial mobile radio services.'"²⁸⁹ Further, although the *Title II Order* found that the revised definitions adopted at that time were warranted as better reflecting current technological developments, including the "rapidly growing and virtually universal use of mobile broadband service" and the "universal access provided . . . by and to mobile broadband," the Commission expressly noted that its determination was "a policy judgment that section 332(d) expressly delegated to the Commission, consistent with its broad spectrum management authority under Title III."²⁹⁰ We find that this analysis places undue weight on the wide availability of a mobile service, as being effectively available to a substantial portion of the public is merely one of the definitional criteria.²⁹¹ In light of definitional analysis discussed above, as well as the public policy considerations that we have found to support our decision to classify broadband Internet access service as an information service, we find under the same authority that such developments do not persuade us to retain the modified definitions.

79. We find that mobile broadband Internet access service does not meet the regulatory definition of "interconnected service" that the Commission originally adopted in 1994 and which we readopt today, and therefore it does not meet the definition of commercial mobile service. As the Commission found in the *Wireless Broadband Internet Access Order*, "[m]obile wireless broadband Internet access service in and of itself does not provide the capability to communicate with all users of the public switched network" because it does "not use the North American Numbering Plan to access the Internet, which limits subscribers' ability to communicate to or receive communications from *all* users in

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capability to communicate with or receive communication from all other users of the public switched network, the Commission has permitted an interconnected service to restrict access to the public switched network in certain limited ways (such as the blocking of 900 numbers). This limited exception to general access has existed since the original definition of the term "interconnected service" was adopted, and the record does not demonstrate that it has caused confusion or misunderstandings about what services may be considered interconnected. Accordingly, we will continue to apply the definition of "interconnected service" in this fashion, and we see no need to codify language reflecting the exception. We agree with Verizon, however, that "[t]here is a massive difference between limited, targeted restrictions that deny access to certain points on the network and the situation envisioned by the *Title II Order*, where millions of users on what is ostensibly the same network are incapable of reaching each other." Verizon Comments at 49, n.184.

²⁸⁸ AARP Comments at 32-34; NASUCA Comments at 18-20; OTI New America Comments at 79-83; Ryan Blake Comments at 1.

²⁸⁹ *Second CMRS Report and Order*, 9 FCC Rcd at 1436-37, para. 59.

²⁹⁰ *See Title II Order*, 30 FCC Rcd at 5786, para. 399.

²⁹¹ The Commission found that the updated definitions would be consistent with Congress's intent to create a symmetrical regulatory framework among mobile services that were similarly "broadly available" to the public. *See Title II Order*, 30 FCC Rcd at 5786, para. 399. While we agree that Congress intended, in adopting section 332, to regulate similar mobile services symmetrically, we do not believe that Congress intended for the Commission to regulate mobile services symmetrically simply because they are similarly "broadly available." First, being "effectively available to a substantial portion of the public" is a necessary, but not sufficient, requirement for classification as commercial mobile service. Second, as noted, Congress set as the touchstone for regulatory symmetry only those mobile services that are "functionally equivalent."

the public switched network.”²⁹² Accordingly, it is “not an ‘interconnected service’ as the Commission has defined the term in the context of section 332.”²⁹³

80. We disagree with the conclusion in the *Title II Order* that, because an end user can use a separate application or service that rides on top of the broadband Internet access service for interconnected communications, mobile broadband Internet access service meets the definition of “interconnected service.”²⁹⁴ We find that the definition of “interconnected service” focuses on the characteristics of the offered mobile service itself. Thus, the service in question must itself provide interconnection to the public switched network using the NANP to be considered as an interconnected service. Our interpretation is consistent with Commission precedent that, prior to the *Title II Order*, had classified a service based on the nature of the service itself.²⁹⁵ This interpretation is also consistent with section 332(d)(1), which defines commercial mobile service as a service that itself “makes interconnected service available . . . to the public,” and with section 332(d)(2), which defines “interconnected service” as “service that is interconnected with the public switched network.”²⁹⁶ These statutory definitions focus on the functions of the service itself rather than “whether the service allows consumers to acquire other services that bridge the gap to the telephone network.”²⁹⁷

81. Consistent with the Commission’s analysis in the *Wireless Broadband Internet Access Order*, the fact that “consumers are now able to use a variety of Internet-enabled applications that allow

²⁹² *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5917-18, para. 45 (emphasis in original).

²⁹³ *Id.*

²⁹⁴ *See Title II Order*, 30 FCC Rcd at 5786, para. 400.

²⁹⁵ *See, e.g., Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5917-18, paras. 45-46 (recognizing that the regulatory classification of VoIP services is irrelevant to the regulatory classification of the separate mobile broadband Internet access service); *see also Time Warner Cable Request for Declaratory Ruling that Competitive Local Exchange Carriers May Obtain Interconnection under Section 251 of the Communications Act of 1934, as Amended, to Provide Wholesale Telecommunications Services to VoIP Providers*, Memorandum Opinion and Order, 22 FCC Rcd 3513, 3520–21, paras. 15–16 (WCB 2007) (noting the “regulatory classification of the [VoIP] service provided to the ultimate end user has no bearing on” the regulatory status of the entities transmitting [the VoIP] traffic); *see also Worldcall Interconnect, Inc. a/k/a/ Evolve Broadband, Complainant v. AT&T Mobility LLC, Defendant*, Order on Review, FCC 17-113, at 2-3, paras. 4-6 (Sept. 6, 2017) (finding that, where roaming service that complainant requested was use of defendant’s broadband Internet access service, roaming dispute should be governed by data roaming rule rather than the CMRS roaming rule even where complainant sought to use defendant’s broadband Internet access roaming service to provide complainant’s subscribers with switched voice service).

²⁹⁶ 47 U.S.C. § 332(d)(1), (2).

²⁹⁷ Verizon Comments at 47 (emphasis omitted). Thus, we are not persuaded by arguments that “applications such as Google Voice reflect the fully interconnected nature of the mobile broadband and legacy telephone networks.” OTI New America Comments at 84. Our determination reflects that the relevant service must itself be an “interconnected service,” and not merely a capability to acquire interconnection. We further note that viewing broadband Internet access service as a distinct service from application layer services that may be accessed by it, even if the applications are pre-installed in the mobile device offered by the provider, ensures that similar mobile broadband Internet access services are not regulated in a disparate fashion based on what applications a particular provider chooses to install in their offered devices. This is consistent with the fundamental purpose under section 332 of regulatory symmetry between similar mobile services, and also avoids regulatory inconsistencies that would result when mobile devices are brought to a particular service provider by the consumer that do not include the provider’s choice of pre-installed apps. While OTI New America argues that the need to obtain such apps to make an interconnected call does not make mobile broadband Internet access service different from traditional telephone service, which has always required customer premises equipment to complete an interconnected call, *see* OTI New America Reply at 56, we find the analogy inapt. With traditional CMRS, even where consumers obtain their premises equipment or mobile devices separately, the function of interconnection is provided by the purchased mobile service itself.

them to send calls and texts to NANP end-points”²⁹⁸ does not make mobile broadband Internet access service itself an interconnected service as defined by our rules.²⁹⁹ The increased use and availability of mobile VoIP applications does not change the fact that mobile broadband Internet access as a core service is distinct from the service capabilities offered by applications (whether installed by a user or hardware manufacturer) that may ride on top of it.³⁰⁰ When viewed as a distinct service, it is apparent that today’s mobile broadband Internet access service itself does not enable users to reach NANP telephone numbers and therefore cannot be considered an interconnected service.³⁰¹

82. Moreover, in light of the determination above that mobile broadband Internet access service should be restored to its classification as an information service, and consistent with our findings today that reinstating this classification will serve the public interest, we also find that it will serve the public interest for the Commission to exercise its statutory authority to return to its original conclusion that mobile broadband Internet access is not a commercial mobile service.³⁰² No one disputes that, consistent with the Commission’s previous findings, if mobile broadband Internet access service were a commercial mobile service for purposes of section 332 and were also classified as an information service, such a regulatory framework could lead to contradictory and absurd results.³⁰³ Among these problems, as the Commission explained in 2007, is that a contrary reading of the Act would result in an internal contradiction within the statutory framework, because section 332 would require that the service provider be treated as a common carrier insofar as it provides mobile wireless broadband Internet access service, while section 3 clearly would prohibit the application of common carrier regulation of such a service provider’s provision of that service.³⁰⁴ Indeed, the *Title II Order*, like the 2007 *Wireless Broadband Internet Access Order*, recognized and sought to avoid the significant problems in construing section 332 in a manner that set up this “statutory contradiction” with the scope of Title II.³⁰⁵ Construing the CMRS definition to exclude mobile broadband Internet access service as an information service similarly avoids

²⁹⁸ OTI New America Comments at 84.

²⁹⁹ See *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5917-18, para. 45 (finding that, because “users of a mobile wireless broadband Internet access service need to rely on another service or application, such as certain [VoIP] services that rely in part on the underlying Internet access service, to make calls to, and receive calls from, ‘all other users on the public switched network,’” mobile broadband Internet access service is not itself an interconnected service as the Commission has defined the term under section 332).

³⁰⁰ See, e.g., CTIA Comments at 52; Mobile Future Comments at 13; AT&T Reply at 83-84.

³⁰¹ We do not here address whether IP-based services or applications such as Wi-Fi Calling or VoLTE would meet the definition of “interconnected service” under section 332 and the Commission’s rules. We disagree with OTI New America’s argument that the growing availability of Wi-Fi Calling provided by mobile carriers that also offer mobile broadband Internet access service supports the classification of mobile broadband Internet access service as a commercial mobile service. See OTI New America Reply at 57-59. The two are distinct services and subject to separate classification determinations. Similarly, even if providers are increasingly offering voice service and mobile broadband Internet access service together, this does not support classifying and regulating the latter in the same way as the former. OTI New America Reply at 54, 60-61. Providers have long offered multiple services of mixed classification, subject to the rule that they are regulated as common carriers to the extent they offer services that are subject to Title II regulation. See, e.g., 47 U.S.C. § 153(51) (providing that a telecommunications carrier “shall be treated as a common carrier under this chapter only to the extent that it is engaged in providing telecommunications services”).

³⁰² We note that commenters who support the *Title II Order*’s revised definition of “public switched network” do not dispute that Congress expressly delegated authority to the Commission to define the key terms, i.e., “public switched network” and “interconnected service.” See, e.g., AARP Comments at 32-34; NASUCA Comments at 18-20; OTI New America Comments at 79-83.

³⁰³ See *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5919-21, paras. 48–56.

³⁰⁴ See *id.*

³⁰⁵ *Title II Order*, 30 FCC Rcd at 5788, para. 403; *US Telecom*, 825 F.3d at 724.

this contradiction, furthers the Act's overall intent to allow information services to develop free from common carrier regulations, and is consistent with the public policy analysis in connection with our determination to reclassify mobile broadband Internet access as an information service.³⁰⁶ Further, it avoids the absurd result of singling out mobile providers of broadband Internet access service for such common carrier regulation while freeing fixed broadband Internet access services from such regulation, notwithstanding that, as discussed elsewhere in this Order, there is generally greater competition in the provision of mobile broadband Internet access service than in fixed broadband Internet access service.

83. In addition to finding that mobile broadband Internet access is not a commercial mobile service, we also adopt our proposal to reconsider the Commission's analysis regarding functional equivalence in the *Title II Order*.³⁰⁷ We find that the test for functional equivalence adopted in the *Second CMRS Report and Order* reflects the best interpretation of section 332. Under this test, a variety of factors will be evaluated to make a determination whether the mobile service in question is the functional equivalent of a commercial mobile radio service, including: consumer demand for the service to determine whether the service is closely substitutable for a commercial mobile radio service; whether changes in price for the service under examination, or for the comparable commercial mobile radio service would prompt customers to change from one service to the other; and market research information identifying the targeted market for the service under review.³⁰⁸ In contrast, as noted above, the *Title II Order* based its finding of functional equivalence on the notion that "like commercial mobile service, [mobile broadband Internet access] is a widely available, for profit mobile service that offers mobile subscribers the capability to send and receive communications on their mobile device to and from the public."³⁰⁹ Commenters who support the classification of mobile broadband Internet access service as a commercial mobile service similarly contend that mobile broadband Internet access service shares no similarities with other private mobile services such as taxi dispatch services and that, in contrast, "there is no networked service more open, interconnected, and universally offered than mobile broadband Internet access service."³¹⁰

³⁰⁶ See *Federal-State Joint Board on Universal Service*, Report to Congress, CC Docket No. 96-45, 13 FCC Rcd 11501, 11511, para. 21 (1998); see also 47 U.S.C. § 231(e)(4) (excluding "telecommunications services" from the definition of "Internet access service"). We note that wireless services similar to mobile broadband Internet access service were not available in the market place in 1993 when Congress adopted section 332 or, in 1996, when Congress adopted the section 3 definition of "telecommunication carrier."

³⁰⁷ For the same reasons discussed below with respect to our authority to revisit the classification of broadband Internet access service, we disagree with arguments regarding limits on the Commission's ability to revisit the *Title II Order's* findings regarding functional equivalence. See NTCH/Flat Wireless Comments at 16 ("Just as courts are bound by the earlier decisions of the same court, the Commission cannot discard its prior decisions just because it disagrees with them."). In addition, we note that the *Title II Order*, in reaching the conclusion that mobile broadband Internet access was a commercial mobile service, relied in part on the need to avoid a statutory contradiction with its determination that the service was a telecommunications service. See *Title II Order*, 30 FCC Rcd at 5788, para. 403. Given our decision to restore the original classification of mobile broadband Internet access service as an information service, this change additionally warrants revisiting our conclusions with regard to the classification of mobile broadband Internet access service under section 332.

³⁰⁸ See 47 CFR § 20.9(14)(ii)(B); *Second CMRS Report and Order*, 9 FCC Rcd at 1447-48, para. 80. We again note that we are recodifying these factors under section 20.3 of the Commission's rules, but not modifying their substance.

³⁰⁹ *Title II Order*, 30 FCC Rcd at 5789, para. 404. The order added that "both mobile broadband Internet access service and commercial mobile service provide their users with a service that enables ubiquitous access to the vast majority of the public." *Id.* at 5790, para. 407.

³¹⁰ OTI New America Comments at 76-77; see also OTI New America Comments at 95-96 & n.269 (pointing out differences between mobile broadband Internet access service and private mobile services regulated under Part 90 of the Commission's rules). We note that the statute directs us to determine whether mobile broadband Internet access

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84. We believe the codified test of functional equivalence hews much more faithfully to the intent of Congress.³¹¹ If Congress meant for widespread public access to a widely used service to be the determining factor for what is “functionally equivalent” to a commercial mobile service, it would not have included being “interconnected with the public switched network” in the statutory definition of the service.³¹² Although the Commission has discretion to determine whether services are functionally equivalent, we find that the *Title II Order*’s reliance on the public’s “ubiquitous access” to mobile broadband Internet access service alone was insufficient to establish functional equivalency. In contrast, the test established in the *Second CMRS Report and Order* provides a thorough consideration of other factors that are indicative of whether a service is closely substitutable in the eyes of consumers for a commercial mobile service.³¹³

85. Applying the test adopted by the Commission in the *Second CMRS Report and Order*, we find that mobile broadband Internet access service today is not the functional equivalent of commercial mobile service as defined by the Commission.³¹⁴ We note again that, under this test, services not meeting the definition of commercial mobile service are presumed to be not functionally equivalent, a presumption particularly intuitive here in light of the functional differences between traditional commercial mobile services like mobile voice and today’s mobile broadband services. The evidence on demand substitutability only reinforces this presumption. First, mobile broadband Internet access service and traditional mobile voice services have different service characteristics and intended use. Consumers purchase mobile broadband Internet access service to access the Internet, on-line video, games, search engines, websites, and various other applications, while they purchase mobile voice service solely to make calls to other users using NANP numbers. Pricing and marketing information similarly support the conclusion that today mobile broadband Internet access service and traditional mobile voice services are not “closely substitutable.” Such evidence suggests, for example, that mobile service providers target different types of customer groups when advertising voice, as opposed to mobile broadband Internet access service.³¹⁵ Moreover, at this time, voice-only mobile services tend to be much less expensive than mobile broadband Internet access services, and they appear to be targeted to consumers who seek low-cost mobile service.³¹⁶ Currently, for example, unlimited voice and text only plans may range from \$15 to \$25 per month.³¹⁷ In contrast, unlimited mobile broadband Internet plans may range from \$60 to \$90

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is functionally equivalent to a commercial mobile service, not whether it is functionally dissimilar from certain systems classified as private mobile.

³¹¹ See *Second CMRS Report and Order*, 9 FCC Rcd at 1447, paras. 78, 79.

³¹² 47 U.S.C. §§ 332(d)(1), 332(d)(2).

³¹³ *Second CMRS Report and Order*, 9 FCC Rcd at 1447-48, para. 80.

³¹⁴ See 47 U.S.C. § 332(d)(3). We make a conforming revision to the definition of “commercial mobile radio service” in section 20.3 of the Commission’s rules to reflect our determination that mobile broadband Internet access service is not the functional equivalent of commercial mobile service.

³¹⁵ *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Nineteenth Report, 31 FCC Rcd 10534, 10615, para. 112 (WTB 2016) (describing industry efforts to target budget-minded consumers relying on non-smartphones).

³¹⁶ See, e.g., Cricket Wireless, *Cell Phone Plans*, <https://www.cricketwireless.com/cell-phone-plans> (promoting availability of “Talk & Text-No Data Access” plan, “Not a smartphone user? Talk & Text keeps it simple with unlimited calls and texts - no data access.”); Republic Wireless, *Plans*, <https://republicwireless.com/cell-phone-plans> (offering 0 GB plan for “Talk & Texters”).

³¹⁷ See, e.g., Cricket Wireless, *Cell Phone Rate Plans*, <https://www.cricketwireless.com/cell-phone-plans>; Republic Wireless *Plans*, <https://republicwireless.com/cell-phone-plans/>.

per month for a single line.³¹⁸ Nothing in the record suggests that changing the price for one service by a small but significant percentage would prompt a significant percentage of customers to move to the other service.³¹⁹ Accordingly, under the functional equivalence standard adopted in the *CMRS Second Report and Order*, we find that mobile broadband Internet access today is not the functional equivalent of commercial mobile service. The two services have different service characteristics and intended uses and are not closely substitutable for each other, as evidenced by the fact that changes in price for one service generally will not prompt significant percentages of customers to change from one service to the other.

C. Public Policy Supports Classifying Broadband Internet Access Service As An Information Service

86. While our legal analysis concluding that broadband Internet access service is best classified as an information service under the Act is sufficient grounds alone on which to base our classification decision, the public policy arguments advanced in the record and economic analysis reinforce that conclusion. We find that reinstating the information service classification for broadband Internet access service is more likely to encourage broadband investment and innovation, furthering our goal of making broadband available to all Americans and benefitting the entire Internet ecosystem. For almost 20 years, there was a bipartisan consensus that broadband should remain under Title I,³²⁰ and ISPs cumulatively invested \$1.5 trillion in broadband networks between 1996 and 2015.³²¹ During that period of intense investment, broadband deployment and adoption increased dramatically, as the combined number of fixed and mobile Internet connections increased from 50.2 million to 355.2 million from 2005 to 2015,³²² and even as early as 2011, a substantial majority of Americans had access to broadband at home.³²³ As of 2016, roughly 91 percent of homes had access to networks offering 25 Mbps,³²⁴ and there

³¹⁸ *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, WT Docket No. 17-69, Twentieth Report, at 39, Chart III.A.1, FCC 17-126 (Sept. 27, 2017).

³¹⁹ AT&T Comments at 92; CTIA Comments at 53; Verizon Comments at 49-50.

³²⁰ See, e.g., National Multicultural Organizations Comments at 8 (citing a speech by 1999 Chairman Kennard, William E. Kennard, Chairman, FCC, *Remarks Before the Federal Communications Bar Northern California Chapter* (July 20, 1999), <https://transition.fcc.gov/Speeches/Kennard/spwek924.html>; *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, et al.*, Policy Statement, 20 FCC Rcd 14986 (2005) (*Four Principles Statement*); *2010 Open Internet Order*, 25 FCC Rcd at 17931, para. 43; USTelecom Comments at 2; Cisco Comments at 5.

³²¹ USTelecom Comments at 3 (citing USTelecom, *Broadband Investment*, <http://www.ustelecom.org/broadband-industry/broadbandindustry-stats/investment> (“Broadband provider network capital expenditures in 2015 were \$76 billion . . . [w]ith investments totaling around \$1.5 trillion since 1996. . . .”). Commenters who cite the recent explosion in online video streaming services as evidence of the need for Title II regulation ignore the fact that the growth of online video streaming services was largely made possible by the network investments made under Title I, and as such demonstrates instead the success of the longstanding light-touch framework under Title I. *Compare* Free Press Comments at 87 with NCTA Reply at 19 (“Free Press fails to recognize the massive network investments and upgrades undertaken by BIAS providers *before* the *Title II Order*—when the Title I framework remained in place—were primarily responsible for the explosion of streaming video services.”).

³²² Comcast Comments, Appx. A (citing FCC, *Internet Access Services Report: Status as of December 31, 2015*, at 2; FCC, *Internet Access Services Report: Status as of December 31, 2010*, at 3; FCC, *High-Speed Services for Internet Access: Status as of December 31, 2005*, at 1 (all reporting connections over 200 kbps in at least one direction)).

³²³ 95.7 percent of Americans live in a census block that at least one ISP reports supplying Internet access at speeds of at least 25 Mbps down and 3 Mbps up. See FCC Form 477 Subscription Data, December 2016; U.S. Census Bureau, 2010 Census Data, Summary File 1, <https://www.census.gov/2010census/data/>; Cisco Comments at 3, n.9 (citing Kathryn Zickuhr and Aaron Smith, *Home Broadband 2013*, Pew Research Center (Aug. 26, 2013), <http://www.pewinternet.org/2013/08/26/home-broadband-2013/#fn-40-5> (“[A]bout 98% of U.S. households live in areas where they have access to broadband Internet connections as of July 2011.”)).

were 395.9 million wireless connections, twenty percent more than the U.S. population.³²⁵ Mobile data speeds have also dramatically increased, with speeds increasing 40-fold from the 3G speeds of 2007.³²⁶ Cable broadband speeds increased 3,200 percent between 2005 and 2015,³²⁷ while prices per Mbps fell by more than 87 percent between 1996 and 2012.³²⁸

87. Based on the record in this proceeding, we conclude that economic theory, empirical studies, and observational evidence support reclassification of broadband Internet access service as an information service rather than the application of public-utility style regulation on ISPs. We find the Title II classification likely has resulted, and will result, in considerable social cost, in terms of foregone investment and innovation. At the same time, classification of broadband Internet access service under Title II has had no discernable incremental benefit relative to Title I classification.³²⁹ The regulations promulgated under the Title II regime appear to have been a solution in search of a problem. Close examination of the examples of harm cited by proponents of Title II to justify heavy-handed regulation reveal that they are sparse and often exaggerated. Moreover, economic incentives, including competitive pressures, support Internet openness. We find that the gatekeeper theory, the bedrock of the *Title II Order*'s overall argument justifying its approach, is a poor fit for the broadband Internet access service market. Further, even if there may be potential harms, we find that pre-existing legal remedies, particularly antitrust and consumer protection laws, sufficiently address such harms so that they are outweighed by the well-recognized disadvantages of public utility regulation. As such, we find that public policy considerations support our legal finding that broadband Internet access service is an information service under the Act.

1. Title II Regulation Imposes Substantial Costs on the Internet Ecosystem

88. The Commission has long recognized that regulatory burdens and uncertainty, such as those inherent in Title II, can deter investment by regulated entities and, until the *Title II Order*, its regulatory framework for cable, wireline, and wireless broadband Internet access services reflected that reality.³³⁰ This concern is well-documented in the economics literature on regulatory theory, and the record also supports the theory that the regulation imposed by Title II will negatively impact investment. The balance of the evidence in the record suggests that Title II classification has reduced ISP investment in the network, as well as hampered innovation, because of regulatory uncertainty. The record also demonstrates that small ISPs, many of which serve rural consumers, have been particularly harmed by Title II. And there is no convincing evidence of increased investment in the edge that would compensate for the reduction in network investment.

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³²⁴ USTelecom Comments at 5-6.

³²⁵ CTIA Comments at 3.

³²⁶ Verizon Comments, Exh. A at 24 (citing CTIA, "Wireless Snapshot 2017," available at <https://www.ctia.org/docs/default-source/default-documentlibrary/ctia-wireless-snapshot.pdf>).

³²⁷ NCTA Comments at 29.

³²⁸ NCTA Comments at 30 (citing Comments of Comcast Corp., GN Docket No. 12-228, at 12 (filed Sep. 20, 2012)).

³²⁹ For a summary comparison of benefits and costs, *see infra* Part V.

³³⁰ *See Cable Modem Order*, 17 FCC Rcd at 4802, para. 5; *Wireline Broadband Classification Order*, 20 FCC Rcd at 14865, para. 19; *BPL-Enabled Broadband Order*, 21 FCC Rcd at 13285, paras. 7-8; *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5902, para. 2 (2007). Congress has similarly recognized the burdens associated with regulation. For example, the 1996 Act states its purpose is to "reduce regulation," and directs the Commission to regularly review regulations and repeal those it deems unnecessary or harmful to investment, competition, and the public interest. Preamble to Telecommunications Act of 1996, Pub. L. No 104-104, 110 Stat. 56 (1996); 47 U.S.C. §§ 161, 257.

89. *Investment by ISPs.* As the Commission has noted in the past, increased broadband deployment and subscribership require investment, and the regulatory climate affects investment.³³¹ The mechanisms by which public utility regulation can depress investment by the regulated entity are well-known in the regulatory economics literature. The owners of network infrastructure make long-term, irreversible investments. In theory, public utility regulation is intended to curb monopoly pricing just enough that the firm earns a rate of return on its investments equivalent to what it would earn in a competitive market. In practice, public utility regulation can depress profits below the competitive rate of return for a variety of reasons. This reduction in the expected return reduces the incentive to invest.³³² Importantly, the risk that regulation might push returns below the competitive level also creates a disincentive for investment.³³³

90. We first look to broadband investment in the aggregate and find that it has decreased since the adoption of the *Title II Order*. ISP capital investment increased each year from the end of the recession in 2009 until 2014, when it peaked.³³⁴ In 2015, capital investment by broadband providers appears to have declined for the first time since the end of the recession in 2009.³³⁵ And investment levels fell again in 2016—down more than 3 percent from 2014 levels.³³⁶ Although declines in broadband capital investments have occurred in the past with changes in the business cycle, the most recent decline is particularly curious given that the economy has not experienced a recession in recent years but rather has been growing. While observing trends in the data by itself cannot establish the cause of directional movements, the stark trend reversal that has developed in recent years suggest that changes to the regulatory environment created by the *Title II Order* have stifled investment. Fortunately, the record contains a variety of other studies, using different methodologies which seek to determine how imposition of public-utility style regulation might affect ISPs' investments.

91. Comparisons of ISP investment before and after the *Title II Order* suggest that reclassification has discouraged investment. Performing such a comparison, economist Hal Singer

³³¹ See *Inquiry Concerning High-Speed Access to the Internet Over Cable & Other Facilities; Internet Over Cable Declaratory Ruling; Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities*, GN Docket No. 00-185, CS Docket No. 02-52, Declaratory Ruling and Notice of Proposed Rulemaking, 17 FCC Rcd 4798, 4802 para. 5 (2002) (*Cable Modem Order*) (“Second, we believe ‘broadband services should exist in a minimal regulatory environment that promotes investment and innovation in a competitive market.’ In this regard, we seek to remove regulatory uncertainty that in itself may discourage investment and innovation. And we consider how best to limit unnecessary and unduly burdensome regulatory costs.”), quoting *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities, Universal Service Obligations of Broadband Providers*, CC Docket No. 02-33, Notice of Proposed Rulemaking 17 FCC Rcd 3019, 3022 para. 5 (2002).

³³² See Graeme Guthrie, *Regulating Infrastructure: The Impact on Risk and Investment*, 44 J. of Economic Literature 925, 950-51 (2006). This article provides a survey of the economic literature on the ways regulation can affect investment.

³³³ *Id.* at 954.

³³⁴ See Patrick Brogan, *Broadband Investment Continues Trend Down in 2016*, Research Brief (Oct. 31, 2017), <https://www.ustelecom.org/sites/default/files/documents/Broadband%20Investment%20Trending%20Down%20in%202016.pdf>.

³³⁵ *Id.*

³³⁶ *Id.*; see also Anna-Maria Kovacs, *The Effect of Title II Classification on Wireless Investment* (July 2017), <http://cbpp.georgetown.edu/sites/cbpp.georgetown.edu/files/Kovacs%20-%20Title%20II%20and%20wireless%20investment.pdf> (finding that “in the last three years wireless capital investment (capex) has slowed, with a precipitous decline in 2016” that “coincided with and was likely caused at least in part by investors’ and the industry’s reaction to” the *Title II Order*’s “common-carrier regulation [of] mobile broadband”).

concluded that ISP investment by major ISPs fell by 5.6 percent between 2014 and 2016.³³⁷ Singer attempted to account for a few significant factors unrelated to Title II that might affect investment, by subtracting some investments that are clearly not affected by the regulatory change (such as the accounting treatment of Sprint's telephone handsets, AT&T's investments in Mexico, and DirecTV investments following its acquisition by AT&T in the middle of this period).³³⁸ In contrast, Free Press presents statistics³³⁹ that it claims demonstrate that broadband deployment and ISP investment "accelerated"³⁴⁰ to "historic levels"³⁴¹ after the Commission approved the *Title II Order*. But Free Press fails to account for factors such as foreign investment and the appropriate treatment of handsets as capital expenditures, as Singer did.

92. A comparative assessment that adjusted the Free Press and Singer numbers so that they covered the same ISPs, spanned the same time period, and subtracted investments unaffected by the regulatory change, found that both sets of numbers demonstrate that ISP investment fell by about 3 percent in 2015 and by 2 percent in 2016.³⁴² A Free State Foundation calculation using broadband capital expenditure data for 16 of the largest ISPs reached a result similar to Singer's, but this analysis simply compared actual ISP investment to a trend extrapolated from pre-2015 data.³⁴³ These types of comparisons can only be regarded as suggestive, since they fail to control for other factors that may affect investment (such as technological change, the overall state of the economy, and the fact that large capital investments often occur in discrete chunks rather than being spaced evenly over time,) and companies may take several years to adjust their investment plans. Nonetheless, these comparisons are consistent with other evidence in the record that indicates that Title II adversely affected broadband investment.³⁴⁴

93. The record also contains work attempting to assess the predicted causal effects of Title II regulation on ISP investment and/or output.³⁴⁵ Some of these studies are "natural experiments" that seek

³³⁷ See Hal J. Singer, *2016 Broadband Capex Survey: Tracking Investment in the Title II Era* (Mar. 1, 2017), <https://haljsinger.wordpress.com/2017/03/01/2016-broadband-capex-survey-tracking-investment-in-the-title-ii-era/>.

³³⁸ However, Singer's calculations do not control for some factors that influence investment, such as the "lumpiness" of capital investment and technological change. See, e.g., AARP Comments at 51-54.

³³⁹ Free Press Comments at 86-144.

³⁴⁰ Free Press Comments at 86.

³⁴¹ Free Press Comments at 86.

³⁴² Doug Brake, *Broadband Myth Series, Part 1: What Financial Data Shows About the Impact of Title II on Investment*, ITIF (June 2, 2017), <https://itif.org/publications/2017/06/02/broadband-myth-series-part-1-what-financial-data-shows-about-impact-title->.

³⁴³ See *Broadband Investment Slowed by \$5.6 Billion Since Open Internet Order*, Free State Foundation (May 5, 2017), <http://freestatefoundation.blogspot.com/2017/05/broadband-investment-slowed-by-56.html>.

³⁴⁴ A separate comparison of the United States' ISP investment with ISP investment in Europe also suggests that ISP investment might decline if the U.S., under the *Title II Order*, moves toward a regulatory system more like Europe's. A USTelecom research brief finds that European investment per capita is about 50 percent lower than broadband investment in the U.S. per capita. See Patrick Brogan, *Utility Regulation and Broadband Network Investment: The EU and US Divide*, Research Brief (Apr. 25, 2017). As some commenters point out, this study compares the U.S. with the much more regulatory European system, which includes mandatory unbundling at regulated rates. Thus, it presents a picture of how investment could change if the U.S. moves toward the European system under Title II, not an assessment of the direct results of the *Title II Order*. See, e.g., AARP Comments at 60.; USTelecom at 1, The brief does not control for other factors that could explain investment. *Utility Regulation and Broadband Network Investment* at 4; AARP Comments at 59.

³⁴⁵ An additional type of evidence is the effect of the *Title II Order* on stock prices. Robert W. Crandall, *The FCC's Net Neutrality Decision and Stock Prices*, 50 Rev. of Industrial Org. 555, 560-573 (Feb. 11, 2017). According to that study, in the short term, the decision appears to have had little direct effect on stock prices, except for a few cable ISPs. That may reflect the forward-looking, predictive capabilities of market players.

to compare outcomes occurring after policy changes to a relevant counterfactual that shows what outcomes would have occurred in the absence of the policy change. No single study is dispositive, but methodologies designed to estimate impacts relative to a counterfactual tend to provide more convincing evidence of causal impacts of Title II classification. Having reviewed the record of these studies, the balance of the evidence indicates that Title II discourages investment by ISPs—a finding consistent with economic theory.³⁴⁶

94. Prior FCC regulatory decisions provide a natural experiment allowing this question to be studied. Scholars employing the natural experiment³⁴⁷ approach found that prior to 2003, subscribership to cable modem service (not regulated under Title II) grew at a far faster rate than subscribership to DSL Internet access service (the underlying ‘last mile’ facilities and transmission for which were regulated under Title II).³⁴⁸ After 2003, when the Commission removed line-sharing rules on DSL, DSL Internet access service subscribership experienced a statistically significant upward shift relative to cable modem service.³⁴⁹ A second statistically significant upward shift in DSL Internet access service subscribership relative to cable modem service occurred after the Commission classified DSL Internet access service as an information service in 2005.³⁵⁰ This evidence suggests that Title II discourages not just ISP investment, but also deployment and subscribership, which ultimately create benefits for consumers. While some commenters contend that deployment and subscribership continued to increase after the *Title II Order*, such that nothing is amiss,³⁵¹ this casual observation does not compare observed levels of subscribership and deployment to a relevant counterfactual that controls for other factors.

95. An assessment of how ISP investment reacted to news of impending Title II regulation suggests that the threat of Title II regulation discouraged ISP investment. Such statistical analysis allows one to compare the actual level of investment with a counterfactual estimate of what investment would have been in the absence of the change in risk. This study found that Chairman Genachowski’s 2010 announcement of a framework for reclassifying broadband under Title II—a credible increase in the risk of reclassification that surprised financial markets—was associated with a \$30 billion-\$40 billion annual decline in investment in the U.S. Bureau of Economic Analysis’ “broadcasting and telecommunications” category between 2011 and 2015.³⁵² The study attributes the decline to the threat of Title II regulation, rather than net neutrality *per se*, because no similar decline occurred when the FCC adopted the Four Principles to Promote an Open Internet in 2005.³⁵³ Because the study’s measure of investment data covers the entire broadcasting and telecom industries,³⁵⁴ the change in investment measured in his study

³⁴⁶ See Graeme Guthrie, *Regulating Infrastructure: The Impact on Risk and Investment*, 44 J. of Economic Literature 925 (2006). The record does not provide sufficient evidence to quantify the size of the effect of Title II on investment.

³⁴⁷ A natural experiment research approach seeks to use a plausibly exogenous source of policy variation between groups (a treated and control) to estimate the effect of the policy. This seeks to identify a counterfactual situation where the policy was not in effect against which the treated group can be compared. See Bruce D. Meyer, *Natural and Quasi-Experiments in Economics*, 13 Journal of Business & Economic Statistics 151 (1995).

³⁴⁸ Thomas W. Hazlett & Joshua D. Wright, *The Effect of Regulation on Broadband Markets: Evaluating the Empirical Evidence in the FCC’s 2015 ‘Open Internet’ Order*, 50 Rev. of Industrial Org. 487, 499 (2017) (Hazlett and Wright).

³⁴⁹ *Id.*

³⁵⁰ *Id.* at 499-500

³⁵¹ Free Press Comments at 91-125.

³⁵² George S. Ford, Net Neutrality, Reclassification and Investment: A Counterfactual Analysis, Phoenix Center Perspectives at 2 (Apr. 25, 2017), <http://www.phoenix-center.org/perspectives/Perspective17-02Final.pdf>.

³⁵³ *Id.* at 7-8.

³⁵⁴ AARP Comments at 105-06.

might be larger than the change in broadband investment associated with the threat of Title II regulation. Accordingly, the findings may be a more reliable indicator of the direction of the change in investment than the absolute size of the change. At the very least, the study suggests that news of impending Title II regulation is associated with a reduction in ISP investment over a multi-year period.

96. Some commenters have argued that this study does not identify the effect of Title II on ISP investment, because the ‘last mile’ facilities and transmission underlying DSL Internet access service (essentially incumbent LEC broadband supply) was under Title II before 2005, during the study’s pre-treatment period.³⁵⁵ However, to the extent that a fraction of the industry was subject to Title II (and at the time the bulk of broadband subscribers used cable modem services that were not regulated under Title II), this would imply Ford’s negative result for investment were understated.³⁵⁶

97. The study is also disputed by the Internet Association, which submitted an economic study arguing that the threat and eventual imposition of Title II status on broadband Internet service providers in 2010 and 2015 did not have a measurable impact on telecommunications investment in the US.³⁵⁷ While we appreciate the alternative method and data sources introduced by that study, several elements lead us to discount its findings. The estimation of the impact of events in both 2010 and 2015 relies partially on forecast rather than actual data, which likely lessens the possibility of finding an effect of Title II on investment.³⁵⁸ In addition, when examining cable and telecommunications infrastructure investment in the U.S., the study relies on a regression discontinuity over time model, thereby eliminating the use of a separate control group to identify the effect of policy changes. We believe use of such a model in these circumstances is unlikely to yield reliable results.³⁵⁹

98. In light of the foregoing record evidence, we conclude that reclassification of broadband Internet access service from Title II to Title I is likely to increase ISP investment and output. The studies in the record that control the most carefully for other factors that may affect investment (the Ford study and the Hazlett and Wright study) support this conclusion. Consequently, we disagree with commenters who assert that Title II has increased or had no effect on ISP investment, given the complexity of

³⁵⁵ AARP comments at 56-57; Joan Nix, Bruce McNevin, & David Gabel Comments at 7 (Nix *et al.* Comments) (“[Ford’s paper] does not address the fact that between the years of 1980 and 2005, wireline carriers provided Internet access as a Title II service.”). One commenter points out the pre-treatment period was one in which, for a period, DSL was subject to particularly heavy-handed Title II regulation. Nix *et al.* at 7. Again, this means Ford would have underestimated the impacts of a move from pure absence of Title II regulation and its threat. Finally, that same commenter asks, “why would ISP investment decline in 2010-2015, when Title II regulation was considered, but not implemented, relative to the non-treatment years [1980-2009] when Title II regulation was in-place for wireline carriers, and considered but not adopted for cable modem service?” Nix *et al.* at 7-8. However, they provide no basis for the question’s premise.

³⁵⁶ Between 1999 and 2002, there were roughly twice as many cable modem subscribers as DSL subscribers. DSL Internet access service started achieving a much larger market share after the FCC removed line-sharing regulations from DSL in 2003. Hazlett and Wright at 498-99.

³⁵⁷ Internet Association Comments at 12.

³⁵⁸ The Internet Association study claims that its test of the 2010 effect did not use forecast data. However, comparing the reported number of observations in Tables B1 and B2 of the study clearly indicates that the same datasets were used to estimate 2010 and 2015 effects. Furthermore, we note that the Phoenix Center attempted to replicate the results of Table B1 and obtained strikingly different results when excluding the forecast data. Unfortunately, the Phoenix Center chose to only estimate Hooton’s baseline model, which did not control for obviously confounding factors such as the business cycle, and therefore we place limited weight on the Phoenix Center’s revisions. See George Ford, *A Further Review of the Internet Association’s Empirical Study on Network Neutrality and Investment*, Phoenix Center Perspectives 17-10 (Aug. 14, 2017).

³⁵⁹ See Catherine Hausman and David S. Rapson, *Regression Discontinuity in Time: Considerations for Empirical Applications*, NBER Working Paper No. 23602 (July 2017), <http://www.nber.org/papers/w23602>.

corporate decision-making and the macroeconomic effects that can play a role in investment cycles.³⁶⁰ We also disagree with commenters who assert that it may be too soon to meaningfully assess the economic effects that Title II has had on broadband infrastructure investment.³⁶¹

99. *Regulatory Uncertainty.* The evidence that Title II has depressed broadband investment is bolstered by other record evidence showing that Title II stifled network innovation. Among the unseen social costs of regulation are those broadband innovations and developments that never see the light of day. ISP investment does not simply take the form of greater deployment, but can also be directed toward new and more advanced services for consumers. Research and development is an inherently risky part of any business, and the Commission's actions should not introduce greater uncertainty and risk into the process without a clear need to do so. Numerous commenters have stated that the uncertainty regarding what is allowed and what is not allowed under the new Title II broadband regime has caused them to shelve projects that were in development, pursue fewer innovative business models and arrangements, or delay rolling out new features or services. Even large ISPs with significant resources have not been immune to the dampening effect that uncertainty can have on a firm's incentive to innovate. Charter, for instance, has asserted that it has "put on hold a project to build out its out-of-home Wi-Fi network, due in part to concerns about whether future interpretations of Title II would allow Charter to continue to offer its Wi-Fi network as a benefit to its existing subscribers."³⁶² Cox has also stated that it has approached the "development and launch of new products and service features with greater caution" due to the uncertainty created by the Title II classification.³⁶³ And while new service offerings can take a while to develop and launch, Comcast cites "Title II overhang" as a burden that delayed the launch of its IP-based transmission of its cable service, due to a year-long investigation.³⁶⁴

100. Utility-style regulation is particularly inapt for a dynamic industry built on technological development and disruption. It is well known, "extensive regulation distorts production as well as consumption choices."³⁶⁵ Regulated entities are inherently restricted in the activities in which they may engage, and the products that they may offer. Asking permission to engage in new activities or offer new products or services quickly becomes a major preoccupation of the utility.³⁶⁶ Within the communications

³⁶⁰ MFRConsulting Reply at 2.

³⁶¹ *Id.* at 4; AARP Comments at 59.

³⁶² Charter Comments at 11 (explaining that future interpretations of Title II could risk investments it has already made, or might soon make, demonstrating Title II's effect of not only inhibiting capital investment, but also deterring market entry, resulting in depressed competition).

³⁶³ Cox Comments at 2-3, 16 (explaining that its parent company has had to divert resources to other areas of the business that are not facing such investment risk); *see also* Comcast Comments at 37 (characterizing the regulatory uncertainty as a "Sword of Damocles hanging over every service-related decision," with the effect that new services are either not launched at all, or are significantly delayed).

³⁶⁴ Comcast Comments at 37.

³⁶⁵ *See, e.g.,* Graeme Guthrie, *Regulating Infrastructure: The Impact on Risk and Investment*, 44 J. of Economic Literature 925 (2006). Technology Policy Institute Comments at 6 (discussing the problems other industries have experienced with heavy utility-regulation: the Interstate Commerce Commission's initially regulated railroads, and then trucking, once trucking began to compete with rail, negatively affecting both industries, as trucking "became a legal cartel with no incentive to innovate," and "regulations prevented railroad companies from adapting, driving several into bankruptcy," all to the ultimate detriment of the public).

³⁶⁶ This is apparent upon a casual observation of heavily-regulated utilities, such as the U.S. power, water, and mass transit systems. *See* Downes Comments at 13. These are industries where competition has been effectively deemed impossible, run by quasi-public monopolies that lack incentives to invest, innovate, or even properly maintain their facilities. *Id.* at 13 (citing heavily-regulated power utilities as an example of the effects of over-regulation. As power utilities lack financial incentive to find innovative solutions, many see "efficient solar power not as a potentially better and cheaper solution but rather as an 'existential threat', the beginning, according to the trade group Edison Electric Institute, of 'a death spiral' for its members.").

industry, it is apparent that the most-regulated sectors, such as basic telephone service, have experienced the least innovation, whereas those sectors that have been traditionally free to innovate, such as Internet service, have greatly evolved.³⁶⁷ In the communications industry, incumbents have often used Commission regulation under the direction of the “public interest” to thwart innovation and competitive entry into the sector and protect existing market structures.³⁶⁸ Given the unknown needs of the networks of the future, it is our determination that the utility-style regulations potentially imposed by Title II run contrary to the public interest.

101. The record confirms that concern about “regulatory creep”—whereby a regulator slowly increases its reach and the scope of its regulations—has exacerbated the regulatory uncertainty created by the *Title II Order*. Even at the time of adoption, the Commission itself did not seem to know how the *Title II Order* would be interpreted.³⁶⁹ As then-Chairman Wheeler stated in February 2015, “we don’t really know. No blocking, no throttling, no fast lanes. Those can be bright-line rules because we know about those issues. But we don’t know where things go next.”³⁷⁰ With future regulations open to such uncertainties, Title II regulation adds a risk premium on each investment decision, which reduces the expected profitability of potential investments and deters investment.³⁷¹ For example, the *Title II Order* did not forbear from *ex post* enforcement actions related to subscriber charges, raising concerns that *ex post* price regulation was very much a possibility.³⁷² Further, providers have asserted that although the Commission forbore from the full weight of Title II in the *Title II Order*, they were less willing to invest due to concerns that the Commission could reverse course in the future and impose a variety of costly regulations on the broadband industry—such as rate regulation and unbundling/open access requirements—placing any present investments in broadband infrastructure at risk.³⁷³ These concerns were compounded by the fact that while the *Title II Order* itself announced forbearance from *ex ante* price regulation, at the same time it imposed price regulation with its ban on paid prioritization

³⁶⁷ *Id.* at 15 (highlighting the discrepancy between the unregulated computing world and the world of basic telephone service; as computing “exploded,” basic telephone “limped along,” with basic innovations such as call forwarding and caller ID requiring both a partial deregulation following the 1982 MFJ, and decades of federal and state approval).

³⁶⁸ Roslyn Layton, Bronwyn Howell, *How Title II Harms Consumers and Innovators*, AEI.org, at 9-10 (July 14, 2017) (describing radio spectrum awarded on basis of public interest, prior to advent of auctions, and broadcasters using the Commission to fight the development of cable television).

³⁶⁹ Comcast Dippon Paper at 21-22.

³⁷⁰ Statement of Tom Wheeler, Former Chairman, FCC, Press Conference (Feb. 26, 2015), <https://www.c-span.org/video/?c4534447/wheeler-general-conduct-standard>.

³⁷¹ Verizon Comments, Exhib. A, at 9-10; AT&T Economic Declaration at 53; ACA Comments at 26-27 (“Upgrades require very large capital investments that must be spread over a long period of time Even if the current Commission were unlikely to rate regulate broadband Internet access, uncertainty about what the next Commission might do in that regard” means that the investment certainty period is very short.”).

³⁷² AT&T Economic Declaration at 44-45; NCTA Owen Declaration at 11-12 (the *Title II Order* left in place the prohibition on “unreasonable” and “discriminatory” practices found in Sections 201 and 202 (via the general conduct standard), leaving the door open for *ex post* enforcement of a standard with no precedent in the broadband context); AT&T Comments at 51 (the Commission only provided a list of non-exhaustive factors and also said it would consider other, unnamed factors).

³⁷³ Comcast Dippon Paper at 22; Charter Comments at 7; CTIA Comments at 7-8; Comcast Comments at 34; ACA Comments at 25 (explaining that, given past regulation of the cable industry, the Commission’s claims that it would refrain from rate regulation were “simply not believable.”); Free State Foundation Comments Appx. A, Perspectives from FSF Scholars, at 4 (Apr. 17, 2017) (asserting that even the potential for future rate regulation or forced access will impede investment into networks). *See, e.g., Business Data Services in an Internet Protocol Environment*, Report and Order, 32 FCC Rcd 3459, 3534-3535, paras. 171-172 (2017) (reversing the forbearance deemed granted to Verizon related to enterprise broadband services).

arrangements, which mandated that ISPs charge edge providers a zero price. These threats to the ISP business model have been felt throughout financial markets. As Craig Moffett of MoffettNathanson explained, “[i]t would be naïve to suggest that the implication of Title II, particularly when viewed in the context of the FCC’s repeated findings that the broadband market is non-competitive, doesn’t introduce a real risk of price regulation.”³⁷⁴ These risks are not merely theoretical: as CenturyLink contends, financial analysts lowered its stock ratings due in part to the major risks Title II posed to the industry, which resulted in lower stock prices and lost market capitalization.³⁷⁵

102. For these reasons, “any rational ISP will think twice before investing in innovative business plans that might someday be found to violate the Commission’s undisclosed policy preferences and thus give rise to a cease-and-desist order and perhaps massive forfeiture penalties.”³⁷⁶ We conclude that this ever-present threat of regulatory creep is substantially likely to affect the risk calculus taken by ISPs when deciding how to invest their shareholders’ capital, potentially deterring them from investing in broadband, and to encourage them to direct capital toward less inherently-risky business operations.³⁷⁷ We find unpersuasive the alleged inconsistencies between ISPs claiming that the *Title II Order* decreased their willingness or ability to invest in broadband infrastructure, and their statements to investors that the *Title II Order* has not had a negative impact on their broadband deployments.³⁷⁸ First, some of the comments claiming that corporate officers’ statements to investors prove that Title II has increased investment use highly selective quotations that ignore other statements to investors that imply the opposite.³⁷⁹ Second, as other commenters point out, the latter often constitute statements susceptible to multiple interpretations, such as AT&T CEO Randall Stephenson stating that his company planned to “deploy more fiber next year than [it] did this year.”³⁸⁰ Third, these ambiguous statements do not take into account the relevant counterfactual scenario in which Title II regulation had not been adopted.³⁸¹ Fourth, we observe that some of the comments attempting to highlight a discrepancy between statements to investors and statements in this proceeding simply show executives stating that their business *practices* will not change because they were not engaged in the conduct prohibited by the *Title II Order*, not that the firms’ investment priorities remained the same after the *Title II Order*.³⁸²

103. *Small ISPs and Rural Communities.* The Commission’s decision in 2015 to reclassify broadband Internet access service as a telecommunications service has had particularly deleterious effects on small ISPs and the communities they serve, which are often rural and/or lower-income. The record

³⁷⁴ CenturyLink Comments at 14, n 34.

³⁷⁵ CenturyLink Comments at 13-14.

³⁷⁶ AT&T Comments at 53; AT&T Reply at 47 (AT&T had reasoned that its zero-rating of DIRECTV customers’ data would be uncontroversial, as it was effectively a bundled rebate arrangement, and wholly pro-consumer. They were thus surprised to find the program under a lengthy investigation by the Commission.). As such, we disagree with commenters who assert that maintaining the *Title II Order* regime is the best means of addressing regulatory uncertainty. See Home Telephone Company Comments at 17; CCIA Comments at 26-27; Internet Association Comments at iii.

³⁷⁷ Verizon Comments, Lerner Declaration at 9-10. Many ISPs are part of integrated multi-sector holding companies, which allows them to more easily shift capital away from sectors where their investments would face greater regulatory risk, and toward more investment-friendly sectors. Cox Comments at 16.

³⁷⁸ Free Press Comments at 3; Public Knowledge Comments at 21; BBIC Comments at 4-5; INCOMPAS Comments at 12.

³⁷⁹ George S. Ford, *Below the Belt: A Review of Free Press and the Internet Association’s Investment Claims*, Phoenix Center for Advanced Legal and Policy Studies Perspectives (June 20, 2017).

³⁸⁰ R Street Institute Reply at 7.

³⁸¹ *Id.* at 7-8.

³⁸² *Id.* at 8.

reflects that small ISPs and new entrants into the market face disproportionate costs and burdens as a result of regulation.³⁸³ Many small ISPs lack the extensive resources necessary to comply with burdensome regulation,³⁸⁴ and the record evinces a widespread consensus that reclassification of broadband Internet access service as a telecommunications service has harmed small ISPs by forcing them to divert significant resources to legal compliance and deterring them from taking financial risks.³⁸⁵

104. Small ISPs state that these increased compliance costs and regulatory burdens have forced them to divert money and attention away from planned broadband service and network upgrades and expansions, thus delaying, deferring, or forgoing the benefits they would have brought “to their bottom lines, their customers, and their communities.”³⁸⁶ A coalition of National Multicultural Organizations highlights that the uncertainty inherent under Title II “already has produced results that slow needed innovation and broadband adoption, effects that are most acutely felt in rural and socioeconomically-challenged urban communities.”³⁸⁷ The record is replete with instances in which small ISPs reduced planned, or limited new, investment in broadband infrastructure as a result of the regulatory uncertainty stemming from the adoption of the *Title II Order*.³⁸⁸ The Wireless Internet Service

³⁸³ See, e.g., WISPA Comments at 10, 17 (“WISPs typically rely on their own money, family and friends, and in some cases, local financing. Private equity is available to very few WISPs.”); ACA Comments at 25-26 (explaining that many small service providers have their houses and cars pledged against their bank loans financing their businesses).

³⁸⁴ See, e.g., National Grange Comments at 2; WISPA Comments at 13-14 (asserting that larger companies do not face such extreme challenges since they have large compliance departments and resources that can handle subscriber complaints); ACA Comments at 15-16 (“While a large provider with tens of millions of subscribers likely has the wherewithal to either absorb or litigate . . . fines, for a company with under 10,000 subscribers . . . a huge fine can be devastating.”).

³⁸⁵ See CompTIA Comments at 5; ACA Comments at iii (“Following Title II reclassification, ACA members spent significant resources and incurred unexpected legal and consulting costs in trying to understand the impact of the decision and what it meant for their existing and planned services, and in taking steps to minimize the risk of enforcement actions and consumer complaints.”); ACA Comments at 7-8 (asserting that the Commission’s application of Sections 201 and 202 to broadband forced smaller ISPs to hire consultants and outside counsel to evaluate whether their existing rates, terms, conditions and practices were in conformity with the Act and assess the risk that they could later be judged to be out of compliance as a result of changes in the market or other external factors); ACA Comments at 7-13 (“Just the risk of an enforcement action under Section 208 required [one small ISP] to increase the amount of time and money . . . spent on legal services and recordkeeping and, going forward, requires [the ISP] to ensure funds are always available” in the event of enforcement actions.); WISPA Comments at 13-14 (asserting that small ISPs are forced to pay lawyers and consultants “to provide advice and direction to minimize any risk” that they will be judged after-the-fact to be out of compliance as the rules are so complex and difficult to fathom); Small Business & Entrepreneurship Council Comments at 4; WISPA Reply at 3; TIA Reply at 6 (asserting that the general conduct standard overburdens small ISPs with the need to involve counsel in every business decision).

³⁸⁶ ACA Comments at ii.

³⁸⁷ National Multicultural Organizations Comments at 10.

³⁸⁸ See, e.g., National Grange Comments at 2 (asserting that ISPs serving predominantly rural and underserved communities in Indiana, Arkansas, southwest Virginia, Washington State, northern Illinois and Missouri all curbed plans to expand high-speed internet deployment, citing the *Title II Order* as their reasoning); National Grange May 8, 2017 *Ex Parte* Letter at 3-4 (asserting that one small ISP that serves rural Arkansas, “had plans to triple its customer base by deploying a fixed wireless network across a three-county area, but the company was forced to forgo on that plan because of the risks associated with the Commission’s Title II rules and the accompanying compliance costs”); NCTA Reply at 17-18 (asserting that “smaller cable operators, with even more limited resources to devote to compliance with the nebulous general conduct standard, have been even more reluctant to take risks and thus have foregone various pro-consumer initiatives”); ACA Comments at 19-20, 22 (explaining that the threat of enforcement caused small ISPs to “abandon [the] use of data caps as a network management tool altogether,” and to abandon consideration of a caching arrangement . . . which would have benefited its customers by lowering its cost

(continued....)

Providers Association (WISPA) surveyed its members and found that over 80% had “incurred additional expense in complying with the Title II rules, had delayed or reduced network expansion, had delayed or reduced services and had allocated budget to comply with the rules.”³⁸⁹ The threat of *ex post* rate regulation has hung particularly heavily on the heads of small ISPs, “who are especially risk-averse, causing them to run all current and planned offerings against the ‘just’ and ‘reasonable’ and unreasonably discriminatory standards of Sections 201 and 202 of the Act.”³⁹⁰ The effects have been strongly felt by small ISPs, given their more limited resources, leading to depressed hiring in rural areas most in need of additional resources.³⁹¹

105. Compounding the difficulties faced by small ISPs, the record also reflects that the “‘black cloud’ of common carriage regulations” resulted in increased difficulties for small ISPs in obtaining financing.³⁹² A coalition of 70 small wireless ISPs cited the uncertainty created by the *Title II Order* as a major reason that their costs of capital have risen, preventing them from further expanding and improving their networks.³⁹³ The new regulatory burdens, risks, and uncertainties combined with “diminished access to capital create a vicious cycle—the regulatory burdens make it more difficult to attract capital, and less capital makes it more difficult to comply with regulatory burdens.”³⁹⁴ A coalition of 19 municipal ISPs cited high legal and consulting fees necessary to navigate the *Title II Order*, as well as regulatory compliance risk as a reason for delaying or abandoning new features and services.³⁹⁵ While, of course, not all small ISPs have faced these challenges,³⁹⁶ there is substantial record evidence that regulatory

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of Internet transport); ACA Comments at 25; Antietam Comments at 1; Coalition of 65 Comments at 3; Ken Cuccinelli Comments at 7; Mobile Future Comments at 8; Fiber Broadband Association Comments at Appendix 23; CTIA Comments at 27; ACA Comments at 23-24 (explaining that numerous ACA member companies had plans to upgrade their fiber systems, but had to curtail the scope of the plan, delay, or hold off altogether as a result of the threat of rate regulation); CALinnovates Comments at 6-7; ACA Reply at 9-12; Letter from 19 Municipal ISPs, May 11, 2017, at 2 (citing the Title II classification as a substantial burden, requiring them to hire lawyers to navigate the risks, and “often delay or hold off from rolling out a new feature or service because [they] cannot afford to deal with a potential complaint and enforcement action.”); WISPA Reply at 7; TIA Reply at 6. *But see* Home Telephone Company Comments at 6-7, 18 (asserting “the main driver for smaller provider’s investment decisions is the rapidly failing federal universal support system”); *see also* Community Technology Advisory Board Comments at 3 (arguing that “a more likely explanation for ISPs’ reluctance to invest in broadband infrastructure . . . may be the lack of competition among last-mile ISPs”); ILSR Comments at 4 (asserting that there is little incentive to upgrade infrastructure in areas where there is little competition).

³⁸⁹ WISPA Comments at 14.

³⁹⁰ ACA Comments at iii.

³⁹¹ ACA Comments at 27 (discussing members’ decreased “ability to invest in hiring staff as a result of the reclassification order”); ACA Reply at 9-10.

³⁹² *See, e.g.*, Cisco Comments at 9; ACA Comments at 16 (asserting that Title II reclassification was factored into the calculation of lending institutions, negatively impacting small ISPs’ ability to get outside funding); ACA Reply at 3.

³⁹³ Letter from Mark Radabaugh, President, Amplex, et al., to The Honorable Ajit Pai, Chairman, The Honorable Mignon Clyburn, Commissioner, The Honorable Michael O’Rielly, Commissioner, Federal Communications Commission, WC Docket No. 17-108, May 9, 2017, at 2 (Letter from 70 Small ISPs).

³⁹⁴ Letter from 70 Small ISPs at 1.

³⁹⁵ Letter from 19 Municipal ISPs at 2.

³⁹⁶ *See, e.g.*, Public Knowledge Comments at 81-82; ILSR Comments at 3; Home Telephone Company Comments at 6, 7; AARP Comments at 66-67, 70-71; Free Press Comments at 263-75; CCIA Comments at 15; City and County of San Francisco Comments at 7-8; Free Press Comments at 105-06, 110, 111-14, 118-20, 142, 149, 232-41; New Media Rights Comments at 8-9; Volo Broadband Comments at 1; Benton Foundation *Ex Parte* Letter at 4 (May 3, 2017); Public Knowledge Reply at 19.

uncertainty resulting from the Commission's reclassification of broadband Internet access service in 2015 risks stifling innovation, and that it has already done so with respect to small ISPs, which ultimately harms consumers.

106. We anticipate that the beneficial effects of our decision today to restore the classification of broadband Internet access service to an information service will be particularly felt in rural and/or lower-income communities, giving smaller ISPs a stronger business case to expand into currently unserved areas.³⁹⁷ Enabling ISPs to freely experiment with services and business arrangements that can best serve their customers, without excessive regulatory and compliance burdens, is an important factor in connecting underserved and hard-to-reach populations. We are committed to bridging the digital divide, and recognize that small ISPs “disproportionately provide service in rural and underserved areas where they are either the only available broadband service option or provide the only viable alternative to an incumbent broadband provider.”³⁹⁸ We anticipate that returning broadband Internet access service to a light-touch regulatory framework will help further the Commission's statutory imperative to “encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans”³⁹⁹ by helping to incentivize ISPs to expand coverage to underserved areas.⁴⁰⁰

107. *Investment at the Edge.* Finally, to more fully discern the impact of Title II, we must look at investment throughout the broadband ecosystem, including investment and innovation at the edge, as well as with other ecosystem participants (manufacturers, etc.).⁴⁰¹ We agree with commenters who assert that looking only at ISP investment ignores investment that is occurring at the edge.⁴⁰² While there is tremendous investment occurring at the edge,⁴⁰³ the record does not suggest a correlation between edge

³⁹⁷ See WISPA Comments at 16; ACA Comments at 29.

³⁹⁸ See WISPA Reply at 6; see also Cisco Systems Comments at 9 (detailing how small ISPs were better able to invest under Title I); ACA Comments at 25-26; WISPA Comments at 26 (explaining how many WISPs are using less-valued spectrum to wirelessly connect sparsely populated regions “that would otherwise be unserved by wireline technologies”).

³⁹⁹ 47 U.S.C. § 1302(a).

⁴⁰⁰ Cf., e.g., League of United Latin American Citizens Comments at 2 (“[B]y raising costs, reducing broadband investment and discouraging innovative cost sharing solutions such as Zero rating, Title II has likely slowed down progress at closing the digital divide rather than accelerating it.”); Cisco Comments at 9 (noting that a coalition of broadband providers explained that the uncertainty surrounding the Title II regulatory framework hindered their ability to meet their customers' needs, and inhibited their ability to “build and operate networks in rural America”).

⁴⁰¹ Comments of Ad Hoc Coalition of 17 Small and Mid-Size Manufacturers of Products for Broadband Networks at 3-4 (while diminished ISP investment from Title II hurts all hardware companies, small companies suffer disproportionately as they usually only manufacture products for a single industry, and their revenue is usually dependent on a smaller number of customers); *id.* at 4 (their publicly-traded members must warn their stockholders that the *Title II Order* “may result in fewer opportunities for [them] to sell [their] products to both current and prospective customers.”); Letter from Actiontec at 1 (Aug. 29, 2017) (“a manufacturer of consumer products for the Internet and a Minority Business Enterprise,” highlighting the negative effect that the *Title II Order* has on its business); Letter from Coalition of 15 High-Tech Manufacturers at 2 (Aug. 30, 2017) (“the effects of depressed infrastructure investment extends to many adjacent sectors—connectivity-driving high-tech manufacturing most of all.”); Ericsson Comments at 7 (describing how regulatory uncertainty under the *Title II Order* impeded its ability to collaborate with ISPs on various network technology initiatives).

⁴⁰² AARP Comments at 78; AARP Reply at 26; INCOMPAS Comments at 39; Economides Comments at 3.

⁴⁰³ Comcast Comments at 6 (“[E]dge providers have experienced explosive growth, with virtually every online content provider seeing massive increases in market capitalization while the Commission maintained a light regulatory touch under its prior Title I classification of BIAS.”); Cox Comments at 15 (“The growth in edge services enabled by increasingly robust and ubiquitous broadband networks has been . . . dramatic. By the end of 2014, venture capital funding for Silicon Valley reached nearly \$20 billion, up from roughly \$6 billion in 2005. Among other innovations, the rise of video streaming services has been particularly noteworthy. By 2015, more than 88

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provider investment and Title II regulation, nor does it suggest a causal relationship that edge providers have increased their investments as a result of the *Title II Order*. Free Press argues that since adoption of the *Title II Order*, innovation and investment at the edge has increased.⁴⁰⁴ While high growth rates are associated with the Internet industry, the evidence presented does not show the imposition of Title II regulation on Internet access service providers caused recent edge provider investment. That requires an estimate as to what would have happened in the absence of Title II regulation (e.g., analysis following the methods employed in the studies of Ford, and of Hazlett and Wright).

108. In fact, one could argue that in the absence of Title II regulation, edge providers would have made even higher levels of investment than they undertook. In many cases, the strongest growth for a firm or industry predates the *Title II Order*. For example, Free Press highlights that the data processing, hosting, and related services industry increased capital expenditures by 26% in 2015,⁴⁰⁵ a significant increase in investment. However, in 2013, well prior to the 2014 *Open Internet NPRM* that led to the *Title II Order*, that industry increased investment by over 100%. Similarly, Netflix's greatest relative increase in capital expenditures occurred in 2013.⁴⁰⁶ Amazon increased its spending on technology and content, which consists primarily of research and development expenses, by 28% in 2016, while in 2013 the increase was 41%.⁴⁰⁷ We do not claim that these data points prove that edge provider investment would have been greater in the absence of the *Title II Order*, but we find that Free Press does not demonstrate that there is a significant difference in the investment behavior of edge providers due to the *Title II Order*.

2. Utility-Style Regulation of Broadband Is a Solution in Search of a Problem

109. *The Internet was open before Title II, and many economic factors support openness.* The Internet thrived for decades under the light-touch regulatory regime in place before the *Title II Order*, as ISPs built networks and edge services were born. We find that the sparse evidence of harms discussed in the *Title II Order*—evidence repeated by commenters in this proceeding as the basis for adopting a Title II classification—demonstrates that the incremental benefits of Title II over light-touch regulation are inconsequential, and pale in comparison to the significant costs of public-utility regulation.⁴⁰⁸

110. The Internet as we know it developed and flourished under light-touch regulation. It is self-evident that the hypothetical harms against which the *Title II Order* purported to protect did not thwart the development of the Internet ecosystem. Edge providers have been able to disrupt a multitude of markets—finance, transportation, education, music, video distribution, social media, health and fitness, and many more—through innovation, all without subjecting the networks that carried them to onerous utility regulation. It is telling that the *Title II Order* and its proponents in this proceeding can point only

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million Americans subscribed to an online video distribution service—a category that did not even exist a decade earlier. And the percentage of Internet traffic devoted to online video spiked from 12 percent to 76 percent between 2006 and 2015.”); NCTA Comments at 28 (“[T]he Commission’s deliberate policy of minimal regulation [prior to 2015] was an unqualified success, as ISPs and edge providers made massive investments.”); Writers Guild of America West Comments at 2 (“With unfettered access to consumers, edge providers have invested billions in new content, services and applications.”).

⁴⁰⁴ Free Press Comments at 170-208.

⁴⁰⁵ *Id.* at 174, citing the Census Bureau’s Annual Capital Expenditure Survey.

⁴⁰⁶ *Id.* at 180.

⁴⁰⁷ *Id.* at 184. According to Amazon’s 10-K filing with the SEC, the increase was 44% in 2013. See Amazon Inc., Annual Report (Form 10-K) (2013).

⁴⁰⁸ CenturyLink Comments at 8; AT&T Economic Declaration at 10. We therefore reject the argument that sparse evidence of harms is sufficient to justify the imposition of Title II. See IFTA Comments at 7 (“[Comcast-BitTorrent] may be “only one” incident—but it is illustrative of the risk that no new start-up video service and no consumer can afford to take.”).

to a handful of incidents that purportedly affected Internet openness, while ignoring the two decades of flourishing innovation that preceded the *Title II Order*.⁴⁰⁹

111. The first instance of actual harm cited by the *Title II Order* involved Madison River Communications, a small DSL provider accused in 2005 of blocking ports used for VoIP applications, thereby foreclosing competition to its telephony business. Madison River entered into a consent decree with the Enforcement Bureau, paying \$15,000 to the U.S. Treasury and agreeing that it “shall not block ports used for VoIP applications or otherwise prevent customers from using VoIP applications.”⁴¹⁰ Vonage, an over-the-top VoIP provider, later confirmed in press reports that it had initiated a complaint against Madison River at the Commission and that other small ISPs had blocked its VoIP services.⁴¹¹

112. Next, the *Title II Order* referenced Comcast’s throttling of BitTorrent, a peer-to-peer networking protocol. Comcast, which was at the time the nation’s second-largest ISP, admitted that it interfered with about a tenth of BitTorrent TCP connections, and independent investigations suggested that Comcast interfered with over half of BitTorrent streams.⁴¹² After receiving a formal complaint about the practice, the Commission found “that Comcast’s conduct poses a substantial threat to both the open character and efficient operation of the Internet, and is not reasonable,” and ordered Comcast to cease the interference.⁴¹³ However, the D.C. Circuit vacated the Commission’s order in *Comcast*.⁴¹⁴

113. *Madison River* and *Comcast-BitTorrent*—the anecdotes most frequently cited in favor of Title II regulation—demonstrate that any problematic conduct was quite rare.⁴¹⁵ The more recent incidents discussed in the *Title II Order* also show that since 2008, few tangible threats to the openness of the Internet have arisen.⁴¹⁶ First, in 2012, AT&T restricted customers on certain data plans from

⁴⁰⁹ See *Title II Order*, 30 FCC Rcd at 5628, n.123.

⁴¹⁰ *Madison River Communications*, File No. EB-05-IH-0110, Order, 20 FCC Rcd 4295 (Enforcement Bur. 2005) (*Madison River Order*).

⁴¹¹ Declan McCullagh, *Telco agrees to stop blocking VoIP calls*, CNET (Mar. 3, 2005) <https://www.cnet.com/news/telco-agrees-to-stop-blocking-voip-calls/>.

⁴¹² *Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications; Broadband Industry Practices; Petition of Free Press et al. for Declaratory Ruling that Degrading an Internet Application Violates the FCC’s Internet Policy Statement and Does Not Meet an Exception for “Reasonable Network Management,”* File No. EB-08-IH-1518, WC Docket No. 07-52, Memorandum Opinion and Order, 23 FCC Rcd 13028, 13030, para. 5 (2008) (*Comcast-BitTorrent Order*).

⁴¹³ *Id.* at 13058, para. 51. While the Commission found that OVDs using BitTorrent were a “competitive threat to cable operators such as Comcast,” there are strong arguments that Comcast interfered with BitTorrent in an attempt to manage its network, rather than to disadvantage OVDs. See NCTA Reply at 28 (asserting that “the intervention was not motivated by any anticompetitive objective, as even critics of Comcast concede”) (citing Harold Feld, “Evaluation of the Comcast/BitTorrent Filing — Really Excellent, Except For The Gapping [*sic*] Hole Around the Capacity Cap” (Sept. 22, 2008) (“[I]t appears to me that Comcast did not block for anticompetitive reasons.”)), <http://www.wetmachine.com/tales-of-the-sausage-factory/evaluation-of-thecomcastbittorrent-filing-really-excellent-except-for-the-gapping-hole-around-the-capacity-cap/>).

⁴¹⁴ *Comcast*, 600 F.3d at 642.

⁴¹⁵ See Daniel Oglesby Comments at 1; AT&T Comments at 19–20; Comcast Reply at 29; ITIF Reply at 12; TPI Comments at 4; AT&T Reply at 17; cf. R Street Comments at 13 (“[M]any have argued that we have had *de facto* Net Neutrality for decades, because norms of transparency and fairness led broadband providers and edge providers to engage in open and fair competition, even without regulations.”) (citing Timothy B. Lee, *The Durable Internet: Preserving Network Neutrality Without Regulation*, Cato Policy Analysis at 12 (Nov. 12, 2008)).

⁴¹⁶ Indeed, three of the handful of concrete incidents cited in the *Title II Order* were cited in the *Open Internet Order*. *Open Internet Order*, 25 FCC Rcd at 17925, nn. 104–05. See AT&T Comments at 20–21 (“That the *Title II Order* had to rely on these “incidents” in the first place speaks volumes about the weakness of its purported empirical justification for reclassification.”).

accessing FaceTime on its cellular network for three months.⁴¹⁷ AT&T contended it did so due to network management concerns,⁴¹⁸ while application developers argued the restriction limited consumer choice. Regardless of the merits, AT&T ultimately reversed its decision within three months and the decision did not affect consumers who had data caps.⁴¹⁹

114. The final example—though not an example of harm to consumers—discussed in the *Title II Order* was Comcast’s Xfinity TV application for the Xbox, which was criticized for exempting subscribers from their Comcast data caps. However, the service was provided as a specialized service, similar to certain VoIP and video offerings that use IP but are not delivered via the public Internet.⁴²⁰ Accordingly, the Xfinity Xbox application was not subject to the 2010 or 2015 rules, as it was a so-called “non-BIAS data service.”⁴²¹ However, the *Title II Order* further clouded this carve-out for innovative services by threatening to enforce the rules adopted under the *Order* against ISPs if it deemed after the fact, that those services were “functional equivalents” of broadband Internet access services, as the *Open Internet Order* had done in 2010.⁴²²

115. Certain commenters have claimed that there have been other harms to Internet openness, but most of their anecdotes do not entail harms that the *Title II Order* purported to combat.⁴²³ EFF and the Internet Engineers point to a number of alleged practices by ISPs, including stripping encryption from certain communications, inserting JavaScript code into third-party webpages, sending search data to third parties, and adding cookies.⁴²⁴ However, none of the bright-line rules promulgated in the *Title II Order* would have halted these practices, and whether they are covered by the “general conduct rule” is at best unclear.⁴²⁵

⁴¹⁷ See *Title II Order*, 30 FCC Rcd at 5628, n.123.

⁴¹⁸ See Jim Cicconi, AT&T Senior Executive Vice President of External and Legislative Affairs, *A Few Thoughts on FaceTime* (Nov. 8, 2012), <https://www.attpublicpolicy.com/broadband/a-few-thoughts-on-facetime/>.

⁴¹⁹ *Id.*

⁴²⁰ See AT&T Comments at 20 (The *Title II Order* “did not mention that the Comcast Xbox service—much like AT&T’s U-verse IP video service or Comcast’s Stream service today—is a managed video service delivered over a closed network, not an over-the-top service delivered over the broadband Internet platform. The Commission has always carved such “specialized services” out of the scope of its net neutrality rules, including in the *Title II Order* itself.”); AT&T Reply at 20 (Comcast’s Xbox Xfinity was a “specialized service delivered over a closed IP platform.”); Jon Peha Comments at 14 (“A communications service can be considered a specialized service under Open Internet rules if the service is only used to provide a service that is subject to telephone regulations or to cable TV regulations.”).

⁴²¹ See *Title II Order*, 30 FCC Rcd at 5696–97, para. 208–09; *Open Internet Order*, 25 FCC Rcd at 17965–66, paras. 112–114.

⁴²² *Title II Order*, 30 FCC Rcd at 5697, para. 210; *Open Internet Order*, 25 FCC Rcd at 17966, para. 113.

⁴²³ See New Media Rights Comments at 10 (AT&T used web-streaming program that censored politically-charged Pearl Jam lyrics in 2007). We also reject the argument that evidence of harms in foreign countries is relevant in this proceeding. See Engine Comments at 20–21 (Canadian ISP blocked website of striking union, European ISPs restrict access to P2P and VoIP applications); Microsoft Comments at 14–15 (Skype blocked or degraded in foreign countries). As AT&T argues, that *Title II* proponents “perceive any need to cite these . . . foreign ‘incidents’ . . . simply underscores the paucity of ‘problems’ that require a regulatory solution of any kind.” AT&T Reply at 19. We also recognize the existence of consumer complaints, but for the reasons discussed in Part VI.B below, we do not find them indicative of actual harm that the Commission’s net neutrality rules are intended to protect against.

⁴²⁴ See EFF Comments at 14–15; Internet Engineers Comments at 34–40.

⁴²⁵ See *infra* para. 245. Similarly, the claim among several commenters that certain mobile providers blocked Google Wallet is misleading. See, e.g., OTI New America Comments at 11-13; New Media Rights Comments at 10; Engine Comments at 20. Mobile providers refused to support Google Wallet because it required integration with the secure element of the handset’s SIM card, which mobile providers believed introduced security vulnerabilities. See

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116. Because of the paucity of concrete evidence of harms to the openness of the Internet, the *Title II Order*⁴²⁶ and its proponents have heavily relied on purely speculative threats.⁴²⁷ We do not believe hypothetical harms, unsupported by empirical data, economic theory, or even recent anecdotes, provide a basis for public-utility regulation of ISPs.⁴²⁸ Indeed, economic theory demonstrates that many of the practices prohibited by the *Title II Order* can sometimes harm consumers and sometimes benefit consumers; therefore, it is not accurate to presume that all hypothetical effects are harmful.⁴²⁹ Intrusive, investment-inhibiting Title II regulation requires a showing of actual harms, and after roughly fifteen years of searching, proponents of Title II have found “astonishing[ly]” few.⁴³⁰ Further, the transparency rule we adopt today will require ISPs to clearly disclose such practices and this, coupled with existing consumer protection and antitrust laws, will significantly reduce the likelihood that ISPs will engage in actions that would harm consumers or competition. To the extent that our approach relying on transparency requirements, consumer protection laws, and antitrust laws does not address all concerns, we find that any remaining unaddressed harms are small relative to the costs of implementing more heavy-handed regulation.

117. *Incentives.* We find, based on the record before us, that ISPs have strong incentives to preserve Internet openness, and these interests typically outweigh any countervailing incentives an ISP

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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/>; AT&T Reply at 17-18; Will Rinehart Comments at 3. OTT’s argument about AT&T blocking Slingbox—which “redirected a TV signal” to the iPhone app—from its 3G network in 2009 fails to provide support for Title II regulation for a similar reason, because as AT&T explained at the time, “we don’t restrict users from going to a Web site that lets them view videos. But what our terms and conditions prohibit is the transferring, or slinging, of a TV signal to their personal computer or smartphone.” See Engadget, *AT&T issues official statement on SlingPlayer’s 3G blackout for iPhone*, (May 12, 2009), <https://www.engadget.com/2009/05/12/atandt-issues-official-statement-on-slingplayers-3g-blackout-for/>. In an attempt to manage its 3G network, AT&T restricted slinging to Wi-Fi, while reiterating that consumers could still access video streaming websites.

⁴²⁶ See *Title II Order*, 30 FCC Rcd at 5629, para. 128 (“[B]roadband providers *are in a position* to function as a gatekeeper . . . [and] *can* exploit this role by acting in ways that may harm the open Internet); *id.* at 5632, para. 82 (“Broadband providers *may seek* to gain economic advantages by favoring their own or affiliated content . . . Such practices *could result* in so-called ‘tolls’ for edge providers . . .); *id.* at 5645, para. 103 (“Paid prioritization agreements . . . *have the potential* to distort the market”) (emphases added).

⁴²⁷ See, e.g., Public Knowledge Comments at 76, 101 (an “ISP . . . *can* economically compel an edge service to pay monopoly rates”; “Absent clear instruction from the FCC, broadband providers *will* interfere with consumers’ ability to get online”); INCOMPAS Comments at 23 (“*I* imagine a broadband provider that owns or has a financial interest in the success of an upstream supplier of network-dependent goods or services. . . . Disadvantaging *could* take the form of foreclosure, but it *could* also involve more subtle economic forms of preference . . .); Internet Engineers Comments at 31 (“ISPs *could* degrade . . . certain protocols, content, or websites. . . . ISPs *could* decide to violate the end-to-end principle. . . . Developers and engineers *would no longer* be able to depend on the core assumption that the Internet will treat all data equally.”) (emphases added); ACLP Comments at 6 (“Net neutrality rules have always been framed as prophylactic protection against ‘threats’ rather than actual harms.”).

⁴²⁸ See, e.g., AT&T Comments at 21–22 (“[A] purely speculative claim of need for market intervention at some point in the future cannot outweigh the certain costs of imposing such regulation today.”)

⁴²⁹ See *infra* paras. 251-258.

⁴³⁰ See *USTelecom*, 825 F.3d at 761–62 (Williams, J., dissenting); *Verizon*, 740 F.3d at 664–65 (Silberman, J., dissenting) (“That the Commission was able to locate only four potential examples of such conduct is, frankly, astonishing. In such a large industry where, as Verizon notes, billions of connections are formed between users and edge providers each year, one would think there should be ample examples of just about any type of conduct.”). Indeed, the comments of a major ISP’s CEO to a business magazine more than ten years ago figures prominently in the arguments of some Title II proponents. See, e.g., Microsoft Comments at 12–13; Techdirt Comments at 6.

might have.⁴³¹ Consequently, Title II regulation is an unduly heavy-handed approach to what at worst are relatively minor problems. Although the *Title II Order* argued that ISPs were incentivized to harm edge innovation,⁴³² it also conceded that ISPs benefit from the openness of the Internet. The *Title II Order* found that “when a broadband provider acts as a gatekeeper, it actually chokes consumer demand for the very broadband product it can supply.”⁴³³ We agree. The content and applications produced by edge providers often complement the broadband Internet access service sold by ISPs, and ISPs themselves recognize that their businesses depend on their customers’ demand for edge content.⁴³⁴ It is therefore no surprise that many ISPs have committed to refrain from blocking or throttling lawful Internet conduct notwithstanding any Title II regulation.⁴³⁵ Finally, to the extent these economic forces fail in any particular situation, existing consumer protection and antitrust laws additionally protect consumers.⁴³⁶ We therefore find that Title II, and the attendant utility-style regulation of ISPs, are an unnecessarily

⁴³¹ See, e.g., Entertainment Software Association Comments at 8 (“Open Internet protections are most needed when broadband providers have an incentive to use their special position to advantage their own services. Without recourse against such anti-competitive behavior, third-party providers would be disadvantaged in reaching customers with competing online services.”); INCOMPAS Comments at 8, 23–24 (“Disadvantaging unaffiliated content providers is a well-recognized form of action that can harm competition and consumers.”); Peha Light-Touch Regulation Comments at 3 (“A BIAS provider can also extract monopoly or oligopoly rents from content, application, service or device markets even if the BIAS provider does not compete directly in any of these markets.”); AARP Reply at 32 (“Under the ICE theory, a broadband platform provider will recognize the efficiencies that it gains from encouraging providers of complements (such as over-the-top video) on its broadband platform. . . . However, the ICE theory breaks down when the platform owner produces its own versions of the complementary services, and thus faces competition from the third-party providers for its own complementary services. Under those circumstances, the internalization of complementary efficiencies is outweighed by the broadband ISP’s desire to increase the profitability of its own offerings, e.g., its own video programming. This exception to the ICE theory is a growing phenomenon.”).

⁴³² Some commenters in this record assert this as well. See, e.g., AARP Comments at 14; INCOMPAS Comments at 72; OTI New America at 109; Free Press Comments at 66; Internet Association Comments at 19, 23; Public Knowledge Comments at 105.

⁴³³ See *Title II Order*, 30 FCC Rcd at 5608, para. 20.

⁴³⁴ See Verizon Comments at 34; Charter Comments at 2; NCTA Comments at 51 (asserting that “it would be irrational for ISPs to undermine the very openness that has long buoyed their businesses for some short-term gain.”); CenturyLink Comments at 8–9 (“In this environment, broadband providers have every incentive to design, maintain and manage their networks in a way that meets end user expectations for openness.”); ACLP Comments at 7–8 (“ISPs derive the lion’s share of their revenues from residential and business subscriptions to voice, video, and/or data products. This means that any effort to degrade or limit a person’s enjoyment of their user experience—by, for example, blocking a popular website or unnecessarily throttling a popular service—would harm their bottom lines, both from subscriber loss and public pressure that would likely harm their stock price.”); TPI Comments at 2; Cox Comments at 22 (“a BIAS provider that fails to adhere to principles of openness, thereby upsetting consumer expectations, would risk driving customers to rival providers.”); AT&T Reply at 23 (“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.”); Daniel Lyons, *Net Neutrality and Nondiscrimination Norms in Telecommunications*, 54 Arizona L.R. 1029, 1036–7 (2012) (“[B]roadband providers generally have strong incentives *not* to block content or applications on their networks. At their core, these companies do not themselves provide most online products that their customers want. Rather, broadband providers connect customers to the services available in cyberspace—and the value of that connection to the customer is directly related to the number of sites the customer can reach. . . . Every website or application that is blocked reduces the value of broadband access to the consumer and, therefore, adversely affects the price the consumer will pay for the broadband provider’s service.”).

⁴³⁵ Comcast Comments at 54–55, 64; Frontier Comments at 6; Cox Comments at 20–21; Verizon Comments at 20; AT&T Comments at 101.

⁴³⁶ See *infra* Part. III.C.3.

heavy-handed approach to protecting Internet openness.

118. The *Open Internet* and *Title II Orders* claimed to base their actions on a theory that broadband adoption is driven by a “virtuous cycle,” whereby edge provider development “increase[s] end-user demand for [Internet access services], which [drive] network improvements, which in turn lead to further innovative network uses.”⁴³⁷ The *Title II Order* concluded that Commission action was necessary to protect this virtuous cycle because “gatekeeper” power on the part of ISPs might otherwise thwart it,⁴³⁸ as ISPs “are unlikely to fully account for the detrimental impact on edge providers’ ability and incentive to innovate and invest.”⁴³⁹ However, the economic analysis in the *Open Internet Order* and *Title II Order* was at best only loosely based on the existing economics literature, in some cases contradicted peer-reviewed economics literature, and included virtually no empirical evidence.

119. We find it essential to take a holistic view of the market(s) supplied by ISPs. ISPs, as well as edge providers, are important drivers of the virtuous cycle, and regulation must be evaluated accounting for its impacts on ISPs’ capacity to drive that cycle, as well as that of edge providers. The underlying economic model of the virtuous cycle is that of a two-sided market. In a two-sided market, intermediaries—ISPs in our case—act as platforms facilitating interactions between two different customer groups, or sides of the market—edge providers and end users. The *Open Internet Order* takes the position that edge provider innovation drives consumer adoption of Internet access and platform upgrades. The key characteristic of a two-sided market, however, is that participants on each side of the market value a platform service more as the number and/or quality of participants on the platform’s other side increases. (The benefits subscribers on one side of the market bring to the subscribers on the other, and *vice versa*, are called positive externalities.)⁴⁴⁰ Thus, rather than a single side driving the market, both sides generate network externalities, and the platform provider profits by inducing both sides of the market to use its platform. In maximizing profit, a platform provider sets prices and invests in network extension and innovation to maximize the gain subscribers (and potential subscribers) on both sides of the market obtain in interacting across the platform, subject to costs and competitive conditions. Any analysis of such a market must account for each side of the market and the platform provider.

120. Innovation by ISPs may take the form of reduced costs, network extension, increased reliability, responsiveness, throughput, ease of installation, and portability. These types of innovations are as likely to drive additional broadband adoption as are services of edge providers. In 2016, nearly 80 percent of Americans used fixed wireline Internet access (excluding traditional DSL) at home at speeds of at least 3 Mbps down and 0.768 Mbps up.⁴⁴¹ There is no evidence that the remaining nearly one quarter

⁴³⁷ *Open Internet Order*, 25 FCC Rcd at 17910-11, para. 14; *Title II Order*, 30 FCC Rcd at 5603, 5604, 5608-09, paras. 2, 7, 20-21.

⁴³⁸ *Open Internet Order*, 25 FCC Rcd at 14868, para. 24 (asserting that “broadband providers have the ability to act as gatekeepers”); *Title II Order*, 30 FCC Rcd at 5608-09, 5628, paras. 20-21, 78.

⁴³⁹ *Open Internet Order*, 25 FCC Rcd at 14867-68, paras. 23-25. While the primary reason for this seems to be concern about the exercise of market power, footnote 68 suggests a secondary reason: ISPs “will typically not take into account the effect that reduced edge provider investment and innovation has on the attractiveness of the Internet to end users that rely on other broadband providers—and will therefore ignore a significant fraction of the cost of foregone innovation.” However, neither the *Open Internet Order* nor our record provide a mechanism to explain how this would occur, and why the impact on the ISP would not be proportional to its own business, and so be fully accounted for in its decisions, and provides no evidence that even if possible, there was a measurable impact from such an effect.

⁴⁴⁰ See, e.g., Alexander White, *The Economics of Online Platforms*, *The New Palgrave Dictionary of Economics*, (2012); Marc Rysman, *The Economics of Two-Sided Markets*, 23 *J. of Economic Perspectives* 125 (2009); Alexander White and E. Glen Weyl, *Insulated Platform Competition* (Apr. 18, 2016), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1694317.

⁴⁴¹ See *infra* para. 126; see also *Internet/Broadband Fact Sheet*, Pew Research Center, (Jan. 12, 2017), available at <http://www.pewinternet.org/fact-sheet/internet-broadband/>.

of the population are all waiting for the development of applications that would make Internet access useful to them. Rather, the cost of broadband Internet access service is a central reason for non-adoption.⁴⁴² ISP innovation that lowers the relative cost of Internet access service is as likely as edge innovation, if not more so, to positively impact consumer adoption rates. Indeed, ISPs likely play a crucial role by offering, for example, low-margin or loss-leading offers designed to induce skeptical Internet users to discover the benefits of access.⁴⁴³ In response to a larger base of potential customers, the returns to innovation by edge providers would be expected to rise, thereby spurring additional innovative activity in that segment of the market.

121. Accordingly, arguments that ISPs have other incentives to take actions that might harm the virtuous cycle, and hence might require costly Title II regulation, need to be explained and evaluated empirically. In a two-sided market, three potential reasons for Title II regulation arise: the extent to which ISPs have market power in selling Internet access to end users; the extent to which ISPs have market power in selling to edge providers access to the ISP's subscribers (end users), which seems to primarily be what the Commission and others appear to be referring when using the term "gatekeeper"; and the extent to which the positive externalities present in a two-sided market might lead to market failure even in the absence (or because of that absence) of ISP market power. In considering each of these, we find that, where there are problems, they have been overestimated,⁴⁴⁴ and can be substantially eliminated or reduced by the more light-handed approach this order implements.⁴⁴⁵

122. Our approach recognizes our limits as regulators, and is appropriately focused on the long-lasting effects of regulatory decisions. Thus, we seek to balance the harms that arise in the absence of regulation against the harms of regulation, accounting for, in particular, the effects of our actions on

⁴⁴² John H. Horrigan and Maeve Duggan, "Home Broadband 2015," Pew Research Center (Dec. 21, 2015), available at <http://www.pewinternet.org/2015/12/21/home-broadband-2015/> ("Non-broadband adopters who view a lack of home service as a major disadvantage are also more likely to cite the monthly cost of broadband as the primary reason they do not subscribe. Price sensitivity, in other words, is greatest among those who are most likely to see the advantages of a home broadband subscription."); John H. Horrigan and Maeve Duggan, "Home Broadband 2015," Pew Research Center (Dec. 21, 2015), available at <http://www.pewinternet.org/2015/12/21/home-broadband-2015/>; see also O. Carare, *et al.* "The willingness to pay for broadband of non-adopters in the U.S.: Estimates from a multi-state survey", *Information Economics and Policy* 30 (2015) 19–35, at 21 (asserting that "approximately one-third of non-adapters surveyed indicate that price of the service is a relevant factor.").

⁴⁴³ See, e.g., Strategies and Recommendations for Promoting Digital Inclusion, Consumer and Governmental Affairs Bureau, Federal Communications Commission (Jan. 11, 2017), https://apps.fcc.gov/edocs_public/attachmatch/DOC-342993A1.pdf, at 19-20 (explaining how Comcast has innovated on an original regulatory requirement, and how other ISPs have followed that example).

⁴⁴⁴ See, e.g., INCOMPAS Comments at 25 ("[I]ncumbent broadband providers whose facilities are used for the consumption of long-form video have market power in the classic sense. That is to say, they are able to maintain supra-competitive pricing because of large market shares, limited competitive choices, high switching costs and high barriers to entry. . . . That is true in both the local markets for the subscription to broadband internet access service and the national market upstream for the distribution of content. In the first market, the customers are residential consumers, in the second the customers are those companies that wish to deliver traffic to the broadband providers for their local delivery to subscribers.").

⁴⁴⁵ See, e.g., CenturyLink Comments at 8 ("[N]ot only is it clear that there are substantial costs maintaining the Title II rules, there is no evidence that there are offsetting benefits."); AT&T Economic Declaration at 10 ("[T]here is a broad consensus that disclosure requirements and prohibitions on blocking and throttling should remain in place. The question here is whether Title II regulation should be imposed in addition to this baseline regulation and applied to an otherwise effectively competitive marketplace. We conclude that such incremental regulation serves only to constrain the competitive options open to firms while offering little or no incremental benefit.").

investment decisions that could increase competition three to five or more years from now.⁴⁴⁶ We note that our reclassification of broadband Internet access service as an information service leaves the usual recourse of antitrust action available to all parties. That is, heavy-handed Title II regulation is unnecessary to enforce antitrust law.

123. *Fixed ISPs Often Face Material Competitive Constraints.* The premise of Title II and other public utility regulation is that ISPs can exercise market power sufficient to substantially distort economic efficiency and harm end users.⁴⁴⁷ However, analysis of broadband deployment data, coupled with an understanding of ISPs' underlying cost structure, indicates fixed broadband Internet access providers frequently face competitive pressures.⁴⁴⁸ Therefore, the primary market failure rationale for classifying broadband Internet access service under Title II is absent. Furthermore, the presence of competitive pressures in itself protects the openness of the Internet. The theory that competition is the best way to protect consumers is the "heart of our national economic policy" and the premise of the 1996 Act.⁴⁴⁹ We therefore find that the competition that exists in the broadband market, combined with the protections of our antitrust and consumer protection laws against anticompetitive behaviors, will constrain the actions of an ISP that attempts to undermine the openness of the Internet in ways that harm consumers.

124. *ISP Competition in Supplying Internet Access to Households.* Starting with fixed Internet access, including fixed satellite and terrestrial fixed wireless service, competition, with whatever limitations may be inherent in these different technologies, appears to be widespread, at lower speeds for most households:⁴⁵⁰

⁴⁴⁶ This is different from forbidding certain behavior or a merger on antitrust grounds due to the likelihood of imminent, non-transitory price increases. As a result, our discussion of competition need not have any implications for conventional antitrust analysis.

⁴⁴⁷ W. Kip Viscusi, Joseph E. Harrington, Jr., and John M. Vernon, *Economics of Regulation and Antitrust*, 4th Ed., 401-26 (2005). Lyons, *Net Neutrality and Nondiscrimination Norms*, 54 Arizona L.R. at 1036 ("[W]hile critics acknowledge that broadband providers may have economic incentives to block or degrade certain content or application providers, competitive pressure and antitrust law each help to police such misbehavior. *If a company has market power, antitrust doctrines—such as the law governing unilateral refusals to deal—protect consumers just as they do in every other area of the economy.* Therefore, although some government oversight is appropriate, critics question whether stringent Commission regulation benefits consumers above and beyond the protections they receive from general economic regulations.") (emphasis added); AT&T Reply at 10–11 ("Although vertical integration is generally procompetitive, it is of course possible to imagine 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. If there are firms that actually possess such market power in specific geographic areas . . . the proper regulatory response would be to keep *those dominant firms* from anticompetitively excluding *OVD competition*, as antitrust law already does. . . . 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).").

⁴⁴⁸ See, e.g., D.W. Carlton & J.M. Perloff, *Modern Industrial Organization*, Pearson/Addison Wesley, 4th Edition, 2005, at 682-735; D.E. Waldman & E.J. Jensen, *Industrial Organization: Theory and Practice*, Pearson, 4th Edition at 628-58 (2013).

⁴⁴⁹ Our discussion of competitive effects, unless otherwise specified, does not rely on or define any antitrust market.

⁴⁴⁹ Ohlhausen, *Antitrust Over Net Neutrality*, 15 Colo. Tech. L. J. 119, 122 (2016) (quoting *Standard Oil Co. v. FTC*, 340 U.S. 231, 249 (1951)); 1996 Act.

⁴⁵⁰ We make no finding as to whether lower speed fixed Internet access services are in the same market as higher speed fixed Internet access services.

Percent of U.S. population in developed census blocks in which residential fixed broadband ISPs reported deployment (as of December 31, 2016)⁴⁵¹

Speed of at least:	Number of providers			
	3+	2	1	0
3 Mbps down and 0.768 Mbps up	97.0%	2.7%	0.2%	0.1%
10 Mbps down and 1 Mbps up	93.7%	5.7%	0.5%	0.1%
25 Mbps down and 3 Mbps up	43.7%	32.8%	19.2%	4.3%

125. However, because there are questions as to the extent fixed satellite and fixed terrestrial wireless Internet access service are broadly effective competitors for wireline Internet access service, we do not rely on this data, except to note that these services, where available, must place some competitive constraints on wireline providers.⁴⁵² Focusing on competition among wireline service providers, and excluding DSL with speeds less than 3 Mbps down and 0.768 Mbps up, shows less, but still widespread competition:

Percent of U.S. population in developed census blocks in which residential broadband wireline ISPs reported deployment (as of December 31, 2016)⁴⁵³

Speed of at least:	Number of providers			
	3+	2	1	0
3 Mbps down and 0.768 Mbps up	12.2%	67.5%	16.1%	4.1%
10 Mbps down and 1 Mbps up	9.1%	58.7%	26.3%	5.9%
25 Mbps down and 3 Mbps up	5.9%	45.2%	40.0%	8.9%

126. This table understates competition in several respects. First, even two competing wireline ISPs place considerable, if not always fully effective, competitive constraints on each other. ISPs' substantial sunk costs imply that competition between even two ISPs is likely to be relatively strong. Thus, to the extent market power exists, it is unlikely to significantly distort what would otherwise be efficient choices. A wireline ISP, anywhere it is active, necessarily has made substantial

⁴⁵¹ Fixed Broadband Deployment Data from FCC Form 477, as of December 31, 2016 (V2), <https://www.fcc.gov/general/broadband-deployment-data-fcc-form-477>; U.S. Census Bureau, 2010 Census Data, Summary File 1, <https://www.census.gov/2010census/data/>. A developed census block is a census block containing at least one household. An ISP that reports offering service in a census block may not offer service, or service at that speed, to all locations in the block.

⁴⁵² Fixed wireless and satellite subscriptions decisions suggest that consumers generally prefer fixed wireline services to these, even at lower speeds. For example, at bandwidths of 3 Mbps downstream and 0.768 Mbps upstream, satellite providers report deployment in 99.1% of developed census blocks, but only account for 1.7% of subscriptions, while terrestrial fixed wireless providers report deployment in 38.5% of developed census blocks, but only account for 0.9% of all subscriptions. FCC Form 477 Subscription Data, June 2016. In the 2016 Broadband Progress Report, the FCC defined advanced telecommunications services as 25 Mbps download and 3 Mbps upload for fixed services. <https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2016-broadband-progress-report>. Satellite providers only covered 50.0% of census blocks at these speeds, and fixed wireless providers, 18.5%.

⁴⁵³ See *supra* note 451. While not reported, the percent of households in developed census blocks closely tracks the entries for the percent of population in developed census tracts. For example, approximately 79.7 percent of US households are in a census block where at least two wireline suppliers offer speeds of at least 3 Mbps down and 0.768 Mbps up.

sunk investments.⁴⁵⁴ Yet, the cost of adding another customer, or of carrying more traffic from the same customers, is relatively low.⁴⁵⁵ Accordingly, a wireline ISP has strong incentives, even when facing a single competitor, to capture customers or induce greater use of its network, so long as its current prices materially exceed the marginal cost of such changes.⁴⁵⁶ In addition, empirical research finds that the largest benefit from competition generally comes from the presence of a second provider, with added benefits of additional providers falling thereafter,⁴⁵⁷ especially in the presence of large sunk costs.⁴⁵⁸ Indeed, a wireline provider may be willing to cut prices to as low as the incremental cost of supplying a new customer.⁴⁵⁹ Thus, in this industry, even two active suppliers in a location can be consistent with a

⁴⁵⁴ On sunk costs being important in (especially wireline) telecommunications, see Jonathan E. Nuechterlein and Philip J. Weiser, *Digital Crossroads: Telecommunications Law and Policy in the Internet Age*, at 8-10 (2nd ed. 2013) (Nuechterlein and Weiser); Jerry Hausman and J. Gregory Sidak, *Telecommunications Regulation: Current Approaches with the End in Sight*, in *Economic Regulation and Its Reform: What Have We Learned?* at 345, 353-54 (Nancy L. Rose, ed., 2005); Organization for Economic Co-operation and Development, *The Development of Fixed Broadband Networks*, at 11 (Jan. 8, 2015), [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/CISP\(2013\)8/FINAL&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/CISP(2013)8/FINAL&docLanguage=En) (OECD Fixed Broadband Networks) (noting the listed fixed costs are all sunk). Wireless ISPs similarly sink costs into backhaul, switches and marketing (Nuechterlein and Weiser, at 8-9). While modern high-throughput satellites have some ability to be re-purposed, a significant share of the costs of developing, building, and launching a modern satellite is sunk. See *Second Annual Report and Analysis of Competitive Market Conditions with Respect to Domestic and International Satellite Communications Services*, Second Report, 23 FCC Rcd 15170, 15183, 15185, 15189 (2008) <https://www.fcc.gov/reports-research/reports/satellite-competition-reports/satellite-competition-report-2nd-annual>.

⁴⁵⁵ Nuechterlein and Weiser at 9 (“[O]nce the network is up and running, the *marginal* cost of providing service to each additional customer is often tiny by comparison, particularly for wireline networks. Given these enormous fixed costs and negligible marginal costs, it is often cheaper per customer for a carrier to provide service to one million customers than to one thousand customers.”).

⁴⁵⁶ AT&T Economic Declaration at 28-29.

⁴⁵⁷ AT&T Economic Declaration at 28-29. *Adjusting Regulation to Competition: Toward a New Model for U.S. Telecommunications Policy*, 24 Yale J. on Reg. 24 (2007) (Shelanski); Mark Israel, Daniel Rubinfeld, and Glenn Woroch, *Analysis of the Regressions and Other Data Relied Upon in the Business Data Services FNPRM And a Proposed Competitive Market Test*, June 28, 2016 at 39-40, [https://ecfsapi.fcc.gov/file/106281210703808/Second%20IRW%20White%20Paper%20\(Public\).pdf](https://ecfsapi.fcc.gov/file/106281210703808/Second%20IRW%20White%20Paper%20(Public).pdf). Empirical evidence also suggests once a market reaches two or three firms, an additional entrant has little effect on per customer profits. See Timothy F. Bresnahan & Peter C. Reiss, *Entry and Competition in Concentrated Markets*, 99 J. of Pol. Economy 977 (1991). Some empirical research on railroads, another industry with high sunk costs, finds that the presence of a second railroad in a market is sufficient to produce a competitive outcome. See Paul A. Pautler, *Evidence on Mergers and Acquisitions*, 48 Antitrust Bulletin 200-01 (2003). Additionally, a recent study of the U.S. residential broadband market finds that entry of a fourth competitor in a zip code has almost no effect on price. See generally Mo Xiao & Peter F. Orazem, *Does the Fourth Entrant Make Any Difference? Entry and Competition in the Early U.S. Broadband Market*, 29 Int’l J. of Indus. Org. 547 (2011).

⁴⁵⁸ Other industries with large sunk costs have shown that “price declines with the addition of the first competitor, but drops by very little thereafter.” Allan Collard-Wexler, *Demand Fluctuations in the Ready-Mix Concrete Industry*, 81 *Econometrica* 1003, 1008 at Figure 2 (2013). Nothing in this order should be construed as finding that these statements appropriately characterize the addition of the first fixed wireline competitor in a particular context, only that in general such an addition likely will have a material impact on moving prices toward competitive levels.

⁴⁵⁹ The Commission previously stated, “the presence of facilities-based competition with significant sunk investment makes exclusionary pricing behavior costly and highly unlikely to succeed.” *Pricing Flexibility Order*, 14 FCC Rcd at 14264, para. 80.

noticeable degree of competition, and in any case, can be expected to produce more efficient outcomes than any regulated alternative.⁴⁶⁰

127. Second, competitive pressures often have spillover effects across a given corporation, meaning an ISP facing competition broadly, if not universally, will tend to treat customers that do not have a competitive choice as if they do. This is because acting badly in uncompetitive areas may be operationally expensive (i.e., requiring different equipment, different policies, different worker training, and different call centers to address differing circumstances) and reputationally expensive (e.g., even if behavior is confined to an uncompetitive market, customers in competitive markets may churn after learning about such behavior). Accordingly (and unsurprisingly), most ISPs actively try to minimize the discrepancies in their terms of service, network management practices, billing systems, and other policies—even if they offer different service tiers or pricing in different areas. Approximately 79 percent of US households are found in census blocks that at least two wireline ISPs report serving, and approximately another 7 percent of households are in census blocks where the unique wireline ISP providing service in the census block faces competition from a rival in 90 percent of the blocks it services.⁴⁶¹

128. The Commission's prior findings on churn in the broadband marketplace do not dissuade us of this result. Although the Commission has previously found voluntary churn rates for broadband service to be quite low,⁴⁶² a view which some commenters echo,⁴⁶³ substantial, quantified evidence in the record dissuade us from repeating that finding here.⁴⁶⁴ Regardless, even if high churn rates make market

⁴⁶⁰ See, e.g., AT&T Comments at 29–30 (“[O]nly a very small number of competitors is needed to protect consumer interests in industry contexts like this one, where fixed and sunk costs are high and the incremental cost of serving incremental users is comparatively low. In those contexts, rivals have strong incentives to compete fiercely to gain and retain customers even as prices fall because, whenever they lose a customer, they save minimal costs but lose significant revenues.”); AT&T Economic Declaration at 28–29 (“Economics teaches that in markets such as broadband Internet access, the presence of two competitors is likely to result in effective competition. In particular, the presence of high sunk costs in this industry means that competition is likely to be intense, even with only two providers.”). We do not claim that a second wireline provider results in textbook perfect competition, but rather, given ISP recovery of sunk investments becomes more difficult as competition increases, and the critical nature of allowing such recovery, market outcomes may well ensure approximately competitive rates of return.

⁴⁶¹ Such ISPs included the top ten ISPs when ranked by covered census blocks, and also when ranked by households in covered census blocks, except the ninth, Windstream. FCC Fixed Broadband Deployment and Census 2010 Data.

⁴⁶² *Title II Order*, 30 FCC Rcd at 5631–32, para. 81; *Charter-TWC Merger Order*, 31 FCC Rcd at 6353–54, para. 58.

⁴⁶³ Internet Association Comments at 20 (“ISPs’ gatekeeping power would be mitigated if consumers could easily switch providers, but the Commission has found that consumers face high switching costs as a result of activation fees, high upfront device installation fees, long-term contracts and early termination fees, and costs associated with equipment and services not working with a new broadband access service. In addition, bundled pricing and family discount plans often discourage consumers from switching.”); INCOMPAS Comments at 33–34 (“Both financial and non-financial costs deter consumers from switching.”); Engine Reply at 4; INCOMPAS Reply at 26–28 (“Lack of competition is compounded by high switching costs. . . . [S]witching providers first requires a service call to disconnect from the subscriber’s current provider. That is often met with refusal to disconnect or *use of aggressive win-back tactics*. If that hurdle is surpassed, the next step requires the subscriber to return the current broadband provider’s equipment to a location that is often far away from that subscriber’s location. Then the subscriber must schedule a service visit to install the new service, which often requires someone to be in the location for a significant period of time. And once these steps conclude, the subscriber still faces uncertainty over the quality of service the new broadband provider will offer. Moreover, the fact that consumers tend to prefer buying bundles that contain both broadband access and video programming also increases the switching costs.”).

⁴⁶⁴ Verizon Reply Economic Declaration at 15 (“claims regarding switching costs are refuted by the significant rate of switching by subscribers. For instance, a 2014 survey by Global Strategy Group found that consumers switch broadband providers frequently, with 17.6 percent switching in the prior 12 months, 33.1 percent switching in the prior 2 years, and 49.4 percent switching in the prior 4 years. The significant rate of switching indicates that wireline provider contracts, and any inconveniences of switching (such as the need to return broadband equipment),

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power unlikely, low churn rates do not *per se* indicate market power. For example, they may reflect competitive actions taken by ISPs to attract customers to sign up for contracts, and to retain existing customers, such as discount and bonus offers. Moreover, actions such as these, and others, are indicative of competition. For example, ISPs engage in a significant degree of advertising, aiming to draw new subscribers and convince subscribers to other fixed ISPs to switch providers.⁴⁶⁵ Similarly, ISPs employ “save desks” often taking aggressive actions to convince subscribers seeking service cancellation to continue to subscribe, often at a discounted price.⁴⁶⁶ Thus, the record indicates material competition for customers regardless of churn levels.

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do not inhibit subscriber switching.”); CenturyLink Folster Declaration at 3–4 (“Overall, according to Frost & Sullivan data, telco providers lost 1 point of market share during 2016 and have lost 3 points of share over the last three years, primarily at the expense of cable providers. This, in and of itself, is evidence that switching costs are low. If the switching costs for changing ISPs were high, we would not expect to see such a decline in market share over such a short period of time”); TPI Comments at 7 (“[T]he implication that switching costs render competition meaningless is inconsistent with the substantial sums on marketing and incentives to induce subscribers to remain and competitors’ subscribers to switch service. . . . Even if only a small percentage of subscribers are willing to incur switching costs, providers will be constrained from the types of anticompetitive activities about which the Commission is concerned.”); Free State Comments at 28–30 (“the *Title II Order* relied on a false narrative that consumer “switching costs” are too high, creating monopoly power even when multiple broadband ISPs offer access in a given area.”).

⁴⁶⁵ See, e.g., Mike Dano, *New Street: AT&T’s fiber build-out cut into Charter and Comcast’s growth—but that won’t last*, FierceCable.com (Nov. 2, 2017), <http://www.fiercecable.com/cable/new-street-at-t-s-fiber-buildout-cut-into-charter-and-comcast-s-growth-but-won-t-last> (reporting analyst view that AT&T has claimed market share from cable through fiber deployment and steep discounts, and questioning whether such discounts can be sustained, indicating how aggressive AT&T has been as a competitor); Chris Mills, *\$500 off the iPhone X is still \$500 off, even from Comcast*, BGR.com (Oct. 25, 2017) <http://bgr.com/2017/10/25/iphone-x-deals-xfinity-mobile-vs-verizon-500-off/> (discussing Comcast’s offer of \$500 to new customers signing a fixed Internet access contract with mobile service on an iPhone); INCOMPAS Reply at 12 (listing “aggressive win-back techniques” as one method ISPs employ to prevent churn); Letter from Jonathan E. Nuechterlein, Counsel to AT&T, to Marlene Dortch, Secretary, FCC, WC Docket No. 17-108, Attach. at 19 (filed Oct. 31, 2017) (providers commonly route disconnection requests to save desks that make special efforts to retain the customer). See also Free State Comments at 29 (“[T]he [Title II] Order [did not] take stock of the ferocity with which the ISPs fight for customers through various forms of marketing designed to induce switching. Data regarding the substitutability of mobile broadband services for fixed broadband services also demonstrates that the order significantly overstated the barriers to consumer choice imposed by switching costs.”); AT&T Economic Declaration at 25–26 (“There is also intense rivalry between telcos, cable companies and other entrants with respect to fixed Internet services. Indicators of this rivalry include, among others . . . Advertising expenditures: Fixed broadband Internet access providers spend heavily on advertising. Through this advertising, providers fight to differentiate themselves from their competitors by touting the speeds they are able to offer as well as their customer satisfaction ratings. As a matter of economics, it would not be rational to spend this much on advertisements focused on differentiating offerings from competitors if there were not strong competition among providers for consumers.”); Comcast Comments, Appx. C at 15–16 (“Surveyed results filed with the FCC show that one-third of all subscribers have changed their provider in the last two years and almost half in the last four years. . . . The heavy national and regional advertising that BIAS providers (both wireless and wireline) do would make little sense otherwise.”); Verizon Economic Declaration at 28–29 (“The risk of losing customers presents a substantial economic threat to providers’ consumer wireline business because the net lifetime value of wireline subscribers is substantial. And, bundling with video, wireline voice, and wireless voice services increases the potential cost from the loss of subscribers. Because of the significant expected life-time value of wireline subscribers, retaining customers (*i.e.*, reducing churn) is an important part of the competitive strategy for Verizon and other broadband providers.”).

⁴⁶⁶ See Consumer Reports, “Haggling for a lower telecom bill really works, says one CR editor” (May 17, 2012) <https://www.consumerreports.org/cro/news/2012/05/haggling-for-a-lower-telecom-bill-really-works-says-one-cr-editor/index.htm>; N. Safo, “Want to save money? Call your cable company” *Marketplace* (Oct. 9, 2014) <https://www.marketplace.org/2014/10/09/business/want-save-money-call-your-cable-company>; INCOMPAS Reply at 26–28 (Attempts to switch providers are “often met with . . . use of aggressive win-back tactics”); AT&T

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129. *There is even greater competition in mobile wireless.* Mobile wireless ISPs face competition in most markets, with widespread and ever extending head-to-head competition between four major carriers. As of January 2017, at least four wireless broadband service providers covered approximately 92 percent of the U.S. population with 3G technology or better.⁴⁶⁷ Even in rural areas at least four service providers covered approximately 55 percent of the population.⁴⁶⁸

130. Both the *Title II Order* and its supporters in the current proceeding fail to properly account for the pressure mobile Internet access might exert on fixed, including fixed wireline, Internet access supply.⁴⁶⁹ While we recognize that fixed and mobile Internet access have different characteristics and capabilities, for example, typically trading off speed and data caps limits against mobility, increasing numbers of Internet access subscribers are relying on mobile services only. In 2015, one in five households using the Internet at home (up from one in ten in 2013), and close to 15 percent of households with incomes in excess of \$100,000 (up from six percent in 2013), have only mobile Internet access service.⁴⁷⁰ With the advent of 5G technologies promising sharply increased mobile speeds in the near

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Economic Declaration at 26–27 (“[T]he fact that providers actively compete to steal customers from one another demonstrates that they have available capacity with which to serve those customers. The ability to switch fixed access providers is demonstrated by the fact that churn is an important strategic focus in the broadband Internet access industry. The focus on reducing churn is evident in providers’ focus on “save desk” efforts. Customers thinking about leaving their Internet service provider must call to disconnect service, and they are then referred to save desks that will offer substantial discounts or other inducements to persuade the customer to stay. This is competition in action; the ability to switch leads firms to offer substantial inducements to stay, thus benefiting even those customers who ultimately choose not to switch. . . . Finally, as with wireless, search costs are very low in this industry, as there is no shortage of comparative advertising, including direct mailing and circulars.”). On the substantial discounts made in save offers, *see* CenturyLink Folster Declaration at 3–4 (“*In the past customers were required to purchase their modem from their ISP. Today, customers may purchase their modem from either their ISP or a third party provided the MODEM supports the technology on which the customer is provisioned. . . . ISP promotional service offerings often include features that reduce switching costs, such as removal of activation fees, elimination of installation fees and elimination of early termination fees.*”); Comcast Comments Appendix C at 15–16 (“Although there is certainly some customer inertia, the basic wiring and even the equipment at the customer’s premise can usually be repurposed to any BIAS provider. If both Spectrum and Verizon FiOS offer service to a particular household, then switching between services is a simple matter.”).

⁴⁶⁷ These coverage estimates represent deployment of mobile networks and do not indicate the extent to which providers offer service to residents in the covered areas. *20th Mobile Wireless Competition Report Web Appendix III: Elements of Inter-Firm Rivalry*, <https://www.fcc.gov/20th-cmrs-report-web-appendices>.

⁴⁶⁸ *20th Mobile Wireless Competition Report Web Appendix III: Elements of Inter-Firm Rivalry*, <https://www.fcc.gov/20th-cmrs-report-web-appendices>; *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, Including Commercial Mobile Services, Sixteenth Report*, 30 FCC Rcd 14515, 14544, Chart III.A.5 (WTB 2015) (*Eighteenth Report*).

⁴⁶⁹ *See* Public Knowledge Comments at 79 (stating that “wireless and wireline broadband are distinct product markets” and that “[i]n this case the data show that consumers who can afford both fixed and mobile broadband tend to buy both”); INCOMPAS Reply at 27–28 (stating that Dr. Evans finds that “[m]ost households that have a [fixed broadband provider subscription] . . . have one or more household members that have a [] mobile subscription with a broadband data plan”).

⁴⁷⁰ G. McHenry, *Evolving Technologies Change the Nature of Internet Use* (Apr. 19, 2016), <https://www.ntia.doc.gov/blog/2016/evolving-technologies-change-nature-internet-use>, Tables 1 and 2. Free State Comments at 24–25 (“An important aspect of the broadband market’s dynamism, erroneously overlooked by the *Title II Order*, is cross-platform or intermodal competition between multiple broadband technologies. Broadband ISPs offering service across cable, fiber, mobile, and satellite platforms compete with each other for consumers or even for proportions of multi-screening consumer data usage. Around the time of the order’s adoption, data showed that 10% of Americans had a mobile broadband connection but did not have a fixed broadband connection. Since then, evidence from the National Telecommunications and Information Administration finds that consumers across

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future, the pressure mobile exerts in the broadband market place is likely to grow even more significant.⁴⁷¹

131. *ISP Competition in Supplying Edge Providers Access to End Users.* On the other side of the market, to the extent ISPs have market power in supplying edge providers, ISP prices to edge providers could distort economic efficiency (a potential harm that is distinct from anticompetitive behavior or because of a failure to internalize a relevant externality).⁴⁷² Loosely speaking, such power over an edge provider can arise under one of two conditions: the ISP has conventional market power over the edge provider because it controls a substantial share of (perhaps a specific subset of) end-user subscribers that are of interest to the edge provider, or that edge provider's customers only subscribe to one ISP (a practice known as single homing).

132. Narrowly focusing on fixed ISPs, Comcast, the largest wireline ISP, has approximately one quarter of all residential subscribers in the US,⁴⁷³ while at speeds of at least 25 Mbps down and 3 Mbps up, the Herfindahl-Hirschman Index measure of concentration for the supply of access to

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all income levels are substituting mobile broadband for fixed broadband. For example, 29% of low-income consumers, 18% of middle-income consumers, and 15% of high-income consumers are mobile-only broadband users.”); AT&T Comments at 30–31 (“According to a Pew Research study, “a growing share of Americans now use smartphones as their primary means of online access at home. Today just over one-in-ten American adults are ‘smartphone-only’ internet users—meaning they own a smartphone, but do not have traditional home broadband service.” That trend is likely to continue with the roll-out of affordable mobile plans with unlimited data (see above) and the ubiquitous availability of public Wi-Fi hotspots.”); AT&T Economic Declaration at 29–34 (“Convergence between wireless and wireline services is further increasing the number of options available to customers (who might previously have looked only at wireless or only at wireline options), and thus further increasing the intensity of competition. . . . Moreover, when comparing wireless and wireline speeds, it is important to note that while a wireline connection may be shared between multiple users, wireless connections are typically measured on a per device basis, so two smart phone users in a household may each be taking advantage of 25 Mbps connections on their phones, while a landline connection in the home may be 25 Mbps and be shared between the two.”). Competition constrains a firm’s prices if the firm is prevented from raising price to levels that absent switching to competitors, would increase the firm’s profits. The extent of the switching need not be large. For example, with constant unit costs, a 5% price increase would be prevented if that would lead to slightly less than 5% of the firm’s customers to either stop consuming altogether or to switch to a rival. Suppliers of Internet access service are likely to be more sensitive to customer loss than the case with constant marginal cost, since in general the marginal costs of Internet access service fall as subscriber numbers increase, meaning, in addition to the revenues lost due to leaving customers, profits are also eroded due to a rise in the average cost of supplying those who remain. *See infra*, n.455.

⁴⁷¹ Ericsson Comments at 3; Verizon Economic Declaration at 28 (“[T]he promises of upcoming 5G technology are likely to increase the competitive pressure from wireless services on wireline broadband over time.”); AT&T Comments at 31 (“The distinction between fixed and mobile will evaporate further with the deployment of ultra-high-capacity 5G technologies, which will feature a proliferation of very small cell sites linked by dense fiber backhaul networks.”); AT&T Economic Declaration at 34 (“The evidence presented above makes clear that wireless-wireline convergence is occurring today. And that process will only accelerate as 5G networks are deployed.”).

⁴⁷² Shane Greenstein et al., *Net neutrality: A fast lane to understanding the trade-offs*, 30 J. of Econ. Perspectives 127, 135, 137-139 (2016), <http://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.30.2.127>.

⁴⁷³ Comcast reported 23.4 million “High-speed Internet residential customers” as of June 30, 2017, <http://www.cmcsa.com/secfiling.cfm?filingID=1166691-17-22>. Comcast’s market share is approximately 26% based on the 2015 Census Broadband data (23.4/90.7). This estimate is not sensitive to definitions of broadband. As of December 2016, there were 102 million fixed connections with download speeds of at least 3 Mbps, lowering Comcast’s share to approximately 23%, and 106 million with fixed connections of at least 200 Kbps in either direction, lowering Comcast’s share to approximately 22% (FCC Form 477 Subscription Data, December 2016).

residential fixed broadband Internet access service subscribers meets the Department of Justice (DOJ) designation of “moderately concentrated”:⁴⁷⁴

**HHI of served residential fixed broadband Internet access service subscribers
(as of December 31, 2016)⁴⁷⁵**

Speed	HHI
3 Mbps down and 0.768 Mbps up	1,473
10 Mbps down and 1 Mbps up	1,743
25 Mbps down and 3 Mbps up	2,208

133. Large shares of end-user subscribers, and/or market concentration, however, do not seem a likely source or indicator of conventional market power capable of significantly distorting efficient choices, with the possible exception of edge providers whose services require characteristics currently only available on high-speed fixed networks (such as video, which requires both high speeds and substantial monthly data allowances, and gaming and certain other applications, which require high speeds and low latency). Given Comcast’s market share, even a fledgling edge provider that can only be viable in the long term if it offers service to three quarters of broadband subscribers, is not dependent on gaining access to any single provider. And any market power on the part of a large wireline ISP is further diminished if edge providers can reach end users at locations other than their homes, such as at work, or through a mobile ISP.⁴⁷⁶ In addition, ISPs have good incentives to encourage new entrants that bring value to end users, both because such new entrants directly increase the value of the platform’s service, and because they place competitive pressure on other edge providers, forcing lower prices, again increasing the value of the platform’s service. Moreover, those smaller edge providers may benefit from tiered pricing, such as paid prioritization, as a means of gaining entry.⁴⁷⁷ In fact, some edge providers

⁴⁷⁴ The DOJ considers a market with an HHI value of between 1,500 and 2,500 to be moderately concentrated. See <https://www.justice.gov/atr/herfindahl-hirschman-index>.

⁴⁷⁵ FCC Form 477 Subscription Data (December 2016).

⁴⁷⁶ See Oracle Comments at 2-3 (“[T]he *Title II Order* inappropriately ascribed significant gatekeeper power to the “high” cost of switching home broadband providers. But, because more than two-thirds of global computing power is mobile, consumers’ devices switch among home, work, and retail networks throughout the day, to say nothing of internet access through work, school, and library computers and networks.”); AT&T Comments at 30 (“The fact that a typical consumer uses multiple networks sharply disciplines the ability of any given network to engage in conduct that threatens consumer welfare. . . that market dynamic will cause consumers to notice, complain, and switch if any ISP allows its best-effort broadband platform to diminish in quality or engages in anticompetitive treatment of edge providers.”); Verizon Economic Declaration at 36–37 (“[C]onsumers generally do multi-home by accessing online content and services on multiple platforms, such as one or more wireless broadband services, a wireline broadband service at home, a wireline broadband service at work, and Wi-Fi networks at numerous locations (*e.g.*, Starbucks, libraries, airports). Subscriber multi-homing also is at odds with the claim that, once a subscriber chooses a broadband Internet access provider, that provider is a “gatekeeper” over access to that subscriber.”). *But see* AARP Reply at 35–37 (“While it is certain that many consumers utilize different sources of broadband Internet access, it is not reasonable to assume that consumers can easily switch between these options, or would want to.”).

⁴⁷⁷ If the entrant offers a more valuable service than an incumbent, then this would be a profitable strategy, and while it is common to claim new entrants would not have the deep pockets necessary to implement such an entry strategy, new economy startups have demonstrated that capital markets are willing to provide funds for potentially profitable ideas, despite high failure rates, presumably because of the large potential gains when an entrant is successful. Examples of successful new entrants that started behind dominant incumbents, include Google (against established search engines such as Yahoo, and the map provider, MapQuest), Amazon (against traditional bricks and mortar storefronts), and Facebook (against MySpace).

might consider reaching end users on mobile devices to be roughly as valuable as, or more valuable than, reaching end users on wireline networks.

134. In addition, larger edge providers, such as Amazon, Facebook, Google and Microsoft, likely have countervailing market power that would reduce the prospect of inefficient outcomes due to ISP market power.⁴⁷⁸ For example, the market capitalization of the smallest of these five companies, Amazon, is more than twice that of the largest ISP, Comcast, and the market capitalization of Google alone is greater than every cable company in America combined.⁴⁷⁹ Action by these larger edge providers preventing or reducing the use of ISP market power could spill over to smaller edge providers, and in any case, are unlikely to anticompetitively harm them given existing antitrust protections (since arrangements between an ISP and a large established edge provider must be consistent with antitrust law). Consequently, any market power even the largest ISPs have over access to end users is limited in the extent it can distort edge provider decisions (or those of their end users).

135. Despite the preceding analysis, a second claim is made that relies solely on the second factor, single homing: “regardless of the competition in the local market for broadband Internet access, once a consumer chooses a broadband provider, that provider has a monopoly on access to the subscriber Once the broadband provider is the sole provider of access to an end user, this can influence that network’s interactions with edge providers, end users, and others.”⁴⁸⁰ Commenters have echoed this “terminating access monopoly” concern.⁴⁸¹ The *Title II Order* contended that these forces applied to all ISPs, whether large or small, fixed or mobile, fiber or satellite, and “therefore [it] need not consider whether market concentration gives broadband providers the ability to raise prices.”⁴⁸²

136. As a blanket statement, this position is not credible. It is unlikely that any ISP, except the very largest, could exercise market power in negotiations with Google or Netflix, but almost certainly no

⁴⁷⁸ C. Smith “Netflix’s ‘meh’ on net neutrality is exactly why we need strong rules, not empty promises” Jun. 1st, 2017, <http://bgr.com/2017/06/01/netflixs-net-neutrality-comments/> (“It’s not our primary battle at this point,” Hastings said on Wednesday about net neutrality during an interview at Recode’s Code Conference. ‘We think net neutrality is incredibly important,’ Netflix said, but ‘not narrowly important to us because we’re big enough to get the deals we want.’”).

⁴⁷⁹ On October 4, 2017, as estimated by share prices reported by www.marketwatch.com, Apple had a market capitalization of \$797.92 billion, Google of \$667.83 billion, Microsoft of \$571.97 billion, Facebook of \$493.28 billion, and Amazon of \$459.77 billion. Comcast’s valuation was substantially less than \$200 billion.

⁴⁸⁰ *Title II Order*, 30 FCC Rcd at 5629-30, para. 80. We discuss in paragraphs 117-119 claims that an ISP could act “in ways that may harm the open Internet, such as preferring their own or affiliated content, demanding fees from edge providers, or placing technical barriers to reaching end users. Without multiple, substitutable paths to the consumer, and the ability to select the most cost-effective route, edge providers will be subject to the broadband provider’s gatekeeper position.”

⁴⁸¹ See Ad Hoc Comments at 10-12; Public Knowledge Comments at 74-77; Fiber Broadband Association Comments at 4; Vimeo Comments at 23; Internet Association Comments at 21; INCOMPAS Comments at 34-35; INCOMPAS Comments at 38-41); Public Knowledge Comments at 74-77. This argument is often conflated with arguments about retail competition more generally, but it is a distinct concept that has been endorsed by the FCC and the courts in various contexts.

The focus on edge providers’ bargaining position vis-à-vis ISPs is warranted in light of the fact that any gatekeeper power applies to edge providers, not end users. See USTelecom Comments at 19-22 (“The theory of the gatekeeper or terminating access monopoly is *not* that a provider has market power with respect to the services it offers to its retail customers, but rather that it has market power with respect to its interactions with third parties. With respect to customers or end users, therefore, the gatekeeper theory is inapt, and the proper question that the Commission should ask is whether broadband providers have market power in properly defined consumer markets.”) (internal quotations omitted).

⁴⁸² *Title II Order*, 30 FCC Rcd at 5633, para. 84.

small wireless ISP, or a larger but still small rural cable company or incumbent LEC, could do so.⁴⁸³ Further, from the perspective of many edge providers, end users do not single home, but subscribe to more than one platform (e.g., one fixed and one mobile) capable of granting the end user effective access to the edge provider's content (i.e., they multi-home). As the *Title II Order* acknowledges, to the extent multihoming occurs in the use of an application, there is no terminating monopoly.⁴⁸⁴

137. Moreover, to the extent a terminating monopoly exists for some edge providers, and it is not offset or more than offset by countervailing market power, there is the question of the extent to which the resulting prices are economically inefficient. A terminating (access) monopoly arises when customers on one side of the market, roughly speaking end users in our case, single home with little prospect of switching to another platform in the short run, while customers on the other side, roughly speaking edge providers in our case, find it worthwhile to multi-home. The terminating monopoly differs from conventional market power because it can arise despite effective competition between platforms. In that case, platforms must vigorously compete for single-homing end users, but have less need to compete for edge providers, who subscribe to all platforms.⁴⁸⁵ This means each ISP faces strong pressures to cut price to end users, but does not face similar pressures in pricing to edge providers.⁴⁸⁶ However, no ISP can earn supranormal profits, so any markups earned from edge providers in excess of total costs are generally passed through to end users.⁴⁸⁷ While such an outcome generally will not be efficient, there is no general presumption about the extent of that inefficiency, or even if prices to the multi-homers ideally should be lower than would emerge in the absence of a termination monopoly.⁴⁸⁸ In the present case, there is no substantive evidence in the record that demonstrates how different efficient prices to edge providers would be from the prices that would emerge without rules banning paid prioritization or prohibiting ISPs from charging providers at all.

138. Lastly, we find the record presents no compelling evidence that any inefficiencies, to the extent they exist, justify Title II regulation. There is no empirical evidence that the likely effects from conventional market power or the terminating monopoly, to the extent they exist, are likely to be

⁴⁸³ See, e.g., USTelecom Comments at 22 (“the idea that every ISP has market power because it is a “gatekeeper” to its subscribers is clearly rebutted by the position of small broadband providers. The suggestion that ISPs with only tens or even hundreds of thousands of end-users could have market power over an edge provider like Netflix is contrary to both common sense and the experience of those ISPs. Indeed, Netflix has set minimum size requirements for ISPs to enter into certain kinds of mutually beneficial arrangements.”).

⁴⁸⁴ See *Title II Order*, 30 FCC Rcd at 5630, para. 80 (“The ability of broadband providers to exploit this gatekeeper role could be mitigated if consumers multi-homed (i.e., bought broadband service from multiple networks).”).

⁴⁸⁵ Such an arrangement is mutually reinforcing. Single homers can reach all the multi-homers despite only subscribing to one platform. Multi-homers must subscribe to all platforms to reach all single homers.

⁴⁸⁶ See, e.g., M. Armstrong, Competition in Two-Sided Markets, 37 *RAND J. of Econ.* 668, 669-70 (2006) (Armstrong) (Describing cases when “one group single-homes while the other multi-homes” as a “competitive bottlenecks”: “to interact with an agent on the single-homing side, the multi-homing side has no choice but to deal with that agent’s chosen platform. Thus, platforms have monopoly power over providing access to their single homing customers for the multi-homing side.”); *id.* at 669 (However, “This tendency toward high prices for the multi-homing side is tempered when the single-homing side benefits from having many agents from the other side on their platform.”).

⁴⁸⁷ See, e.g., Armstrong at 677-80; Rysman at 132.

⁴⁸⁸ See Greenstein *et al.* at 146 (“There are . . . a number of open research questions . . . because the situation involves multiple participants in complementary economic relationships where they share the costs and benefits of actions, and users benefit from improvement and investment.”); White and Weyl at i (“competition’s impact on efficiency depends crucially on heterogeneity in users’ evaluations for network effects”); *id.* at 4-5, 26, 29. However, they “suggest the conditions necessary for competition to be. . . welfare-diminishing are quite strong.” *Id.* at 5; see also Joseph Farrell, *Efficiency and Competition between Payment Instruments*, 5 Review of Network Economics 26, 26-27 (2006) (Farrell) (discussing the context of credit cards).

important, let alone outweigh the harmful effects of Title II regulation. For all these reasons, we find no case for supporting Title II regulation of ISP prices to edge providers.⁴⁸⁹

139. *Externalities Associated with General-Purpose Technologies Are Not a Convincing Rationale for Title II Regulation.* Some commenters make somewhat inchoate arguments that ISPs should not be permitted to treat different edge providers' content differently or charge more than a zero price because the Internet is a "general purpose technology" and/or the services of some edge providers create positive externalities that the edge providers cannot appropriate.⁴⁹⁰ Hogendorn may propose the

⁴⁸⁹ We note at the outset that the terminating monopoly problem in voice telecommunications is one created by common-carriage regulation, not one solved by it. Specifically, carriers must interconnect with each other and originating carriers must pay terminating carriers rates set by the terminating carrier in their tariff (with some government oversight). That leads to a "bargaining" situation where one party sets the terms of the deal and the other must accept it or complain to the regulator—in other words, the regulations prohibit a normal free market from developing. Such regulatory requirements do not exist in broadband. *See* AT&T Comments at 32-33 & n.62 ("As the Commission ultimately acknowledged, however, this "[L]EC access charge" problem arose not from a market failure, but from the application of Title II regulation itself—specifically, from tariffing, interconnection, and geographic-averaging requirements. . . . The broadband market contains no such regulatory distortions and presents no "terminating access monopoly." . . . No broadband ISP can "tariff" the "service" of providing access to its end users, and no backbone or other third-party network has any regulatory obligation to interconnect with any ISP, let alone pay whatever rates the ISP might wish to charge for access to its users."); AT&T Economic Declaration at 35 ("terminating access" problems are not market failures to be ameliorated by regulatory intervention, but are actually market distortions *created by* regulation, most notably in the context of landline voice long-distance services. In that context, [IXCs] required access to [LEC] networks to terminate calls. LECs could charge high fees for that access and the IXCs were required to pay those fees. The IXCs could not charge their own customers different fees based on the LEC fees, and the LEC customers had no direct relationship with the IXCs. Because the end users did not have to bear the higher costs, they had no reason to switch to an alternative terminating access provider, which arguably gave their local provider market power in the provision of terminating access service. In contrast, if an Internet Service Provider attempted to block or throttle specific content, its end user customers would be directly affected by, and could directly observe, that behavior, and they would have the incentive and ability to react to that conduct. The same is true if an Internet Service Provider attempted to impose discriminatory charges on particular content providers[.]").

Furthermore, two additional aspects unique to the traditional telephone market created those problems: (1) Voice call originators, who are (with the exception of reverse charge calls) the analogue to edge providers in voice-telecommunications, do not directly negotiate with the carrier that sets call termination charges, but rather only have a relationship with the call originating carrier. However, the originating carrier gains from high call termination charges when it terminates calls on its own network, so faces a conflict of interest when negotiating call termination charges on behalf of its subscribers. In fact, such a regime provides carriers with a mechanism for using the input price of call termination to collude on retail prices. *See, e.g.,* M. Carter and J. Wright, *Interconnection in Network Industries*, *Rev. of Industrial Economics*, 1999 14 (1) 1-25; J.S. Gans and S.P. King, *Using 'bill and keep' interconnect Arrangements to Soften Network Competition*, *Economic Letters* 71 (3) 2001, 413-420; J-J. Laffont, P. Rey and J. Tirole, *Network Competition: I. Overview and Nondiscriminatory Pricing*, *The RAND Journal of Economics*, 29 (1) 1998, 1-37; Verizon Economic Declaration at 33–34. In contrast, edge providers can directly connect with an ISP to reach that ISP's end users, without seeking the ISP's help to terminate on another ISP's network (unlike in voice telecommunications), or can use intermediaries such as Cogent and Akamai, who largely do not terminate traffic to their own end users, so do not face the conflict that voice carriers face when negotiating termination charges. (2) Even if call originating carriers had good incentives to negotiate reasonable termination charges, regulation that requires interconnection, but does not appropriately regulate termination charges, seriously weakens their ability to obtain reasonable rates. Threatening to not interconnect is not an available negotiating ploy in telecommunications, but is one available to edge providers, especially larger ones, in negotiating with ISPs. Moreover, historically voice telephony consisted of geographic monopolies, making it pointless for one carrier to threaten another with disconnection since the end users of the disconnected carrier could not switch to a different carrier. Again, this is not true for Internet access.

⁴⁹⁰ *See, e.g.,* Lauren Comment ("The internet is a general purpose technology (examples of GPTs are the wheel and electricity). And you don't mess with a general purpose technology"); Lena Antin Comment (citing Tim Wu in

(continued....)

most coherent version of this argument: because the Internet is a general purpose technology (GPT), when an ISP sets a price to any edge provider, the ISP does not take into account the positive externalities generated by the broad (GPT) use of those edge providers' applications (just as edge providers do not).⁴⁹¹ Unfortunately, these commentators fail to define or substantiate the extent of the problem, if any; fail to demonstrate how much the situation would be improved by requiring nondiscriminatory treatment of all edge providers; do not explain why, if nondiscriminatory treatment is required, it should be at a zero price; do not assess whether the costs of such an intervention would be offset by the benefits;⁴⁹² and do not consider whether other less regulatory measures would be more appropriate.⁴⁹³ Instead, these commenters seek to apply Title II regulation to all ISPs, and consider the solution to their concern that certain services or the Internet itself might be inefficiently undersupplied (for reasons well beyond the control of ISPs) to be a ban on ISPs only (and not other input suppliers of edge providers) charging edge providers *any* price.

3. Pre-Existing Consumer Protection and Competition Laws Protect the Openness of the Internet

140. In the unlikely event that ISPs engage in conduct that harms Internet openness, despite the paucity of evidence of such incidents, we find that utility-style regulation is unnecessary to address such conduct. Other legal regimes—particularly antitrust law and the FTC's authority under Section 5 of the FTC Act to prohibit unfair and deceptive practices—provide protection for consumers. These long-established and well-understood antitrust and consumer protection laws are well-suited to addressing any openness concerns, because they apply to the whole of the Internet ecosystem, including edge providers, thereby avoiding tilting the playing field against ISPs and causing economic distortions by regulating only one side of business transactions on the Internet.⁴⁹⁴

141. *Consumer Protection.* The FTC has broad authority to protect consumers from “unfair or deceptive acts or practices.”⁴⁹⁵ As the nation's premier consumer protection agency, the FTC has exercised its authority, which arises from Section 5 of the FTC Act, to protect consumers in all sectors of the economy.⁴⁹⁶ The FTC has used its Section 5 authority to enjoin some of the practices at issue in this proceeding, such as throttling.⁴⁹⁷ The FTC is prohibited under the FTC Act from regulating common

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support of the proposition that an ISP's interference with VPN service would lead to a “loss of employee productivity nationwide”); Ryan Hogard Comment (“The open web environment has produced positive externalities and growth that have allowed the technology industry to become what it is today, and will continue to serve as a breeding ground only if it is preserved”).

⁴⁹¹ See, e.g., Economides Comment at 3 (citing Christiaan Hogendorn, “Spillovers and Network Neutrality,” in Gerald Faulhaber, Gary Madden, and Jeffrey Petchey, eds., *Regulation and the Performance of Communication and Information Networks*, Edward Elgar (2012)).

⁴⁹² For example, ISPs are one of many input suppliers to edge providers, so taxing only ISPs would create distortions in edge provider provision which could offset any (undemonstrated) benefits such tax would bring.

⁴⁹³ These problems are more acute if only specific (as yet unidentified) edge providers generate positive externalities in supply.

⁴⁹⁴ See Oracle May 5, 2017 *Ex Parte* Letter at 2; Free State Foundation Comments at 45; Cox Comments at 24 (“[T]he FTC would be able to prevent unfair or deceptive practices not only by BIAS providers, but by edge providers, backbone providers, and content delivery networks, thus helping ensure a level playing field, regardless of the size of the participant or the role it plays.”).

⁴⁹⁵ 15 U.S.C. § 45(a)(1).

⁴⁹⁶ See Free State Foundation Comments at 39-43; Acting Chairman Ohlhausen Comments at 10-11.

⁴⁹⁷ See Acting Chairman Ohlhausen Comments at 10-11 (“The practices that concern advocates of net neutrality regulation involve consumer protection issues. For example, much of the concern about Comcast's alleged treatment of certain BitTorrent streams was that it was not apparent to consumers, and therefore Comcast allegedly deceived

(continued....)

carriers.⁴⁹⁸ As a result, the Commission’s classification of broadband Internet access service as a common carriage telecommunications service stripped the FTC of its authority over ISPs. Therefore, as discussed in greater detail below,⁴⁹⁹ the return to Title I will increase the FTC’s effectiveness in protecting consumers.⁵⁰⁰ Today’s reclassification of broadband Internet access service restores the FTC’s authority to enforce any commitments made by ISPs regarding their network management practices that are included in their advertising or terms and conditions, as the FTC did so successfully in *FTC v. TracFone*.⁵⁰¹ The FTC’s unfair-and-deceptive-practices authority “prohibits companies from selling consumers one product or service but providing them something different,” which makes voluntary commitments enforceable.⁵⁰² The FTC also requires the “disclos[ur]e [of] material information if not disclosing it would mislead the consumer,” so if an ISP “failed to disclose blocking, throttling, or other practices that would matter to a reasonable consumer, the FTC’s deception authority would apply.”⁵⁰³ Today’s reclassification also restores the FTC’s authority to take enforcement action against unfair acts or practices. An unfair act or practice is one that creates substantial consumer harm, is not outweighed by countervailing benefits to consumers, and that consumers could not reasonably have avoided.⁵⁰⁴ A

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consumers about the service they purchased.”). In the recent *FTC v. TracFone* case, the FTC sued TracFone, a reseller of mobile broadband Internet access services, for making false claims in its advertising and terms and conditions about unlimited data. The FTC alleged that, in practice, TracFone throttled customers who used 1-3 GB of data (reducing speeds by 60-90%), and cut off services for customers who used about 4-5 GB a month. *FTC v. TracFone Wireless, Inc.*, No. 15-cv-00392-EMC (N.D. Cal. Feb. 20, 2015), <https://www.ftc.gov/enforcement/cases-proceedings/132-3176/straight-talk-wireless-tracfone-wireless-inc>; Complaint paras. 37, 40, *FTC v. TracFone*, No. 15-cv-00392-EMC (N.D. Cal. Feb. 20, 2015). Because TracFone’s data service was sold as pre-paid by the month, customers who wanted to use more unthrottled data had to purchase an additional month of service. The FTC alleged that TracFone’s practices were not a “response to real-time network congestion,” but motivated by the opportunity for increased revenue. *Id.* at para. 48. TracFone agreed to pay \$40 million and stipulated to a permanent injunction, which directed it to clearly disclose its network management practices. Stipulated Order for Permanent Injunction and Monetary Settlement, *FTC v. TracFone*, No. 15-cv-00392-EMC (N.D. Cal. Feb. 20, 2015).

⁴⁹⁸ See 15 U.S.C. § 45(a)(2) (exempting from Section 5 “common carriers subject to the Acts to regulate commerce”).

⁴⁹⁹ See *infra* Part III.E.3.

⁵⁰⁰ See 15 U.S.C. § 45(a)(2) (exempting from Section 5 “common carriers subject to the Acts to regulate commerce”); *infra* Part III.E.3.

⁵⁰¹ See Free State Foundation Comments at 42 (“There is industry near-consensus that end user[s] . . . should not be subject to blocking, substantial degrading, throttling, or unreasonable discrimination by broadband ISPs. This consensus is widely reflected in the service terms that broadband ISPs furnish to their end user subscribers. With the FTC’s jurisdiction restored, alleged breaches [of] no-blocking, no-substantial degrading, no-throttling and other terms of service by ISPs could be investigated by the FTC and made the subject of enforcement actions.”); Cox Comments at 23; NCTA Comments at 54 (“NCTA’s members, along with other ISPs, could agree to abide by a code of conduct embodying these principles, and/or could include these commitments as express provisions in their publicly stated policies. A code of conduct would ensure the open Internet principles are followed, while at the same time enabling ISPs to offer their customers the opportunity to choose the type of BIAS experience that they would like to receive. ISPs already have made such commitments publicly in a variety of settings. These commitments then would become enforceable by the FTC under Section 5 of the FTC Act.”).

⁵⁰² Acting Chairman Ohlhausen Comments at 10-11.

⁵⁰³ *Id.* at 11; see also FTC Broadband Report at 129. We therefore reject arguments that ISPs could avoid scrutiny with vague or changing commitments. See Comm’r McSweeney Comments at 4; Geoffrey Rogers Comments at 7; OTI New America Reply at 27; CCIA Reply at 19; Catherine Sandoval Reply at 34-35; Engine Reply at 11.

⁵⁰⁴ FTC Broadband Report at 129 (citing 15 U.S.C. § 45(n) and *Orkin Exterminating Co. v. FTC*, 849 F.2d 1354, 1363-66 (11th Cir. 1988)).

unilateral change in a material term of a contract can be an unfair practice.⁵⁰⁵ The FTC's 2007 Report on Broadband Industry Practices raises the possibility that an ISP that starts treating traffic from different edge providers differently without notifying consumers and obtaining their consent may be engaging in a practice that would be considered unfair under the FTC Act.⁵⁰⁶

142. Many of the largest ISPs have committed in this proceeding not to block or throttle legal content.⁵⁰⁷ These commitments can be enforced by the FTC under Section 5, protecting consumers without imposing public-utility regulation on ISPs.⁵⁰⁸ As discussed below, we believe that case-by-case, *ex post* regulation better serves a dynamic industry like the Internet and reduces the risk of over-regulation.⁵⁰⁹ We also reject assertions that the FTC has insufficient authority, because, as Verizon argues, “[i]f broadband service providers’ conduct falls outside [the FTC’s] grant of jurisdiction—that is,

⁵⁰⁵ FTC Broadband Report at 130.

⁵⁰⁶ *Id.* at 134.

⁵⁰⁷ See AT&T Comments at 1 (“[R]egardless of what regulatory regime is in place, we will conduct our business in a manner consistent with an open Internet.”); *id.* at 2 (“No ISP engages in blocking or throttling without a reasonable network-management justification . . . a baseline prohibition on blocking and throttling merely codifies standard industry practice.”); *id.* at 101 (AT&T “would support a set of bright-line rules that require transparent disclosures of network-management practices and prohibit blocking and throttling of Internet content without justification.”); Frontier Comments at 1 (Frontier “remains committed to the fundamental principles of Internet freedom—no blocking, throttling, or unreasonable discrimination based on the content of the communications.”); *id.* at 5-6 (“Frontier does not block or throttle customer access to content, and Frontier supports transparently sharing information about its services. . . . Frontier does not have any interest in favoring certain Internet content or in interfering with anyone’s right to free speech. Frontier remains committed to ensuring its users can access the content of their choice The fundamental Internet freedoms will remain as strong as ever, whether or not they are backed by outdated Title II regulation.”); Comcast Comments at 52-53 (“To be clear, we continue to strongly support a free and Open Internet and the preservation of modern, strong, and legally enforceable net neutrality protections. We don’t block, throttle, or discriminate against lawful content delivered over the Internet, and we are committed to continuing to manage our business and network with the goal of providing the best possible consumer experience. . . . Comcast will continue to support the principles of ensuring transparency and prohibiting blocking, throttling, and anticompetitive paid prioritization.”); Cox Comments at 1 (“Cox will continue to provide unimpeded access to all of the Internet content and services that its customers desire—without throttling or blocking lawful traffic or engaging in unreasonable discrimination.”); Letter from Barry Ohlson, Vice President, Cox Communications, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108 (filed Oct. 18, 2017) (*Cox Ex Parte*) (Cox is “unwaveringly committed to maintaining Internet freedom as a matter of sound business and public policy. . . . Cox will continue to provide unimpeded access to all of the Internet content and services that its customers desire—without throttling or blocking lawful traffic or engaging in unreasonable discrimination.”); Charter Comments at 2 (“Consistent with Charter’s pro-customer and pro-broadband approach, we have long put the principles of an open internet into practice in our own business. We do not block, throttle, or otherwise interfere with the online activity of our customers, and we are transparent with our customers regarding the performance of our service.”); Verizon Comments at 19 (“[W]e will not block [customers’] access to any legal content, applications, or services based on their source.”); NCTA Comments at 54 n. 215 (citing NCTA’s ad in the Washington Post, in which 21 ISPs, both large and small, affirmed that they will not “block, throttle or otherwise impair [a user’s] online activity.”).

⁵⁰⁸ See Acting Chairman Ohlhausen Comments at 11 (“Notably, many major BIAS providers have now explicitly promised to adhere to net neutrality principles. These kinds of promises are enforceable by the FTC, assuming it has jurisdiction over the BIAS provider.”). We reject arguments to the contrary. See Catherine Sandoval Reply Ex. C (“Major ISPs post policy statements on their websites proclaiming that the ISP does not block or throttle data, but these policies are excluded from their consumer contracts. . . [the commitments] are neither written in the language of promise nor condition, nor are they integrated into user agreements, rendering them unenforceable in contract.”).

⁵⁰⁹ As such, we reject arguments to the contrary. See Anant Raut FTC Comments at 3 (“[A]ll of these cases would have to be brought one at a time, which favors the ISPs, as opposed to the consumer-friendly way it works now, when the blanket prohibition prevents the activity from occurring in the first place.”); Geoffrey Rogers Comments at 7; Catherine Sandoval Reply at 45.

if their actions cannot be described as anticompetitive, unfair, or deceptive—then the conduct should not be banned in the first place.”⁵¹⁰ And the transparency rule that we announce today should allay any concerns about the ambiguity of ISP commitments,⁵¹¹ by requiring ISPs to disclose if the ISPs block or throttle legal content. Finally, we expect that any attempt by ISPs to undermine the openness of the Internet would be resisted by consumers and edge providers.⁵¹² We also observe that all states have laws proscribing deceptive trade practices.⁵¹³

143. *Antitrust.* The antitrust laws, particularly Sections 1 and 2 of the Sherman Act, as well as Section 5 of the FTC Act, protect competition in all sectors of the economy where the antitrust agencies have jurisdiction.⁵¹⁴ When challenged under the antitrust laws, the types of conduct and practices prohibited under the *Title II Order* would be evaluated under the “rule of reason,” which amounts to either a social benefit-cost test or a consumer welfare test.⁵¹⁵ The Communications Act includes an antitrust savings clause, so the antitrust laws apply with equal vigor to entities regulated by the

⁵¹⁰ Verizon Reply at 27. See OTI New America Reply at 27-31 (arguing paid prioritization and free expression concerns not protected by FTC).

⁵¹¹ See Anant Raut FTC Comments at 2; OTI Reply at 28; Public Knowledge Reply at 10-11; CCIA Reply at 19. For the same reasons, the transparency rule allows us to reject the argument that antitrust and consumer protection enforcers cannot detect problematic conduct. See Comm’r McSweeney Comments at 6 (“Detection of discriminatory conduct by ISPs may be challenging in the first place. For example, how would a typical consumer be able to determine whether a slow or grainy download was caused by malfeasance or something routine and benign?”); CCIA Reply at 21.

⁵¹² NCTA Comments at 52 (“If an ISP were to threaten to block or degrade access to [major edge providers], such a strategy would be self-defeating and immediately provoke a hostile reaction from consumers.”); Acting Chairman Ohlhausen Comments at 9-10 (“Advocates vigorously argue, citing surveys, anecdotes, and counts of comments filed, that consumers place great value in the equal treatment of data by ISPs. In that case, any ISP that systemically degrades applications and content that its subscribers demand will face a consumer backlash. There is strong evidence that edge providers are quite capable of mobilizing their customers to make known their demands. Indeed, the limited number of non-neutral practices even before the 2015 Order suggests that ISPs are already accommodating consumer demands.”).

⁵¹³ See American Legislative Exchange Council (ALEC) Comments at 2. ALEC observes that “[s]tates are free to bring their own enforcement actions, often through their state’s attorney general, against providers that violate representations made to consumers. State consumer protection laws may also permit private causes of action brought by disaffected consumers and companies.” *Id.* at 3.

⁵¹⁴ 15 U.S.C. §§ 1-2, 45; see also FTC Staff Comments at 24.

⁵¹⁵ A welfare approach was established in *Reiter v. Sonotone Corp.*, 442 U.S. 330, 343 (1979), a result generally attributed to the influence of Robert Bork. See Joshua D. Wright and Douglas H. Ginsburg, *The Goals of Antitrust: Welfare Trumps Choice*, 81 Fordham L. Rev. 2405 (2013). There is some contention as to whether the standard is one of total welfare, following Bork (Joseph Farrell and Michael L. Katz, *The Economics of Welfare Standards in Antitrust*, 2 CPI Journal at 3 (2006)), or consumer welfare (see, e.g., C.S. Damero, *Present at Antitrust’s Creation: Consumer Welfare in the Sherman Act’s State Statutory Forerunners*, 125 Yale L.J. 1072 (2016)). Statements in FTC documents in the record support both approaches. See, e.g., FTC Broadband Report at 121 (“Conduct that has the potential to be both anticompetitive and harmful to consumers, under certain conditions, and procompetitive and capable of improving efficiency, under other conditions, is analyzed under the ‘rule of reason’ to determine the net effect of such conduct on consumer welfare.”); Ohlhausen, *Antitrust Over Net Neutrality*, 15 Colo. Tech. L.J. at 142 (“The rule of reason adopts an all-encompassing inquiry, paying close attention to the consumer benefits and downsides of the challenged practice based on the facts at hand. If that inquiry shows that a particular act of paid prioritization, throttling, or blocking enhanced consumer welfare, then that should be the end of the matter from a competition standpoint.”).

Commission.⁵¹⁶ Should the hypothetical harms that proponents of Title II imagine eventually come to pass, application of the antitrust laws would address those harms.⁵¹⁷

144. Section 1 of the Sherman Act bars contracts, combinations, or conspiracies in restraint of trade, making anticompetitive arrangements illegal. If ISPs reached agreements to unfairly block, throttle, or discriminate against Internet conduct or applications, these agreements would be *per se* illegal under the antitrust laws.⁵¹⁸ Section 2 of the Sherman Act, which applies if a firm possesses or has a dangerous probability of achieving monopoly power, prohibits exclusionary conduct, which can include refusals to deal and exclusive dealing, tying arrangements, and vertical restraints.⁵¹⁹ Section 2 makes it illegal for a vertically integrated ISP to anticompetitively favor its content or services over unaffiliated edge providers' content or services.⁵²⁰ Treble damages are available under both Section 1 and Section 2.⁵²¹

145. Most of the examples of net neutrality violations discussed in the *Title II Order* could have been investigated as antitrust violations. Madison River Communications blocked access to VoIP to foreclose competition to its telephony business; an antitrust case would have focused on whether the company was engaged in anticompetitive foreclosure to preserve any monopoly power it may have had over telephony. Whether one regards Comcast's behavior toward BitTorrent as blocking or throttling,⁵²² it could have been pursued either as an antitrust or consumer protection case. The Commission noted that BitTorrent's service allowed users to view video that they might otherwise have to purchase through Comcast's Video on Demand service⁵²³—a claim that would be considered an anticompetitive foreclosure

⁵¹⁶ 47 U.S.C. § 152(b) (“[N]othing in this Act . . . shall be construed to modify, impair, or supersede the applicability of any of the antitrust laws.”).

⁵¹⁷ Michael L. Katz, *Wither U.S. Net Neutrality Regulation?*, 50 Rev. Ind. Org at 10 (2017) (“[T]he Commission has not established that its regulations offer significant incremental benefit over existing state and federal antitrust policies of general applicability. The Commission has never offered a convincing explanation of why, if a BIAS provider's actions raise serious competitive concerns, those concerns could not be addressed using existing antitrust laws. . . [T]here is substantial experience with the enforcement of antitrust laws, which is important because antitrust enforcement does not typically create the industry-wide uncertainty that has been triggered by the Commission's vague, new regulations.”); FreedomWorks Comments at 9; Free State Foundation Comments at 39-40 (“Title I reclassification . . . should not be understood as an abandonment of regulatory oversight of the market. Rather, it should be understood as a policy determination that consumers and the broadband market can most effectively be protected by empowering agencies whose core competencies include enforcement of competition law.”); Judicial Watch Comments at 12 (asserting that “most of the *potential* or imagined future violations of net neutrality principles are already illegal under antitrust laws, including acts like website blocking, charging monopoly rents, collusion between industry players, and unfair competition. The existing antitrust laws can already be enforced against broadband providers by the Justice Department, the Federal Trade Commission, and the 50 State Attorneys General.”); IIA Reply at 25.

⁵¹⁸ See FTC Staff Comments at 27. EFF argues that the single entity doctrine means that a vertically-integrated ISP could collude with its affiliated content arm without fear of the antitrust laws. EFF Comments at 12. This argument is inapposite, however, because such a claim against a vertically-integrated ISP would likely be based on Section 2 of the Sherman Act under an attempted monopolization theory, rather than as a Section 1 collusion claim.

⁵¹⁹ See FTC Staff Comments at 26-29. We note that FTC enforcement of Section 5 is broader and would apply in the absence of monopoly power.

⁵²⁰ See *id.*

⁵²¹ See *id.*

⁵²² Comcast claimed it merely delayed the data, but the Commission determined that this was immaterial to the decision. *Comcast-BitTorrent Order*, 23 FCC Rcd at 13053-54, para. 44.

⁵²³ *Comcast-BitTorrent Order*, 23 FCC Rcd at 13030, para. 5.

claim under antitrust.⁵²⁴ Comcast also failed to disclose this network management practice and initially denied that it was engaged in any throttling⁵²⁵—potentially unfair or deceptive acts or practices. If an ISP that also sells video services degrades the speed or quality of competing “Over the Top” video services (such as Netflix),⁵²⁶ that conduct could be challenged as anticompetitive foreclosure.

146. Among the benefits of the antitrust laws over public utility regulation are (1) the rule of reason allows a balancing of pro-competitive benefits and anti-competitive harms; (2) the case-by-case nature of antitrust allows for the regulatory humility needed when dealing with the dynamic Internet; (3) the antitrust laws focus on protecting competition; and (4) the same long-practiced and well-understood laws apply to all Internet actors.

147. *Rule of reason.* The unilateral conduct that is covered by Section 2 of the Sherman Act would be evaluated under the rule of reason, “an all-encompassing inquiry, paying close attention to the consumer benefits and downsides of the challenged practice based on the facts at hand.”⁵²⁷ We believe that such an inquiry will strike a better balance in protecting the openness of the Internet and continuing to allow the “permissionless innovation”⁵²⁸ that made the Internet such an important part of the modern U.S. economy, as antitrust uses a welfare standard defined by economic analysis shaped by a significant body of precedent.⁵²⁹

148. The case-by-case, content-specific analysis established by the rule of reason will allow new innovative business arrangements to emerge as part of the ever-evolving Internet ecosystem.⁵³⁰ New arrangements that harm consumers and weaken competition will run afoul of the Sherman Act, and successful plaintiffs will receive treble damages.⁵³¹ The FTC and DOJ can also bring enforcement actions in situations where private plaintiffs are unable or unwilling to do so. New arrangements benefiting

⁵²⁴ The Commission itself concluded that “Comcast’s practice selectively blocks and impedes the use of particular applications, and we believe that such disparate treatment poses significant risks of anticompetitive abuse.” *Comcast-BitTorrent Order*, 23 FCC Rcd at 13055-56, para. 47. While it is less clear whether AT&T’s three-month blocking of Facetime for customers with unlimited mobile data plans could have been subject to an antitrust challenge, the same forces that led AT&T to change its policy in that instance likely apply now, but with greater strength.

⁵²⁵ *Comcast-BitTorrent Order*, 23 FCC Rcd at 13030-31, 13058-59, paras. 6, 52-53.

⁵²⁶ AppNexus Comments at 2 (“[ISPs] might also create new tolls that only big companies would be able to afford. We have already seen this happen in some cases, such as cable companies imposing fees on services like Netflix. . . .”)

⁵²⁷ Ohlhausen, *Antitrust Over Net Neutrality*, 15 Colo. Tech. L.J. at 142.

⁵²⁸ See R Street Comments at 26-27.

⁵²⁹ Compare this to the Internet Conduct Standard, which would examine a variety of considerations broader than consumer welfare, as well as factors yet to be determined. See *infra* Part IV.B.3.a.

⁵³⁰ Acting Chairman Ohlhausen Comments at 12 (“In dynamic, innovative industries like internet services, an *ex post* case-by-case enforcement-based approach has advantages over *ex ante* prescriptive regulation. It mitigates the regulator’s knowledge problem and allows legal principles to evolve incrementally.”). But see Cmm’r McSweeney Comments at 4 (“[E]x ante rules provide innovators with confidence that discriminatory network access will not threaten their chances for competitive success.”).

⁵³¹ Thomas W. Hazlett & Joshua D. Wright, *The Effect of Regulation on Broadband Markets: Evaluating the Empirical Evidence in the FCC’s 2015 “Open Internet” Order*, Review of Industrial Organization at 3 (2017); Joshua D. Wright, *Antitrust Provides a More Reasonable Framework for Net Neutrality Regulation*, Perspectives from FSF Scholars at 3 (Aug. 16, 2017), http://www.freestatefoundation.org/images/Antitrust_Provides_a_More_Reasonable_Framework_for_Net_Neutralit_y_Regulation_081617.pdf.

consumers, like so many Internet innovations over the last generation, will be allowed to continue, as was the case before the imposition of Title II utility-style regulation of ISPs.⁵³²

149. We reject commenters' assertions that the case-by-case nature of antitrust enforcement makes it inherently flawed.⁵³³ A case-by-case approach minimizes the costs of overregulation, including tarring all ISPs with the same brush, and reduces the risk of false positives when regulation is necessary.⁵³⁴ We believe the Commission's bright-line and Internet conduct rules are more likely to inhibit innovation before it occurs, whereas antitrust enforcement can adequately remedy harms should they occur. As such, we reject the argument that innovation is best protected by *ex ante* rules and command-and-control government regulation.⁵³⁵ Further, while a handful of ISPs are large and vertically integrated with content producers, most ISPs are small companies that have no leverage in negotiations

⁵³² As the economic literature teaches that vertical integration generally increases efficiency, the antitrust laws will permit greater innovation in vertical agreements than the tightly regulated confines of the *Title II Order*. See Hylton, *Law, Social Welfare, and Net Neutrality*, at 8 (“[N]et neutrality goes further than necessary. Antitrust laws already exist for regulating anticompetitive conduct, and they attempt to regulate with a finer brush than the net neutrality rule. An antitrust court would take efficiencies into account in any analysis of a complaint against a vertically-integrated platform owner on antitrust grounds. The net neutrality principle ignores efficiencies.”); Wright, *Antitrust Provides a More Reasonable Framework for Net Neutrality Regulation*, at 4 (“The rule of reason analysis would not result in a categorical ban on vertical agreements. Instead, by applying rule of reason, vertical agreements would be analyzed on a case-by-case basis, and be rejected only if careful economic analysis concluded there are anticompetitive effects greater than any procompetitive effects or efficiencies. . . . The economics literature on vertical agreements is consistent and very clear: while vertical agreements are capable of harming competition in the manner contemplated by net neutrality proponents, vertical agreements are more often beneficial to consumers.”); Hazlett & Wright, *The Effect of Regulation on Broadband Markets* at 3 (explaining that “vertical integration (including coordination between input suppliers and their downstream partners) is ubiquitous throughout the economy and in most cases is overwhelmingly efficient and provides net benefits to consumers”); Verizon Economic Declaration at 12-13 (“Vertical arrangements are widely-recognized to be generally procompetitive This is not to say that vertical arrangements can never be anticompetitive, but such instances can be addressed through *ex post* case-by-case enforcement . . . , and do not justify *ex ante* regulation that imposes a blanket ban or other substantial restrictions on vertical contractual arrangements between broadband and content providers. . . . The *Title II Order* and proponents . . . fail to identify anticompetitive vertical arrangements that would be better addressed through public utility-style regulation, rather than by case-by-case oversight by antitrust agencies.”).

⁵³³ See INCOMPAS Comments at 71-72; OTI New America Comments at 16; Comm’r McSweeney Comments at 4-5 (“Even if the FTC were to detect the practice, investigate, and conclude that it was competitively harmful, we could not travel back in time to undo the harm to the excluded rival or to the competitive evolution of the marketplace. An up-front rule, by contrast, would be more likely to prevent the harm in the first place.”); Voices Coalition Comments at 34 (asserting that “transfer[ring] FCC jurisdiction to the [FTC and DOJ] are unlikely to curb anti-competitive practices and allow the agency to step in only after consumers have experienced harm. This reactionary regulatory regime unduly burdens consumers and would cause confusion and dysfunction.”); CCIA Reply at 20 (“[I]dentifying instances of [ISPs] blocking or interfering with users’ expression after it occurs does not change the fact that the users have been harmed. There is no easy remedy after the fact—speech that has been chilled cannot be microwaved.”).

⁵³⁴ See TPI Comments at 11 (“Antitrust is preferable to the OIO rules, because antitrust can be applied on a case-by-case basis when the facts indicate that the conduct is anticompetitive.”); Singer, *Paid Prioritization and Zero Rating*, at 9 (“[W]ith any blanket ban involving vertical restraints there is a risk that nondiscriminatory, procompetitive arrangements would be banned as well. When conduct can be motivated for both procompetitive and anticompetitive reasons, economists (and antitrust law) tend to favor *ex post* rules so as to avoid those types of error costs.”).

⁵³⁵ See, e.g., INCOMPAS Comments 69-70 (citing Project Concord, OVD which tried to use the *ex post* rules put in place after the Comcast-NBC Universal merger); IFTA Comments at 7. *But see* Acting Chairman Ohlhausen Comments at 13 (“even prescriptive rules must be enforced, and the outcomes of such enforcement actions are not inherently predictable, particularly when the prescriptive rules are out of date or applied to technologies and business models that were not contemplated when the rules were adopted.”).

with large edge providers, which include some of the most valuable companies in the world.⁵³⁶ Regulating these companies is unnecessarily harmful.⁵³⁷ The antitrust laws allow each ISP to be regulated as appropriately tailored to the ISP's circumstances.⁵³⁸

150. Moreover, the case-by-case analysis, coupled with the rule of reason, allows for innovative arrangements to be evaluated based on their real-world effects, rather than a regulator's *ex ante* predictions.⁵³⁹ Such an approach better fits the dynamic Internet economy than the top-down mandates imposed by Title II.⁵⁴⁰ Further, the antitrust laws recognize the importance of protecting innovation.⁵⁴¹ Indeed, the FTC has pursued several cases in recent years where its theory of harm was decreased innovation.⁵⁴² Accordingly, we believe that antitrust law can sufficiently protect innovation, which is a matter of particular importance for the continued development of the Internet.⁵⁴³ We also find that the combination of the transparency rule, ISP commitments, and their enforcement by the FTC sufficiently

⁵³⁶ ACA Comments at 32-33; USTelecom Comments at 22; ACLP Comments at 8-9.

⁵³⁷ *See supra* paras. 103-106.

⁵³⁸ *But see* AARP Comments at 13 (“[A]ntitrust . . . , with its characteristic case-by-case approach, could result in segmented regulation of broadband markets, with some providers—those whose conduct has been required to conform to procompetitive behavior—offering superior opportunities for consumers and edge providers, as opposed to other providers that were not subject to a suit, or which were able to negotiate a weaker level of protection for consumers and edge providers.”).

⁵³⁹ *See* Acting Chairman Ohlhausen Comments at 12 (“A case-by-case approach also focuses on actual or likely, specifically-pled harms rather than having to predict future hypothetical harms.”).

⁵⁴⁰ *Id.*

⁵⁴¹ We accordingly reject the arguments that antitrust cannot protect innovation. *See, e.g.*, Engine Reply at 10-11 (asserting that “antitrust law is principally designed to address direct and immediate competition or consumer harms and generally cannot rectify problems associated with lost innovation, even though this decrease in innovation will ultimately result in less competition and in turn less consumer welfare down the road”); Singer, *Paid Prioritization and Zero Rating*, at 2 (“[I]f the net neutrality concern is a loss to edge innovation, a slow-paced antitrust court is not the right venue. The Internet-based industries at issue here are strongly characterized by first-mover effects and network effects, which renders antitrust’s slow-moving process especially problematic. While public enforcement of innovation-based claims is possible, it likely would take an edge provider months if not years to motivate an antitrust agency to bring a case,” and arguing lost innovation is a difficult case to make under antitrust laws); Akamai Comments at 8-9 (“Broadband provider practices favoring affiliates are unlikely to manifest in the type of demonstrable price hikes or output effects that are most common predicates to successful antitrust challenges. Thus, the kind of challenge likely to be at issue here is among the most difficult to pursue, requiring significant financial resources, taking years to resolve, and resulting in monetary damages.”).

⁵⁴² *See* Wright, *Antitrust Provides a More Reasonable Framework for Net Neutrality Regulation* at 6-7 (the FTC alleged harm to innovation in 54 of the 164 mergers it challenged from 2004 to 2014, and noting DOJ and FTC Section 2 cases which alleged harm to innovation).

⁵⁴³ Some commenters argue that antitrust law is more limited in scope than the rules in the *Title II Order*, antitrust enforcement necessarily takes place after some harm has already occurred, and proving an antitrust violation can be expensive and time-consuming. *See, e.g.*, OTI New America Comments at 15-17. However, with a body of established and evolving precedent, the FTC’s antitrust enforcement is fact-based, flexible and applicable to Internet-related markets before the *Title II Order*. 15 U.S.C. § 45; FTC Staff Comments at 23-25. We find that the antitrust framework will strike a better balance by protecting competition and consumers while providing industry with greater regulatory certainty. *See, e.g.*, FTC Staff Comments at 23-25 (“The competitive issues raised by the growth of the Internet and all of its subsidiary technologies are not new to antitrust law . . . the FTC is able to protect consumers and the competitive process without placing undue burdens on industry”).

address the argument made by several commenters that antitrust moves too slowly and is too expensive for many supposed beneficiaries of regulation.⁵⁴⁴

151. Additionally, the existence of antitrust law deters much potential anticompetitive conduct before it occurs, and where it occurs offers recoupment through damages to harmed competitors.⁵⁴⁵ Some commenters have cast doubt on the effectiveness of *ex post* enforcement, preferring *ex ante* rules.⁵⁴⁶ Yet as the FTC staff noted in its comments, this is a false dichotomy. “Effective rule of law requires both appropriate standards—whether established by common law court, Congress in statute, or by an agency in rules—and active enforcement of those standards.”⁵⁴⁷ Even the “bright line” rules in the *Title II Order* contain an exception for “reasonable network management.”⁵⁴⁸ An ISP accused of violating those rules would be the subject of an *ex post* FCC enforcement action. The FCC would have to determine *ex post* whether a challenged practice constituted technical network management or not.

152. Moreover, economic research has demonstrated that the threat of antitrust enforcement deters anticompetitive actions. Block et al. (1981) find that an increase in the likelihood of antitrust enforcement in the U.S. has a significant effect on lowering prices to consumers.⁵⁴⁹ Similarly it has been

⁵⁴⁴ Comm’r McSweeney Comments at 6 (“[E]*x ante* rules provide innovators with confidence that discriminatory network access will not threaten their chances for competitive success. A system that relies solely on backward-looking antitrust enforcement, on the other hand, cannot provide the same assurances because it would require detection, investigation, and potentially lengthy rule-of-reason analysis.”). *See also* Akamai Comments at 10 (antitrust litigation will be “almost certainly be too little and too late, particularly in the highly dynamic Internet environment. Thus, the kind of challenge likely to be at issue here is among the most difficult to pursue, requiring significant financial resources, taking years to resolve, and resulting in monetary damages”); AARP Comments at 12-13; Entertainment Software Association Comments at 8-9; Vimeo Comments at 24-25 (“We do not believe that [antitrust] laws provide an effective substitute for clear rules that bar discriminatory activity. Problems with video quality that are not addressed in the near term can have profound and lasting impacts on an edge provider’s user base and market share. A private antitrust lawsuit is a costly proposition that takes years to investigate and prosecute, by which time any damage will have been done and irreversibly so. Most Internet startups do not have the resources to fund the battery of lawyers and technical and economic experts required to demonstrate whether a poor streaming experience was caused by the streaming service or the broadband carrier and whether the broadband carrier acted in an anti-competitive fashion.”); Engine Reply at 9-10 (“Startups operate on incredibly short runways and thin margins. By the time the FTC or DOJ Antitrust Division can initiate an action to remedy abusive ISP practices, those abusive practices will have already put affected startups out of business. Considering how lengthy and expensive antitrust cases can be, it is impossible to imagine any startup having the resources to survive long enough for an FTC proceeding to end, much less initiating and winning an antitrust action.”); Electronic Gaming Foundation Comments at 3; Kip Comments at 3; Entertainment Software Association Reply at 4; American Association of Community Colleges et al. Reply at 8-9.

⁵⁴⁵ *See* Acting Chairman Ohlhausen Comments at 13 (“Some have criticized the FTC’s case-by-case approach as reactive, with no capability to prevent future injuries. Yet civil law enforcement has always served as both a *corrective* for the specific behavior of the defendant as well as a *deterrent* against similar future actions by the same or other actors.”).

⁵⁴⁶ *See, e.g.*, Commissioner McSweeney Comments at 6; Vimeo Comments at 24-25; Internet Association Comments at 26; INCOMPAS Comments 69–70; IFTA Comments at 16.

⁵⁴⁷ FTC Staff Comments at 21.

⁵⁴⁸ *See, e.g.*, 47 CFR § 8.5.

⁵⁴⁹ Michael Kent Block, Frederick Carl Nold, and Joseph Gregory Sidak, *The Deterrent Effect of Antitrust Enforcement*, 89 J. Pol. Economy at 429-445 (June 1981). Additional evidence of the effectiveness of antitrust enforcement can be found in David F. Lean, Jonathan D. Ogur, and Robert P. Rogers, *Does Collusion Pay . . . Does Antitrust Work?*, 51 Southern Economic Journal at 828-841 (Jan. 1985); Michael K. Block and Jonathan S. Feinstein, *Controlling Collusion in the Construction Industry: Some Lessons from Recent U. S. Experience*, 10 World Competition at 41-55; Dosoung Choi and George C. Philippatos, *Financial Consequences of Antitrust Enforcement*, 65 Rev. Econ. & Statistics at 501-506 (Aug. 1983).

found that countries with vigorous antitrust statutes and enforcement, such as the United States, reduce the effects of anticompetitive behavior when it does occur.⁵⁵⁰ There is also evidence that firms, once they have been subject to an enforcement action, are less likely to violate the antitrust laws in the future.⁵⁵¹ Overall, we have confidence that the use of antitrust enforcement to protect competition in the broadband internet service provider market will ensure that consumers continue to reap the benefits of that competition. We conclude that the light-touch approach that we adopt today, in combination with existing antitrust and consumer protection laws, more than adequately addresses concerns about Internet openness, particularly as compared to the rigidity of Title II.⁵⁵²

153. *Focus on protecting competition.* One of the benefits of antitrust law is its strong focus on protecting competition and consumers. If a particular practice benefits consumers, antitrust law will not condemn it. The fact that antitrust law protects competition means that it also protects other qualities that consumers value. “[The] assumption that competition is the best method of allocating resources in a free market recognizes that all elements of a bargain—quality, service, safety, and durability—and not just the immediate cost, are favorably affected by the free opportunity to select among alternative offers.”⁵⁵³ The market competition that antitrust law preserves will protect values such as free expression, to the extent that consumers value free expression as a service attribute and are aware of how their ISPs’ actions affect free expression.⁵⁵⁴ The lack of evidence of harms to free expression on the Internet also bolsters our belief that Title II is unnecessary to protect social values that are not the focus of antitrust. The anecdotes of harms to Internet openness cited by supporters of the *Title II Order* almost exclusively concern business decisions regarding network management,⁵⁵⁵ rather than being aimed at or impacting political expression.⁵⁵⁶ In any case, the transparency rule and the ISP commitments backed up by FTC enforcement focus are targeted to preserving free expression, particularly the no-blocking commitment.⁵⁵⁷

⁵⁵⁰ Clarke and Everett found that the effects of an international vitamin cartel were reduced in countries with an antitrust authority that was actively engaged in enforcement. Julian L. Clarke and Simon J. Everett, *Deterrent Effects of National Anticartel Laws: Evidence from International Vitamins Cartel*, *Antitrust Bulletin* at 689-726 (Fall 2003).

⁵⁵¹ Sally S. Simpson and Christopher S. Koper, *Deterring Corporate Crime*, 30 *Criminology* at 347-376 (Aug. 1992).

⁵⁵² Some commenters have raised issues about the feasibility of antitrust as applied to some potential harms. CompTIA and OTI claim that the unilateral refusal to deal and essential facilities cases are more difficult to bring after *Verizon Commc’ns, Inc. v. Law Offices of Curtis V. Trinko*, 540 U.S. 398 (2004) and *Pacific Bell Tel. Co. v. linkLine Commc’ns, Inc.*, 555 U.S. 438 (2009). See CompTIA Comments at 3 (“The decisions in these cases suggest that slowing an edge provider’s content down to crippling slow speeds may not qualify as a unilateral refusal to deal or violate the essential facilities doctrine under antitrust law.”); OTI New America Comments at 17; Singer, *Paid Prioritization and Zero Rating*, at 3 (“[T]he recent tendency in antitrust jurisprudence has been to relax nondiscrimination obligations . . . *Trinko* cast doubt in the viability of the essential facilities doctrine, particularly as applied to regulated industries, such as telecom and potentially Internet access”).

To the extent these commenters are correct, the transparency rule and FTC enforcement of the commitments (based on Section 5 of the FTC’s Act broader reach than antitrust) remain to protect the openness of the Internet, and the shifts in antitrust doctrine do not support the imposition of Title II.

⁵⁵³ *Nat’l Soc’y of Prof’l Eng’rs v. United States*, 435 U.S. 679, 695 (1978).

⁵⁵⁴ Ohlhausen, *Antitrust Over Net Neutrality*, 15 *Colo. Tech. L.J.* at 145-46. The competitive process and antitrust would not protect free expression in cases where consumers have decided that they are willing to tolerate some blocking or throttling in order to obtain other things of value.

⁵⁵⁵ See *supra* paras. 109-115.

⁵⁵⁶ Ohlhausen, *Antitrust Over Net Neutrality*, 15 *Colo. Tech. L.J.* at 146-47.

⁵⁵⁷ Therefore, we believe that the argument that antitrust law does not consider non-economic factors such as free expression and diversity fails to support Title II regulation. See Cmm’r McSweeney Comments at 4; Sen. Franken

(continued....)

154. Finally, applying antitrust principles to ISP conduct is consistent with longstanding economic and legal principles that cover all sectors of the economy, including the entire Internet ecosystem.⁵⁵⁸ Applying the same body of law to ISPs, edge providers, and all Internet actors avoids the regulatory distortions of Title II, which “impos[ed] asymmetric behavioral regulations . . . on broadband ISPs under the banner of protecting Internet openness, but le[ft] Internet edge providers free to threaten or engage in the same types of behavior prohibited to ISPs free of any *ex ante* constraints.”⁵⁵⁹ Our decision today to return to light-touch Title I regulation and the backstop of generally-applicable antitrust and consumer protection law “help[s] to ensure a level, technology-neutral playing field” for the whole Internet.⁵⁶⁰

D. Restoring the Information Service Classification is Lawful and Necessary

155. The Commission has the legal authority to return to the classification of broadband Internet access service as an “information service.” The Supreme Court made clear when affirming the Commission’s original information service classification of cable modem service that Congress “delegated to the Commission authority to execute and enforce the Communications Act, as well as prescribe the rules and regulations necessary in the public interest to carry out the provisions.”⁵⁶¹ This delegation includes the legal authority to interpret the definitional provisions of the Communications Act.⁵⁶² Nothing in the record meaningfully contests this fundamental point.⁵⁶³ Relying on that authority, we change course from the *Title II Order* and restore the information service classification of broadband Internet access service, which represents the best interpretation of the Act. As discussed above, this

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Comments at 3-4; CCIA Reply at 20; Public Knowledge Reply at 9-10; American Association of Community Colleges et al. Reply at 8; Geoffrey Rogers Comments at 7; EFF Comments at 10; Catherine Sandoval Reply at 45; ITIF Comments at 18; Free Press Comments at 68.

⁵⁵⁸ See, e.g., ICLE Comments at 71; Frontier Comments at 10-11; ACLP Comments at 8-10; ACA Comments at 67; Free State Comments at 38-40; CEI Comments at 6.

⁵⁵⁹ ACA Comments at 67.

⁵⁶⁰ NCTA Comments at 56. See *id.* (“One important advantage of an FTC-led approach is that *all* participants in the Internet ecosystem could be subject to oversight by a single agency. Indeed, whereas the [FCC] has suggested it lacks authority to engage in open Internet oversight over entities other than [ISPs], the FTC would be able to prevent . . . unfair or deceptive acts or practices by others in the Internet ecosystem as well”); Oracle May 5, 2017 *Ex Parte* Letter at 2 (criticizing *Title II Order* for “focusing only on traditional access providers [while] ignor[ing] the largest and most dominant internet players from a customer perspective,” and supporting FTC “as the impartial cop on the broadband beat with authority to reach all the participants in the internet economy”).

⁵⁶¹ *Brand X*, 545 U.S. at 980.

⁵⁶² *Id.* at 980-81.

⁵⁶³ For this reason, and for those set forth more fully in Section III above, we reject claims that an information service classification is unambiguously precluded. See, e.g., CDT Comments at 5-17; Free Press Comments at 41-64; Friends of Community Media Comments at 5-8; RISE Stronger Comments at 10-16. Such assertions are contrary to our interpretation of the statutory language and our application of it to the facts before us and also find no support in the relevant court precedent addressing prior classification decisions, which either affirmed an information service classification or affirmed the recent telecommunications service classification as merely a permissible interpretation of ambiguous statutory language. See, e.g., *Nat. Cable & Telecomms. Ass’n v. Brand X Internet Svcs.*, 545 U.S. 967, 986-1000 (2005) (*Brand X*); *U.S. Telecom Ass’n v. FCC*, 825 F.3d 674, 701-11 (D.C. Cir. 2016) (*USTelecom*); *Time Warner Telecom, Inc. v. FCC*, 507 F.3d 205, 215-20 (3d Cir. 2007). In making these arguments, commenters do not dispute the Commission’s general authority to interpret and apply the Act, but merely present arguments regarding the reasonableness or permissibility of interpreting or applying the Act in particular ways.

action is supported by the text, structure, and history of the Act, the nature of ISP offerings, judicial and Commission precedent, and the public policy consequences flowing from reclassification.⁵⁶⁴

156. An agency of course may decide to change course, and such a decision is not, as some commenters suggest, inherently suspect.⁵⁶⁵ The Supreme Court has observed that there is “no basis in the Administrative Procedure Act or in our opinions for a requirement that all agency change be subjected to more searching review. . . . [I]t suffices that the new policy is permissible under the statute, that there are good reasons for it, and that the agency *believes* it to be better, which the conscious change of course adequately indicates.”⁵⁶⁶ Relevant precedent holds that we need only “examine the relevant data and articulate a satisfactory explanation for [our] action,” a duty we fully satisfy here.⁵⁶⁷ The “possibility of drawing two inconsistent conclusions from the evidence does not prevent an administrative agency’s finding from being supported by substantial evidence.”⁵⁶⁸ Rather, we are “entitled to assess administrative records and evaluate priorities” in light of our current policy judgments.⁵⁶⁹ As the Court

⁵⁶⁴ We reject arguments against reclassification based on alleged shortcomings in the justification for changing course provided in the *Internet Freedom NPRM* given that we fully explain here our rationale for revisiting the *Title II Order*’s classification of broadband Internet access service. *See, e.g.*, National Consumer Law Center Comments at 8; Parrhesia Project Comments at 1.

⁵⁶⁵ *See, e.g.*, Cogent Comments at 33 (Reversing course based on disagreement with the reasoning in the first instance “undermines the deference-to-expertise justification that underlies courts’ deference to agency interpretations of statutes they manage.”); NTCH/Flat Wireless Comments at 16 (“[C]hange must start from the principle that the existing law is entitled to deference, and change requires more than simple disagreement.”).

⁵⁶⁶ *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 514, 515 (2009) (*Fox*) (emphasis in original); *see also, e.g.*, *Chevron Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 863 (1984) (“Our review of the EPA’s varying interpretations of the word ‘source’—both before and after the 1977 Amendments—convinces us that the agency primarily responsible for administering this important legislation has consistently interpreted it flexibly—not in a sterile textual vacuum, but in the context of implementing policy decisions in a technical and complex arena. The fact that the agency has from time to time changed its interpretation of the term ‘source’ does not, as respondents argue, lead us to conclude that no deference should be accorded the agency’s interpretation of the statute.”). It is true that an agency must “provide a more detailed justification than what would suffice for a new policy created on a blank slate . . . when, for example, its new policy rests upon factual findings that contradict those which underlay its prior policy; or when its prior policy has engendered serious reliance interests that must be taken into account.” *Fox*, 556 U.S. at 515. However, “[i]n such cases it is not that further justification is demanded by the mere fact of policy change; but that a reasoned explanation is needed for disregarding facts and circumstances that underlay or were engendered by the prior policy.” *Id.*

⁵⁶⁷ *Fox*, 556 U.S. at 513 (internal quotation marks omitted).

⁵⁶⁸ *Domestic Sec. Inc. v. SEC*, 333 F.3d 239, 249 (D.C. Cir. 2003) (quoting *Schoenbohm v. FCC*, 204 F.3d 243, 246 (D.C. Cir. 2000), internal quotation marks omitted); *see also, e.g.*, NCTA Comments at 12 (“The Commission need not rely on any ‘changed factual circumstances’ as ‘critical to [the Commission’s] classification decision.’”); USTelecom Comments at 16 (“Case law similarly recognizes that agencies can revise their factual conclusions and, relatedly, that the same agency record can permit a range of factual conclusions.”). As such, we reject arguments that reclassification must be premised on changed factual circumstances or preceded by a significant gap in time. *See, e.g.*, Attorney General of Illinois *et al.* Comments at 12, 17-18; CCIA Comments at 34-36; Cogent Comments at 32; D.C. CTO Comments at 10; NASUCA Comments at 8-10; Parrhesia Project Comments at 1, 7-8; RISE Stronger Comments at 1, 2; Internet Association Reply at 14.

⁵⁶⁹ *National Ass’n of Home Builders v. EPA*, 682 F.3d 1032, 1043 (D.C. Cir. 2012); *see also, e.g.*, Comcast Comments at 50 (“In short, if it was permissible under the APA for the previous Commission to undo nearly two decades of consistent Title I classification decisions and findings on the basis of predictive judgments regarding the policy merits of Title II, it unquestionably remains permissible for the current Commission to reinstate the Title I classification that was in place for nearly two decades and that has already been approved by the Supreme Court.”); AT&T Sept. 27, 2017 *Ex Parte* Letter, Attach. at 2 (“It is also entirely permissible for an agency to reverse course because its new leadership disagrees on broad policy grounds with the controversial agenda of the agency’s prior

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recognized in *Brand X*, “in *Chevron* itself, the Court deferred to an agency interpretation that was a recent reversal of agency policy.”⁵⁷⁰ The *USTelecom* decision supports our understanding of the relevant legal standard, affirming the *Title II Order*’s reclassification of broadband Internet access service irrespective of whether any facts had changed.⁵⁷¹

157. Such a change in course can be justified on a variety of possible grounds. The Supreme Court observed in *Brand X* that “the agency . . . must consider varying interpretations and the wisdom of its policy on a continuing basis, for example in response to . . . a change in administrations.”⁵⁷² In addition, if an agency’s predictions “prove erroneous, the Commission will need to reconsider” the associated regulatory actions “in accordance with its continuing obligation to practice reasoned decision-making.”⁵⁷³ In short, the Commission’s reasoned determination today that classifying broadband Internet access service as an information service is superior both as a matter of textual interpretation and public policy suffices to support the change in direction—even absent any new facts or changes in circumstances. But even assuming such new facts were necessary, the record provides several other sufficient and independent bases for our decision to revisit the classification of broadband Internet access service.

158. For example, we find that the *Title II Order*’s regulatory predictions have not been borne out. Although purporting to adopt a ‘light-touch’ regulatory framework for broadband Internet access

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leadership. . . . In short, nothing in the APA requires the Commission to base its reinstatement of an ‘information service’ classification on any findings of fact that post-date the *Title II Order*.”).

⁵⁷⁰ *Brand X*, 545 U.S. at 981-82.

⁵⁷¹ *USTelecom*, 825 F.3d at 709 (“But we need not decide whether there ‘is really anything new’ because, as the partial dissent acknowledges, the Commission concluded that changed factual circumstances were not critical to its classification decision: ‘[E]ven assuming, *arguendo*, that the facts regarding how [broadband service] is offered had not changed, in now applying the Act’s definitions to these facts, we find that the provision of [broadband service] is best understood as a telecommunications service, as discussed [herein] . . . and disavow our prior interpretations to the extent they held otherwise.’” (citations omitted)).

⁵⁷² *Brand X*, 545 U.S. at 981 (citation and internal quotation marks omitted); *see also, e.g., Nat’l Ass’n of Home Builders*, 682 F.3d at 1043 (“A change in administration brought about by the people casting their votes is a perfectly reasonable basis for an executive agency’s reappraisal of the costs and benefits of its programs and regulations.” (quoting *Motor Vehicle Mfrs. Ass’n. of U.S., Inc. v. State Farm Mut. Automobile Ins. Co.*, 463 U.S. 29, 59 (1983) (Rehnquist, J., concurring in part and dissenting in part), internal quotation marks omitted)); Cox Comments at 7-8 (citing *Brand X*, 545 U.S. at 982); NCTA Comments at 11-12 (same); Verizon Comments at 60 (“The fact that a new administration is in place, with a new take on such questions [of broadband Internet access service policy], is a particularly strong basis for reevaluating the prior Commission’s policies and returning to the historical approach in this area.”).

⁵⁷³ *Aeronautical Radio v. FCC*, 928 F.2d 428, 445 (D.C. Cir. 1991); *see also, e.g., ACA* Comments at 58 (citing *Aeronautical Radio*, 928 F.2d at 445); Verizon Comments at 53 (citing *Chevron*, 467 U.S. at 863-63 and *Am. Family Ass’n v. FCC*, 365 F.3d 1156, 1166 (D.C. Cir. 2004)). In *USTelecom* the D.C. Circuit applied a limited and highly deferential standard of review to the Commission’s predictive judgements, *see, e.g., USTelecom*, 825 F.3d at 707, 710, and thus efforts to distinguish *Aeronautical Radio* based on the limited review conducted by the court there are unavailing. *See, e.g., CCIA* Comments at 33-34 (“[G]iven that the D.C. Circuit admitted that its ‘decision [was] controlled by [a] limited standard of review’ on this particular question, *Aeronautical Radio* should not be read to giving [sic] the Commission the ‘more than ample latitude’ that Commission [sic] claims it does in the *NPRM*.” (footnote omitted)); *CCIA* Reply at 26 (similar). In any case, efforts to narrow the interpretation of precedent cited in the *NPRM* to the cases’ specific facts and circumstances, *see, e.g., CCIA* Comments at 33-37; *CCIA* Reply at 26-27, neglects the broader body of precedent—including the Supreme Court’s decision in *Chevron*—emphasizing an agency’s continuing responsibility to evaluate how prior policy judgments are borne out in practice. *Chevron*, 467 U.S. at 863-64 (“[T]he agency, to engage in informed rulemaking, must consider varying interpretations and the wisdom of its policy on a continuing basis.”); *see also, e.g., Brand X*, 545 U.S. at 981 (quoting *Chevron*, 467 U.S. at 863-64); *Mary V. Harris Found. v. FCC*, 776 F.3d 21, 24 (2015) (same).

service,⁵⁷⁴ this view of the *Title II Order's* action faced skepticism at the time, and we find those concerns confirmed in practice.⁵⁷⁵ For example, the Wireless Telecommunications Bureau initiated inquiries into wireless ISPs' sponsored data and zero-rated offerings, leading to a report casting doubt on the legality of certain types of such offerings.⁵⁷⁶ That report was later retracted.⁵⁷⁷ And the Commission proceeded, in the wake of the reclassification in the *Title II Order*, to adopt complex and highly prescriptive privacy regulations for broadband Internet access service, which ultimately were disapproved by Congress under the Congressional Review Act.⁵⁷⁸ The amorphous and potentially wide-ranging implications of the Title II-based regulatory framework have hindered (or will likely hinder) marketplace innovation,⁵⁷⁹ as the record here indicates and as one logically would expect.⁵⁸⁰ That certain specific steps eventually were rolled back is no cure—rather, those initial actions provide cause for significant concerns that the regulatory framework adopted in the *Title II Order* would be anything but “light-touch” over time. Given the evidence that the Title II-based framework prompted additional regulatory action and was not living up to its “light-touch” label, we disagree with claims that “[t]here has been no material change of circumstance since the adoption of the” *Title II Order*,⁵⁸¹ or that the shortcomings inherent in the Title II approach could be addressed adequately through minor adjustments to the rules adopted in the *Title II Order*.⁵⁸²

159. Further, we are not persuaded that there were reasonable reliance interests in the *Title II Order* that preclude our revisiting the classification of broadband Internet access service.⁵⁸³ Assertions in the record regarding absolute levels of edge investment do not meaningfully attempt to attribute particular

⁵⁷⁴ *Title II Order*, 30 FCC Rcd at 5603-04, para. 5.

⁵⁷⁵ See, e.g., *USTelecom*, 825 F.3d at 754-56 (Williams, J., concurring in part and dissenting in part).

⁵⁷⁶ Wireless Telecommunication Bureau, Policy Review of Mobile Broadband Operators' Sponsored Data Offerings for Zero Rated Content and Services (Jan. 11, 2017), http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0111/DOC-342987A1.pdf.

⁵⁷⁷ *Wireless Telecommunications Bureau Report: Policy Review of Mobile Broadband Operators' Sponsored Data Offerings For Zero Rated Content And Services*, Order, 32 FCC Rcd 1093 (WTB 2017).

⁵⁷⁸ See *Protecting the Privacy of Customers of Broadband and Other Telecommunications Services*, WC Docket No. 16-106, Report and Order, 31 FCC Rcd 13911 (2016); *Protecting the Privacy of Customers of Broadband and Other Telecommunications Services*, Pub. L. No. 115-22, 131 Stat. 88 (enacting S.J. Res. 34, 115th Cong. (2017)).

⁵⁷⁹ See *supra* Part III.C.1.

⁵⁸⁰ See, e.g., Letter from Henry G. Hultquist, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, Attach. at 1 (filed Sept. 27, 2017) (AT&T Sept. 27 *Ex Parte* Letter) (“[I]t is indisputable as a matter of economic theory that any broad scheme of economic regulation imposes costs (which may or may not be outweighed by benefits) on the affected industry. It is also indisputable that these costs are particularly pronounced where, as here, the industry is technologically and commercially dynamic, the regulatory regime imposes broad and unpredictable conduct restrictions, and it generates widespread concerns about regulatory creep. These observations hold true whether or not these regulatory costs—in the form of forgone investment and innovation—can be measured with precision.” (citations omitted)). We thus reject the suggestion that the *Title II Order* yielded “legal and economic certainty.” See Free Press Comments at 4.

⁵⁸¹ ACLU Comments at 21; see also, e.g., Mozilla Comments at 7 (“We have not seen significant evidence of any problems with the 2015 rules.”).

⁵⁸² See, e.g., D.C. CTO Comments at 9.

⁵⁸³ See, e.g., INCOMPAS Reply at 7 (“Moreover, reliance interests also demand heightened scrutiny. Billions of dollars of investment have flowed into investment at the edge in reliance on the existence of the 2015 rules. Those reliance interests must (as explained further below) be respected through maintenance of the 2015 rules.” (footnote omitted)).

portions of that investment to any reliance on the *Title II Order*.⁵⁸⁴ Nor are we persuaded that such reliance would have been reasonable in any event, given the lengthy prior history of information service classification of broadband Internet access service, which we are simply restoring here after the brief period of departure initiated by the *Title II Order*.⁵⁸⁵

160. “[A]n agency literally has no power to act . . . unless and until Congress confers power upon it.”⁵⁸⁶ And so our role is to achieve the outcomes Congress instructs, invoking the authorities that Congress has given us—not to assume that Congress *must* have given us authority to address any problems the Commission identifies. However, rather than looking to Congress to address its statutory authority after the 2010 *Comcast* decision, the Commission instead attempted increasingly-regulatory approaches under existing statutory provisions, culminating in the *Title II Order*’s application of a legal regime that was ill-suited for broadband Internet access service. Returning to the Commission’s historically sound approach to interpreting and applying the Act to broadband Internet access service corrects what we see as shortcomings in how the Commission, in the recent past, conceptualized its role in this context.

161. We also conclude that the Commission should have been cautioned against reclassifying broadband Internet access service as a telecommunications service in 2015 because doing so involved “laying claim to extravagant statutory power over the national economy while at the same time strenuously asserting that the authority claimed would render the statute ‘unrecognizable to the Congress that designed’ it.”⁵⁸⁷ Such interpretations “typically [are] greet[ed] . . . with a measure of skepticism” by courts,⁵⁸⁸ and we believe they should be by the Commission, as well.⁵⁸⁹ As relevant here, the D.C. Circuit in *Verizon* observed that “regulation of broadband Internet providers”—there, rules that required *per se* common carriage—“certainly involves decisions of great ‘economic and political significance.’”⁵⁹⁰ That seems at least as apt a description of the *Title II Order* decision classifying broadband Internet access

⁵⁸⁴ See, e.g., Comcast Comments at 49-50 (“If challengers were to raise this [reliance] argument, it would be *their* burden to establish the reliance interests that the Commission must take into consideration: ‘[T]he extent to which’ the FCC must ‘address reliance will be affected by the thoroughness of [challengers’] public comments,’ and they must present those costs with particular specificity.” (emphasis in original, footnote omitted)); AT&T Sept. 27, 2017 *Ex Parte* Letter, Attach. at 3 (“Although edge providers have indeed invested billions of dollars since 2015, they also invested billions of dollars in the years leading up to 2015, and neither INCOMPAS nor anyone else provides any empirical basis for speculating that edge investment since 2015 would have been substantially lower in the absence of Title II regulation.”).

⁵⁸⁵ See, e.g., Verizon Comments at 52 (“This is not the case of an abrupt agency departure from a long-settled interpretation; rather, this proceeding involves a *restoration* of such an interpretation.”); *id.* at 54 (“[U]nlike the *Title II Order*, which upset decades of settled regulatory analysis, the Commission’s proposal in the *Notice* will not disrupt any meaningful investment-backed expectations.”).

⁵⁸⁶ *La. Pub. Serv. Comm’n v. FCC*, 476 U.S. 355, 374 (1986).

⁵⁸⁷ *Utility Air Regulatory Group*, 134 S.Ct. at 2444 (citation omitted).

⁵⁸⁸ *Id.*

⁵⁸⁹ We rely on these principles to inform what interpretation constitutes the best reading of the Act independent of any broader legal implications that potentially could result from such considerations. Thus, although the separate opinions in the denial of rehearing *en banc* in *USTelecom* debated the application of such principles here—including with respect to issues of agency deference and the permissibility of the Commission’s prior classification—we need not and do not reach such broader issues. Compare, e.g., *U.S. Telecom Ass’n v. FCC*, 855 F.3d at 383-88 (Srinivasan, J., and Tatel, J., concurring) (arguing that *Brand X* dictates that the court reject arguments against agency deference and/or the permissibility of the Commission’s prior interpretation based on the “major questions” or “major rules” doctrine), with, e.g., *id.* at 402-08 (Brown, J., dissenting) (statutory ambiguity was an inadequate basis to “turn[] Internet access into a public utility,” which “is obviously a ‘major question’ of deep economic and political significance”); *id.* at 417-26 (Kavanaugh, J., dissenting) (similar).

⁵⁹⁰ *Verizon*, 740 F.3d at 25 (quoting *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 160 (2000)).

service as a common carrier telecommunications as one adopting rules compelling the service to be offered in a manner that is *per se* common carriage.⁵⁹¹ In particular, the *Title II Order* recognized that classification of broadband Internet access service as a telecommunications service would, absent forbearance, subject the service and its providers to a panoply of duties and requirements ill-suited to broadband Internet access service.⁵⁹² Thus, not only did reclassification involve what we see as a claim of extravagant statutory power, but the Commission found that much of the resulting power was not sensibly applied to broadband Internet access service—a view we believe also would be held by Congress itself.⁵⁹³ Restoring the information service classification that applied for nearly two decades before the *Title II Order* does not require any claim by the Commission of extravagant statutory power over broadband Internet access service and eliminates the anomaly that ill-fitting Title II regulation would apply by default to broadband Internet access service. These considerations thus lend support to our decision to reclassify broadband Internet access service as an information service.

E. Effects on Regulatory Structures Created by the *Title II Order*

162. In this section, we clarify the regulatory effects of today’s reinstatement of broadband Internet access service as a Title I “information service” on other regulatory frameworks affected or imposed by the *Title II Order*, including the effects on: 1) Internet traffic exchange arrangements; 2) the *Title II Order*’s forbearance framework; 3) privacy; 4) wireline broadband infrastructure; 5) wireless broadband infrastructure; 6) universal service; 7) jurisdiction and preemption; and 8) disability access.⁵⁹⁴

1. Ending Title II Regulation of Internet Traffic Exchange

163. The *Title II Order* applied, for the first time, the requirements of Title II to Internet traffic exchange “by an edge provider . . . with the broadband provider’s network.”⁵⁹⁵ We make clear that as a result of our decision to restore the longstanding classification of broadband Internet access service as an information service, Internet traffic exchange arrangements are no longer subject to Title II and its attendant obligations.⁵⁹⁶ We thus return Internet traffic exchange to the longstanding free market framework under which the Internet grew and flourished for decades.

⁵⁹¹ See, e.g., AT&T Comments at 86-87 (discussing the economic and political significance of classifying broadband Internet access service as a telecommunications service); TechFreedom-ALEC Reply at 11 (similar).

⁵⁹² See, e.g., *Title II Order*, 30 FCC Rcd at 5616, 5818, paras. 51, 458.

⁵⁹³ 47 U.S.C. § 230(b)(2) (“It is 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”); see, e.g., ACA Comments at 55-56 (discussing the poor fit of Title II); AT&T Comments at 88-89 (similar); Comcast Comments at 25.

⁵⁹⁴ We do not intend for today’s classification to affect ISPs’ obligations under the Communications Assistance for Law Enforcement Act, the Foreign Intelligence Surveillance Act, or the Electronic Communications Privacy Act. See 47 U.S.C. § 1001-1010; 50 U.S.C. §§ 1801-1813; 18 U.S.C. chs. 119, 121, 206. No commenter identifies any such effect of reclassification, nor does such a change appear to have justified the classification decision in the *Title II Order*.

⁵⁹⁵ *Title II Order*, 30 FCC Rcd at 5686, paras. 195 & n.498, 204. OTI’s argument that Internet traffic exchange was not classified as a Title II service is unpersuasive. The *Title II Order* did not subject Internet traffic exchange to Title II obligations but, as OTI acknowledges, interpreted broadband Internet access services to include Internet traffic exchange between an ISP and an edge provider or its transit provider as “a portion” of the service, or alternatively as used “for and in connection with” that service. In doing so, the *Title II Order* applied certain Title II requirements to these Internet traffic exchange arrangements. See OTI New America Comments at 50-51 (asserting that the *Title II Order* did not classify interconnection as a Title II service, but rather established that interconnection was part of BIAS).

⁵⁹⁶ See *Title II Order*, 30 FCC Rcd at 5686, para. 193 & n. 478 (applying sections 201 (just and reasonable rates, *inter alia*), 202 (prohibition of unreasonable discrimination), 208 (Commission complaint procedures), 222

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164. *Background.* As the *Title II Order* acknowledges, the market for Internet traffic exchange between ISPs and edge providers or their intermediaries “historically has functioned without significant Commission oversight.”⁵⁹⁷ For many years, both ISPs and edge providers largely paid third-party backbone service providers for transit, and backbone providers connected upstream until they reached Tier 1 backbone service providers⁵⁹⁸ which provided access to the full Internet. In recent years, particularly with the rise of online video, edge providers increasingly used CDNs and direct interconnection with ISPs, rather than transit, to increase the quality of their service. At the same time, ISPs have increasingly built or acquired their own backbone services, allowing them to interconnect with other networks without paying for third-party transit services.⁵⁹⁹

165. Notwithstanding these developments, but in line with other aspects of the *Title II Order* seeking to extend the Commission’s regulatory authority, the Commission seized on a handful of anecdotes⁶⁰⁰ to extend utility-style regulation to Internet traffic exchange arrangements. The *Title II Order* applied eight different sections of Title II, including sections 201, 202, and 208, to traffic exchange between ISPs and edge providers or their intermediaries.⁶⁰¹ Although the *Title II Order* did not apply the bright-line rules to Internet traffic exchange, it stated that the Commission would be “available to hear disputes regarding arrangements for the exchange of traffic with a broadband Internet access provider raised under sections 201 and 202 on a case-by-case basis.”⁶⁰² The Commission did not articulate specific criteria that it would apply when hearing such disputes.

166. *Deregulating Internet Traffic Exchange.* Today, we return to the pre-*Title II Order* status quo by classifying broadband Internet access service as an information service, and in doing so, reverse the extension of Title II authority to Internet traffic exchange arrangements.⁶⁰³ There is no dispute that ISPs, backbone transit providers, and large edge providers are sophisticated, well-capitalized businesses.⁶⁰⁴ Indeed, the *Title II Order* acknowledged as much,⁶⁰⁵ and refused to impose “prescriptive

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(privacy), 224 (pole attachments), 225 (services for hearing-impaired individuals), 254 (universal service), and 255 (access by persons with disabilities) of the Act to Internet traffic exchange).

⁵⁹⁷ *Title II Order*, 30 FCC Rcd at 5693, para. 203.

⁵⁹⁸ “Tier 1 backbone service providers . . . peer[] with each other and thereby provide[] their customer networks with access to the full Internet.” *Id.* at 5687, para. 196.

⁵⁹⁹ *See id.* at 5687-90, paras. 196-99. Edge providers are building their own transit networks as well. *See* Tim Stronge, *Optical Illusions: Content Providers and the Impending Transformation of International Transport*, https://pc.nanog.org/static/published/meetings/NANOG71/1434/20171003_Stronge_Optical_Illusions_Content_v1.pdf.

⁶⁰⁰ In particular, the Commission cited the congestion that affected Netflix traffic transported by transit providers Cogent and Level 3 to certain ISP networks. *See Title II Order*, 30 FCC Rcd at 5690-91, para. 200.

⁶⁰¹ *Id.* at 5686, para. 193 & n.478. We reject the argument that this application of Title II, which includes potential Commission mandates “to establish physical connections with other carriers, to establish through routes and charges applicable thereto and the divisions of such charges, and to establish and provide facilities and regulations for operating such through routes,” was light-touch, measured regulation. 47 U.S.C. § 201(a); *cf.* OTI New America Comments at 50-51 (“The jurisdiction established by the 2015 *Order* was narrow and limited. . . . [I]t is arguably the lightest possible touch the Commission could have made. It is also far less than what OTI asked the Commission to establish”); Internet Association Comments at 24.

⁶⁰² *Title II Order*, 30 FCC Rcd at 5686, para. 193.

⁶⁰³ As was the case before the *Title II Order*, we retain subject-matter jurisdiction over Internet traffic exchange under Title I, to the extent such exchange arrangements are “wire” or “radio communications.” 47 U.S.C. § 151; *see* CenturyLink Comments at 62; Cogent Comments at 20-22; Cogent Reply at 9.

⁶⁰⁴ *See* Cox Comments at 34; Comcast Reply at 35.

⁶⁰⁵ *Title II Order*, 30 FCC Rcd at 5694, para. 205.

rules” or even “draw policy conclusions concerning new paid Internet traffic arrangements.”⁶⁰⁶ Notwithstanding, the *Title II Order* cast a shadow on new arrangements in this sector by applying a range of common carrier requirements to Internet traffic exchange.

167. We believe that applying Title II to Internet traffic exchange arrangements was unnecessary and is likely to inhibit competition and innovation. We find that freeing Internet traffic exchange arrangements from burdensome government regulation, and allowing market forces to discipline this emerging market is the better course.⁶⁰⁷ Indeed, the cost of Internet transit fell over 99 percent on a cost-per-megabit basis from 2005 to 2015.⁶⁰⁸

168. We welcome the growth of alternative Internet traffic exchange arrangements, including direct interconnection, CDNs, and other innovative efforts. All parties appear to agree that direct interconnection has benefited consumers by reducing congestion, increasing speeds, and housing content closer to consumers, and allowed ISPs to better manage their networks.⁶⁰⁹ CDNs play a similar role.⁶¹⁰ We believe that market dynamics, not Title II regulation, allowed these diverse arrangements to thrive.⁶¹¹ Our decision to reclassify broadband Internet access service as an information service, and to remove Title II utility-style regulation from Internet traffic exchange, will spur further innovation in this market.⁶¹² Returning to the pre-*Title II Order* light-touch framework will also eliminate the asymmetrical regulatory treatment of parties to Internet traffic exchange arrangements.⁶¹³ As NTCA explains, the *Title II Order* imposed a one-sided interconnection duty upon last-mile ISPs—even though, especially in rural

⁶⁰⁶ *Id.* at 5692, para. 202.

⁶⁰⁷ Because we conclude that this is the wiser course, we reject comments asserting that a dispute resolution process is needed. *See, e.g.*, OTI New America Comments at 52.

⁶⁰⁸ Comcast Comments Appendix A (citing DrPeering International, *What Are The Historical Pricing Trends*, <http://drpeering.net/FAQ/What-are-the-historical-transit-pricing-trends.php>). *See* Cox Comments at 34-35; AT&T Comments at 48-49; Comcast Comments at 73-76. *But see* OTI New America Reply at 41 (not disputing that transit prices have fallen, but arguing “this premise is flawed. The guiding measure of the interconnection market’s health should be the consumer experience, not transit pricing”).

⁶⁰⁹ OTI New America Comments at 5; M-Lab Comments at 5; NYAG Comments at 8; AT&T Reply at n.11.

⁶¹⁰ *See* AT&T Comments at 47; Akamai Comments at 10-11; Netflix Reply at 5 (“By storing content closer to end users, Open Connect and other CDNs free capacity on other parts of the network, which improves delivery for all types of internet content, not just data stored by those CDNs.”).

⁶¹¹ *See* AT&T Reply at 43-44 (explaining that “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” and asserting that “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*.”); Comcast Reply at 37 (“In the case of Netflix, the congestion issues were remedied because Netflix ultimately concluded that reaching a direct interconnection agreement with Comcast would better meet its needs. This agreement was plainly reasonable and mutually beneficial.”).

⁶¹² *See* Ericsson Comments at 9-10; ITI Comments at 8-9; Verizon Reply at 25-26; NCTA Reply at 36; AT&T Reply at 45.

⁶¹³ *See* Cox Comments at 34-35 (“If anything, for providers like Cox, large edge providers that exercise substantial control over their network traffic (and transit providers that carry such traffic) have the upper hand in negotiating traffic-exchange arrangements, illustrating the problems with a one-sided regulatory regime applicable only to BIAS providers.”); AT&T Comments at 48-49; AT&T Reply at 45; Verizon Reply at 25-26; Comcast Reply at 37-38; NCTA Reply at 36. *But see* Cogent Reply at 8 (asserting that because ISPs “control the sole path between any transit provider and the end-user customers, transit providers . . . have neither the opportunity nor ability to engage in the type of discriminatory behavior that has enabled some [ISPs] to extract payments directly from content providers”); OTI New America Reply at 48. We reject these arguments for the reasons discussed above.

areas, “many ISPs are a tiny fraction of the size of upstream middle mile and transit networks or content and edge providers.”⁶¹⁴ The record reflects that the asymmetric regulation reduced incentives to share costs, and we anticipate that eliminating one-sided regulation of Internet traffic exchange and restoring regulatory parity among sophisticated commercial entities will allow the parties to more efficiently allocate the costs arising from increased demands on the network.⁶¹⁵

169. We note that after Title II regulation has been lifted from Internet traffic exchange, several factors will constrain any anti-competitive actions of ISPs.⁶¹⁶ If an ISP were found to possess market power, the antitrust laws provide antitrust agencies with all the necessary tools needed to preserve and protect competition.⁶¹⁷ In addition, the backstop of generally-applicable consumer protection laws continues to protect consumers and edge providers.⁶¹⁸ These laws, particularly antitrust laws which prevent certain refusals to deal,⁶¹⁹ will also protect small, rural ISPs which may face difficulties interconnecting with edge providers, transit providers, and larger ISPs.⁶²⁰ Furthermore, major edge providers, including Netflix, YouTube, and other large OVDs, are some of the “most-loved” brands in the world.⁶²¹ Their reputations and the importance of reputation to their business and brand gives them significant incentive to inform consumers and work to shape consumer perceptions in the event of any dispute with ISPs. This incentive mitigates potential concerns that consumers lack the knowledge and ability to hold their ISPs accountable for interconnection disputes.⁶²² Accordingly, assertions that public-utility regulation of Internet traffic exchange arrangements is necessary to allow consumers to reach content of their choice are unpersuasive.⁶²³

⁶¹⁴ NTCA Comments at 8.

⁶¹⁵ See Frontier Comments at 10 (“[T]he real issue is that the few largest edge providers have sought to avoid paying anything for the infrastructure upgrades required to accommodate their traffic In practice, these rules gave edge providers a green light to continue to drive greater and greater network traffic at no costs, resulting in a direct drain on infrastructure investment in areas where it is needed most, including in rural areas.”).

⁶¹⁶ Some commenters have called for continued *ex post* regulation of Internet traffic exchange between ISPs and transit or edge providers, potentially under Title I, see Cogent Reply at 1; NTCA Comments at 12; WTA Comments at 2, or disclosure requirements, see OTI New America Comments at 55; Cogent Comments at 25-26. For the reasons discussed here, we reject these arguments.

⁶¹⁷ See *supra* Part III.C.3. We reject the argument that the Commission’s decision in the *Charter-Time Warner Cable Merger Order* compels us to apply Title II regulation to interconnection (see INCOMPAS Comments at 58, 61-62; Internet Association Comments at 24-25) for the reasons discussed herein, *infra* Part VI.A.

⁶¹⁸ Cox Comments at 34-35.

⁶¹⁹ See *supra* Part III.C.3.

⁶²⁰ See NTCA Comments at 12 (“[A] regulatory backstop remains essential to ensure proper incentives to interconnect and exchange data, along with some capability for the regulator to step in if needed to correct for unreasonable and/or discriminatory behavior”); WTA Comments at 2, 5; NTCA Reply at 6-7.

⁶²¹ Netflix, Apple, Google, Microsoft, YouTube Are Most-Loved Brands, Reveals The Love Index 2016 From Accenture Interactive (Nov. 2, 2016), <https://newsroom.accenture.com/news/netflix-apple-google-microsoft-youtube-are-most-loved-brands-reveals-the-love-index-2016-from-accenture-interactive.htm>.

⁶²² AT&T Reply at 39, n.62 (stating that “leading edge providers such as Netflix and Google have their own consumer relationships and vigorously promote various ‘scorecards’ that compare ISP performance”); see also Netflix, *ISP Speed Index*, <https://ispspeedindex.netflix.com>; Google, *Video Quality Report* <https://www.google.com/get/videoqualityreport/>. But see INCOMPAS Comments at 22; Cogent Comments at 14; OTI New America Reply at 43 (“[C]onsumers lack the knowledge and ability to hold their BIAS provider accountable for interconnection disputes, which typically occur under a veil of secrecy.”).

⁶²³ See, e.g., Amazon Comments at 7; Microsoft Comments at 21-22; OTI New America Comments at 53-54; INCOMPAS Comments at 58-59; OTI New America Comments at 52-54; INCOMPAS Comments at 58-59; NYAG Comments at 6-7; INCOMPAS Reply at 21-22; Level 3 Reply at 3.

2. Forbearance

170. As we have reinstated the information service classification of broadband Internet access service, the forbearance granted in the *Title II Order* is now moot.⁶²⁴ We return to the pre-*Title II Order* status quo and allow providers voluntarily electing to offer broadband transmission on a common carrier basis to do so under the frameworks established in the *Wireline Broadband Classification Order* and the *Wireless Broadband Internet Access Order*.⁶²⁵ We also clarify that carriers are no longer permitted to use the *Title II Order* forbearance framework (i.e., no carrier will be permitted to maintain, or newly elect, the *Title II Order* forbearance framework).

171. Prior to the *Title II Order*, some facilities-based wireline carriers chose to offer broadband transmission services on a common carrier basis subject to the full range of Title II requirements.⁶²⁶ In the 2005 *Wireline Broadband Classification Order*, the Commission ruled that broadband Internet access was an information service, but at the same time permitted facilities-based wireline carriers to voluntarily elect to offer the transmission component of broadband Internet access service (often referred to as digital subscriber line or DSL) on a common carrier basis.⁶²⁷ Operators choosing to offer broadband transmission on a common carriage basis could do so under tariff or could use non-tariff arrangements.⁶²⁸ The Commission permitted facilities-based carriers to choose whether to offer wireline broadband Internet access transmission as non-common carriage or common carriage to “enable facilities-based wireline Internet access providers to maximize their ability to deploy broadband Internet access services and facilities in competition with other platform providers, under a regulatory framework that provides all market participants with the flexibility to determine how best to structure their business operations.”⁶²⁹ Generally, ISPs that chose to elect common carrier status were smaller carriers that served “rural, sparsely-populated areas” and obtained significant benefits from the provision of broadband transmission services on a common carriage basis, including the ability to participate in common tariff arrangements via the NECA pools and the availability of high-cost universal service support.⁶³⁰

172. We agree with NTCA and NECA that the broadband transmission services currently offered by rural LECs under tariff differ substantially from the broadband Internet access services at issue in this proceeding, and as such are not impacted by our decision to reclassify broadband Internet access service as an information service.⁶³¹ The term “wireline broadband Internet access service” refers to “a mass-market retail service by wire that provides the capability to transmit data to and receive data from all or substantially all Internet endpoints, including any capabilities that are incidental to and enable the

⁶²⁴ See CenturyLink Comments at 31-32; *Internet Freedom NPRM*, 32 FCC Rcd at 4456, para. 64.

⁶²⁵ See *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities et al.*, CC Docket Nos. 02-33, 01-337, 95-20, 98-10, WC Docket Nos. 04-242, 05-271, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853 (2005) (*Wireline Broadband Classification Order*), *aff'd Time Warner Telecom, Inc. v. FCC*, 507 F.3d 205 (3d Cir. 2007); see also *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5913-14, 32-34.

⁶²⁶ *Title II Order*, 30 FCC Rcd at 5819, para. 460 & n.1376. We also note that the Commission allowed for wireless broadband Internet access service providers to elect to offer the transmission component as a telecommunications service. *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5913-14, 32.

⁶²⁷ *Wireline Broadband Classification Order*, 20 FCC Rcd at 14955, para. 1, 14902, para. 94. See also *id.* at 14927, para. 138 (noting that all rate-of-return carriers that participated in the proceeding stated they wish to continue offering broadband transmission as a Title II common carrier service).

⁶²⁸ *Id.* at 14899-903, paras. 87-95.

⁶²⁹ *Id.* at 14902, para. 94.

⁶³⁰ See NECA Comments at 5; WTA Comments at 9.

⁶³¹ NECA Comments at 5; NTCA Comments at 19.

operation of the communications service, but excluding dial-up Internet access service.”⁶³² Broadband transmission services do not provide end users with direct connectivity to the Internet backbone or content, but instead enable data traffic generated by end users to be transported to an ISP’s Access Service Connection Point over rural LEC local exchange service facilities for subsequent interconnection with the internet backbone.⁶³³

173. Carriers offering broadband transmission service have never been subject to the *Title II Order* forbearance framework.⁶³⁴ The *Title II Order* forbearance framework with respect to broadband Internet access service did not encompass broadband transmission services and permitted carriers to voluntarily elect to offer transmission services on a common carriage basis pursuant to the *Wireline Broadband Classification Order*.⁶³⁵ The *Title II Order* made clear that broadband transmission services would continue to be subject to the full panoply of Title II obligations (e.g., USF contributions), including those from which the Commission forbore from in the *Title II Order*.⁶³⁶ Thus, only carriers that elected to cease offering broadband transmission services and instead offer broadband Internet access services (including a transmission service component) were subject to the *Title II Order* forbearance framework (e.g., forbearance from USF contributions applied to such carriers).⁶³⁷

174. Today, we return to the pre-*Title II Order* status quo and allow carriers to elect to offer broadband transmission services on a common carrier basis, either pursuant to tariff or on a non-tariffed basis.⁶³⁸ We find the reasoning in the *Wireline Broadband Classification Order* for offering these options persuasive.⁶³⁹ Irrespective of the regulatory classification of broadband Internet access services, the Commission has continuously permitted facilities-based wireline carriers to provide broadband Internet transmission services on a Title II common carriage basis, with substantial flexibility in deciding how such services may be offered (i.e., on a tariffed or non-tariffed basis).⁶⁴⁰ Providing these options offers small carriers much-needed regulatory certainty as they have sought to deploy and maintain broadband Internet access services to their customers.⁶⁴¹ We reiterate that broadband transmission services are not impacted by our decision to reclassify broadband Internet access service as an information service.⁶⁴²

175. We clarify that carriers that choose to offer transmission service on a common carriage basis are, as under the *Wireline Broadband Classification Order*, subject to the full set of Title II obligations, to the extent they applied before the *Title II Order*.⁶⁴³ Further, we clarify that those carriers

⁶³² *Connect America Fund, et al.*, 31 FCC Rcd 3087, 3158 & n.421 (2016) (*Rate of Return USF Reform Order*).

⁶³³ NECA Comments at 5 & n.16.

⁶³⁴ *Title II Order*, 30 FCC Rcd at 5819, para. 460.

⁶³⁵ *Id.*

⁶³⁶ *Title II Order*, 30 FCC Rcd at 5819, para. 460 & n.1377.

⁶³⁷ *Internet Freedom NPRM*, 32 FCC Rcd at 4456, para. 65; *Title II Order*, 30 FCC Rcd at 5819, para. 460 & n.1378. Over one hundred providers opted-into the *Title II Order* forbearance framework and in their letters to the Commission, they noted that the transmission component would only be provided as part of the complete broadband Internet access service. See Protecting and Promoting the Open Internet, GN Docket No. 14-28.

⁶³⁸ See, e.g., Interisle Comments at 16-17; NECA Comments at 2-6; NTCA Comments at 17-19; WTA Comments at 8-10 (all advocating to retain the ability to voluntarily elect to provide service as a common carrier). See also Data Foundry Reply at 7.

⁶³⁹ *Wireline Broadband Classification Order*, 20 FCC Rcd at 14955, para. 1, 14899-903, paras. 87-95.

⁶⁴⁰ NECA Comments at 4-5.

⁶⁴¹ See, e.g., NECA Comments at 5; NTCA Comments at 19; WTA Comments at 9.

⁶⁴² *Supra* para. 173.

⁶⁴³ Similarly, a wireless broadband Internet access provider may choose to offer the transmission component as a telecommunications service and the transmission component of wireless broadband Internet access service as a

(continued....)

that had previously been offering a broadband transmission service (subject to the full panoply of Title II regulations) and that elected to instead offer broadband Internet access service after the *Title II Order* now will be deemed to be offering an information service. The Commission has never allowed carriers offering broadband transmission services on a common carrier basis to opt in to the *Title II Order* forbearance framework for those transmission services. Carriers that prefer light-touch regulation may elect to offer broadband Internet access service as an information service. Although WTA argues that allowing rural LECs to opt into the forbearance framework will “enable a much more level competitive playing field in the retail marketplace,”⁶⁴⁴ no other carriers are subject to that framework, and we find that allowing carriers to opt into the forbearance framework will result in a regulatory disparity. We therefore reject WTA’s argument that the Commission should continue to permit opting into the *Title II Order* forbearance.⁶⁴⁵ To the extent that other related issues are raised in the record, we find that those issues are better addressed in the appropriate proceeding.⁶⁴⁶

176. We also reject AT&T’s assertion that the Commission should conditionally forbear from all Title II regulations as a preventive measure to address the contingency that a future Commission might seek to reinstate the *Title II Order*.⁶⁴⁷ Although AT&T explains that “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,”⁶⁴⁸ we see no need to address the complicated question of prophylactic forbearance and find such extraordinary measures unnecessary.

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telecommunications service only if the entity that provides the transmission voluntarily undertakes to provide it indifferently on a common carrier basis. Such an offering is a common carrier service subject to Title II. *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5913-14, 32-33. In addition, a wireless broadband Internet access provider that chooses to offer the telecommunications transmission component as a telecommunications service may also be subject to the “commercial mobile service” provisions of the Act. *See Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5913-14, 33 and 40; and H.R. Conf. Report 104-458 (noting that the definition of “telecommunications service” was intended to include commercial mobile service).

⁶⁴⁴ WTA Comments at 9-10.

⁶⁴⁵ *See, e.g.*, WTA Comments at 8-10.

⁶⁴⁶ On June 14, 2017, NTCA and the United States Telecom Association filed a petition seeking temporary forbearance from USF contribution obligations imposed on broadband internet transmission services provided by RLECs on a common carriage basis, pending completion of comprehensive USF contribution reform by the Commission. *Petition of NTCA-The Rural Broadband Association and the United States Telecom Association for Targeted, Temporary Forbearance Pursuant to 47 U.S.C. §160(c) from Application of Contributions Obligations on Broadband Internet Access Transmission Services Pending Universal Service Fund Comprehensive Contributions Reform*, Docket No. 06-122 (filed June 14, 2017). *See* NTCA Comments at 19; NECA Comments at 6 & n.17 (both asserting that temporary forbearance from USF contribution obligations is warranted). NTCA notes that as that petition explains, “while providing RLECs with the voluntary ability to tariff broadband transmission is an important mechanical component of universal service, the maintenance of USF contribution obligations for the select class of providers that offers broadband in this manner is disparate and anti-consumer.” NTCA Comments at 19.

⁶⁴⁷ AT&T Comments at 99-100; *see also* CenturyLink Comments at 31 (asserting the Commission should “maintain and extend” the *Title II Order* forbearance framework).

⁶⁴⁸ AT&T Reply at 56; *but cf.* Free Press Comments at 12-13 (suggesting without elaboration that “Section 10 forbearance is predicated on the preservation of the nondiscriminatory outcomes secured by Sections 201 and 202”); NASUCA Reply at 12 (arguing AT&T’s proposal should be rejected as forbearance is “intended to allow for flexibility in the application of specific regulations or elements of a statute, not for use as a path to circumvent present or future consideration of what should be the proper statutory classification of a service”).

3. Returning Broadband Privacy Authority to the FTC

177. By reinstating the information service classification of broadband Internet access service, we return jurisdiction to regulate broadband privacy and data security to the Federal Trade Commission (FTC),⁶⁴⁹ the nation's premier consumer protection agency and the agency primarily responsible for these matters in the past.⁶⁵⁰ Restoring FTC jurisdiction over ISPs will enable the FTC to apply its extensive privacy and data security expertise to provide the uniform online privacy protections that consumers expect and deserve.⁶⁵¹

178. Historically, the FTC protected the privacy of broadband consumers, policing every online company's privacy practices consistently and initiating numerous enforcement actions.⁶⁵² In fact, the FTC has "brought over 500 enforcement actions protecting the privacy and security of consumer information, including actions against ISPs and against some of the biggest companies in the Internet ecosystem."⁶⁵³ When the Commission reclassified broadband Internet access service as a common carriage telecommunications service in 2015, however, that action stripped FTC authority over ISPs because the FTC is prohibited from regulating common carriers.⁶⁵⁴ The effect of this decision was to shift responsibility for regulating broadband privacy to the Commission.⁶⁵⁵ And in lieu of an even playing field, the Commission adopted sector-specific rules that deviated from the FTC's longstanding

⁶⁴⁹ Because federal law prohibits the FTC from regulating common carriers, the *Title II Order* divested the FTC of its authority to regulate ISPs' privacy practices. See 15 U.S.C. § 45(a)(1). See also *Internet Freedom NPRM*, 32 FCC Rcd at 4457, para. 67.

⁶⁵⁰ See *Internet Freedom NPRM*, 32 FCC Rcd at 4456, para. 66. Numerous commenters support restoring the FTC's authority to enforce privacy and data security throughout the Internet ecosystem. See, e.g., ACT Comments at 6-8; Citizens Against Government Waste Comments at 4; Acting Chairman Ohlhausen Comments at 1-2, 8; Cox Comments at 23; HTTP Comments at 2; Interisle Comments at 17; U.S. Chamber of Commerce Comments at 9; Verizon Comments at 23; WISPA Comments at 29 ("Not only does the FTC have far more enforcement experience regarding Internet consumer privacy and data security, but the FCC and FTC have acknowledged that the FTC's authority under Section 5 of the FTC Act is comparable to the FCC's authority under Title II's Section 201(b)."); ADTRAN Reply at 12; AT&T Reply at 19; CALinnovates Reply at 12; Christopher Yoo Reply at 31-32; Cox Reply at 15; Comcast Reply at 26, n.100; Free State Foundation Comments at 40; HTTP Reply at 2; ITIF Reply at 15; NCTA Reply at 30-31; TechFreedom Reply at 93-94; Verizon Reply at 18-20; Letter from Randolph J. May, President, Free State Foundation, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, at 1-2, Attach. A at 5-9 (filed Oct. 23, 2017).

⁶⁵¹ FTC Staff Comments at 3-21.

⁶⁵² See 15 U.S.C. § 45(a)(1); *Protecting the Privacy of Customers of Broadband and Other Telecommunications Services*, Report and Order, 31 FCC Rcd 13911, 13945, para. 87 (2016) (*2016 Privacy Order*); *Internet Freedom NPRM*, 32 FCC Rcd at 4456, para. 66; see also FTC Staff Comments at 3-12 ("The FTC has extensive privacy and data security experience, including the enforcement of privacy and security of consumer data laws for consumer protection, policy initiatives to promote privacy and data security in all sectors of the economy, and business and consumer education on the subject."); Comcast Comments at 65; Acting Chairman Ohlhausen Comments at 1-2, 8; Cox Comments at 23; Technology Policy Institute (Leonard & Wallsten) Comments at 11; Verizon Comments at 23-24; WISPA Comments at 28-29.

⁶⁵³ Comments of Comm'r Ohlhausen, WC Docket No. 16-106, at 1-2 (filed May 27, 2016); see also *2016 Privacy Order*, 31 FCC Rcd at 13945, para. 87; FTC Staff Comments at 4 (asserting the FTC has prosecuted hundreds of cases to protect the privacy and security of consumer information).

⁶⁵⁴ See 15 U.S.C. §§ 44, 45(a)(2); 47 U.S.C. § 153(51). But see *FTC v. AT&T Mobility LLC*, 835 F.3d 993 (9th Cir. 2016), *reh'g en banc granted*, No. 15-16585, 2017 WL 1856836 (9th Cir. May 9, 2017).

⁶⁵⁵ The *Title II Order* called for a new rulemaking to apply Section 222's customer proprietary network information provisions to Internet service providers. *Title II Order*, 30 FCC Rcd at 5820, para. 462.

framework.⁶⁵⁶ In March 2017, Congress voted under the Congressional Review Act (CRA) to disapprove the Commission's 2016 *Privacy Order*, which prevents us from adopting rules in substantially the same form.⁶⁵⁷

179. Undoing Title II reclassification restores jurisdiction to the agency with the most experience and expertise in privacy and data security, better reflects congressional intent, and creates a level playing field when it comes to Internet privacy.⁶⁵⁸ Restoring FTC authority to regulate broadband privacy and data security also fills the consumer protection gap created by the *Title II Order* when it stripped the FTC of jurisdiction over ISPs.⁶⁵⁹ Consumers expect information to be “treated consistently across the Internet ecosystem and that their personal information will be subject to the same framework, in all contexts.”⁶⁶⁰ Under the FTC's technology neutral approach to privacy regulation,⁶⁶¹ consumers will have the consistent level of protection across the Internet ecosystem that they expect.⁶⁶² The FTC's “flexible, enforcement-focused approach has enabled the agency to apply strong consumer privacy and security protections across a wide range of changing technologies and business models, without imposing unnecessary or undue burdens on industry.”⁶⁶³ Moreover, the flexibility of the FTC's enforcement framework “allows room for new business models that could support expensive, next-generation networks with revenue other than consumers' monthly bills.”⁶⁶⁴ The FTC has already “delivered the message to entities in a range of fields—retailers, app developers, data brokers, health companies, financial institutions, third-party service providers, and others—that they need to provide consumers with strong privacy and data security protections.”⁶⁶⁵ The same approach should apply to ISPs.⁶⁶⁶ And only

⁶⁵⁶ 2016 *Privacy Order*, 31 FCC Rcd at 14051, para. 334; *see also* ITIF Comments at 16 (arguing the “FCC's prior privacy rulemaking set a poor precedent for privacy rules touching other sectors of the economy, undermined the U.S. position when negotiating privacy issues abroad, dramatically deviated from the usual consensus-driven multistakeholder model of developing Internet rules, and unnecessarily expanded the scope of utility-style regulation of broadband.”).

⁶⁵⁷ *See* Pub. L. No. 115-22 (Apr. 3, 2017); *see also* 5 U.S.C. § 801(b)(2)).

⁶⁵⁸ Comcast Comments at 42-43; *see also* Cox Comments at 23; Verizon Comments at 23.

⁶⁵⁹ Acting Chairman Ohlhausen Comments at 8; *see also* CompTIA Comments at 5. *But see* EPIC Reply at 4-6.

⁶⁶⁰ Verizon Comments at 23-24; *see also* CACW Comments at 4; CompTIA Comments at 5-6; HTTP Comments at 2.

⁶⁶¹ *See* ACA Comments at 70; Cox Comments at 24; CompTIA Comments at 6; FTC Staff Comments at 20-21. *But see* Public Knowledge Reply at 39-42 (arguing the nature of broadband networks is why the FCC is better equipped to retain jurisdiction over broadband privacy); Public Knowledge et al. August 30, 2017 Letter at 6-7.

⁶⁶² *See* ADTRAN Comments at 28; Comcast Comments at 66; Cox Comments at 6, 24; FTC Staff Comments at 3-12, 18-19; ITIF Comments at 15-16; League of United Latin American Citizens Comments at 2; National Multicultural Organizations Comments at 5; Verizon Comments at 24; Verizon Reply at 18. *But see* Public Knowledge et al. August 30, 2017 Letter at 3-5 (asserting the Commission has found broadband networks have a unique position in the Internet ecosystem). With over 100 years of experience, only the FTC can apply consumer protection rules consistently across industries. *See* Acting Chairman Ohlhausen Comments at 8; Verizon Comments at 23-24.

⁶⁶³ FTC Staff Comments at 20-21. *See also* Verizon Comments at 24 (“New technology-driven issues like robocalling and mobile payments, in addition to data privacy for non-common carriers, now are within the FTC's docket, and the FTC has ably dealt with them.”). As NTCA contends, the FTC has not only the legal jurisdiction, but also the subject matter expertise. NTCA Reply at 14. In 2007, the FTC issued a 167-page report that delved into both the technical and legal bases of the internet and how the law approaches it. Comm'r Ohlhausen Comments at 2-3. Moreover, the FTC has been involved in numerous initiatives that address consumer protection in the broadband marketplace. FTC Staff Comments at 7-10.

⁶⁶⁴ ITIF Comments at 16. *But cf.* Public Knowledge Reply at 41-42.

⁶⁶⁵ FTC Staff Comments at 21.

the FTC operates on a national level across industries, which is especially important when regulating providers that operate across state lines.⁶⁶⁷ In light of the FTC's decades of successful experience, including its oversight of ISP privacy practices prior to 2015,⁶⁶⁸ we find arguments that we should decline to reclassify to retain sector-specific control of ISP privacy practices unpersuasive.⁶⁶⁹ Furthermore, the uncertainty related to the Commission's current authority over broadband privacy regulation created by the CRA resolution of disapproval also weighs in favor of returning jurisdiction to the FTC.

180. We also reject arguments that rely on the Ninth Circuit panel decision holding that the common carrier exemption precludes FTC oversight of non-common carriage activities of common carriers.⁶⁷⁰ Consistent with the Commission's request, the Ninth Circuit granted rehearing *en banc* of the panel decision, and in doing so it set aside the earlier panel opinion.⁶⁷¹ In light of these considerations

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⁶⁶⁶ *Id.*

⁶⁶⁷ Verizon Comments at 24; *see also* FTC Staff Comments at 20 (noting that another benefit of returning the FTC's jurisdiction to BIAS companies is that it will expand the number of companies eligible to sign up for the EU-U.S. Privacy Shield Framework).

⁶⁶⁸ The FTC has previously brought enforcement actions against ISPs regarding Internet access and related issues. *See* Broadband Connectivity Competition Policy: FTC Staff Report, 39-40 (2007), <https://www.ftc.gov/sites/default/files/documents/reports/broadband-connectivity-competition-policy/v070000report.pdf>; *see also* *FTC v. Pricewert LLC*, 2010 WL 329913 at *1 (N.D. CA 2010) (enforcement action against "a rogue service provider that recruits, hosts and participates in the distribution of illegal, malicious, and harmful electronic content"); *FTC v. Cyberspace.com LLC*, 453 F.3d 1196, 1199-1201 (9th Cir. 2006) (action against an Internet service provider that issued checks stating in the fine print on the back, that if cashed or deposited, those actions constituted an "agreement to pay a monthly fee for internet access"); *FTC v. Verity Intern, Ltd.*, 124 F. Supp. 2d 193, 195-96 (S.D.N.Y. 2000) (action against an ISP that disconnected consumers seeking adult entertainment online from their regular ISPs and reconnected them to a Madagascar phone number where they were charged per minute). The FTC has also "brought enforcement actions in matters involving access to content via broadband and other Internet access services," such as the FTC's challenge to the proposed AOL and Time Warner merger, in part, over concern for potential harm to consumers' broadband Internet access. Broadband Connectivity Competition Policy: FTC Staff Report, 39 (2007), <https://www.ftc.gov/sites/default/files/documents/reports/broadband-connectivity-competition-policy/v070000report.pdf>.

⁶⁶⁹ *See, e.g.*, ADT Comments at 7-8; Cause of Action Comments at 1, 4; Comm'r McSweeney Comments at 3-4, 7; CPUC Comments at 22-24; EPIC Comments at 3-8; Free Press Comments at 73; National Consumers League Comments at 2, 10-12; Public Knowledge Comments at 89-95; Sen. Pallone et al. Comments at 8-9; Voices Coalition Comments at 62-65; Asian Americans Advancing Justice Reply at 2; CCIA Reply at 18-19; EPIC Reply 2-4; League of Latin American Citizens Reply at 2-3; OTI New America Reply at 34-36. Some commenters object that the FTC is not suited to protect privacy on the Internet, citing the FTC's narrower authority and fewer resources than the Commission and the absence of specific statutory directive from Congress to the FTC to regulate privacy. *See* CDT Comments at 14; EFF Comments at 26-27; Free Press Comments at 73; Public Knowledge Comments at 93-94; EPIC Reply at 3; National Consumers League Reply at 6-7; OTI New America Reply at 34-36; Public Knowledge Reply at 38-42; Public Knowledge et al. August 30, 2017 Letter at 5-8. As discussed above, these criticisms are unfounded.

⁶⁷⁰ *See* *FTC v. AT&T Mobility LLC*, 835 F.3d 993 (9th Cir. 2016), *reh'g en banc granted*, No. 15-16585, 2017 WL 1856836 (9th Cir. May 9, 2017). As the FCC's amicus letter explained in that case, the panel decision erred by overlooking the textual relationship between the statutes governing the FTC's and FCC's jurisdiction. *See* Letter Pursuant to Fed R. App. P. 28(j) of amicus FCC, *FTC v. AT&T Mobility LLC*, No. 15-16585 (9th Cir. Apr. 21, 2017).

⁶⁷¹ *See* Order, *FTC v. AT&T Mobility, LLC*, No. 15-16585 (9th Cir. May 9, 2017) ("The three-judge panel disposition in this case shall not be cited as precedent by or to any court of the Ninth Circuit."). This *en banc* order means that the *Title II Order*'s reclassification of broadband Internet access service serves as the only current limit on the authority of the FTC to oversee the conduct of Internet service providers. *See* Verizon Comments at 23; *see also* ADTRAN Comments at 29 (asserting that if the decision is not altered by *en banc* review, "the Commission

(continued....)

and the benefits of reclassification, we find objections based on *FTC v. AT&T Mobility* insufficient to warrant a different outcome.

4. Wireline Infrastructure

181. To the extent today's classification decision impacts the deployment of wireline infrastructure, we will address that topic in detail in proceedings specific to those issues.⁶⁷² The importance of facilitating broadband infrastructure deployment indicates that our authority to address barriers to infrastructure deployment warrants careful review in the appropriate proceedings.⁶⁷³ We disagree with commenters who assert that Title II classification is necessary to maintain our authority to promote infrastructure investment and broadband deployment.⁶⁷⁴ Because the same networks are often used to provide broadband and either telecommunications or cable service, we will take further action as is necessary to promote broadband deployment and infrastructure investment.⁶⁷⁵ Further, Title I classification of broadband Internet access services is consistent with the Commission's broadband deployment objectives, whereas the Title II regulatory environment undermines the very private investment and buildout of broadband networks the Commission seeks to encourage.⁶⁷⁶ Additionally, in the twenty states and the District of Columbia that have reverse-preempted Commission jurisdiction over pole attachments, those states rather than the Commission are empowered to regulate the pole attachment process.⁶⁷⁷

182. We are resolute that today's decision not be misinterpreted or used as an excuse to create barriers to infrastructure investment and broadband deployment. For example, we caution pole owners not to use this *Order* as a pretext to increase pole attachment rates or to inhibit broadband providers from

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should resolve the problem by deciding to adopt the same privacy requirements as the FTC so that there would be uniform privacy obligations throughout the Internet ecosystem").

⁶⁷² See *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, Notice of Proposed Rulemaking, Notice of Inquiry, and Request for Comment, 32 FCC Rcd 3266 (2017); *Improving Competitive Broadband Access to Multiple Tenant Environments*, Notice of Inquiry, FCC 17-78 at 9, para. 21. (June 23, 2017); see also AARP Comments at 76-77; Cisco Comments at 2-3; Mobilitie Comments at 4.

⁶⁷³ There is widespread agreement in the record that the public interest supports measures that will speed deployment of broadband throughout the Nation and increase competition among ISPs. See, e.g., AARP Comments at 76-77; CEI Comments at 5; INCOMPAS Comments at 35; Mobilitie Comments at 4; National Grange Comments at 4; NTCA Comments at 25-26; Public Knowledge Comments at 99. For example, the CPUC states that it conducted a study of the telecommunications market in California and found that access to utility poles is a competitive bottleneck that "limits new network entrants and may raise prices for some telecommunications services." See CPUC Comments 6-7.

⁶⁷⁴ See, e.g., Interisle Comments at 17; NASUCA Comments at 5; Edison Electric Institute Reply at 3; Cogent Comments at 32; Public Knowledge/Common Cause Comments at 99-100; Volo Broadband Comments at 1; Public Knowledge Reply at 46.

⁶⁷⁵ See Cisco Comments at 2-3; Mobilitie Comments at 4; cf. Public Knowledge Comments at 99-100 (asserting the Commission must consider what effect a Title I classification will have on small broadband Internet access service providers and new entrants).

⁶⁷⁶ Charter Comments at 9; see also ACA Comments at 17-18 (arguing that increased pole attachment rates were a direct result of the *Title II Order*); Mobilitie Comments at 4.

⁶⁷⁷ *States That Have Certified That They Regulate Pole Attachments*, Public Notice, 25 FCC Rcd 5541, 5542 (WCB 2010). For example, the CPUC recently opened a comprehensive proceeding on right-of-way access, including the implementation of nondiscriminatory pole attachment rights for broadband Internet access providers pursuant to the CPUC's reverse preemption. CPUC Comments at 8-9. California is among the states that have reverse-preempted the Commission, and therefore we reject California's and San Francisco's objections as to our authority over pole attachments as inapposite. See City and County of San Francisco Comments at 10; CPUC Comments at 7-8; CPUC Reply at 1-2.

attaching equipment—and we remind pole owners of their continuing obligation to offer “rates, terms, and conditions [that] are just and reasonable.”⁶⁷⁸ We will not hesitate to take action where we identify barriers to broadband infrastructure deployment. We have been working diligently to remove barriers to broadband deployment and fully intend to continue to do so.⁶⁷⁹

5. Wireless Infrastructure

183. When the Commission first classified wireless broadband Internet access as an information service in 2007, it emphasized that certain statutory provisions in section 224 (regarding pole attachments) and 332(c)(7) (local authority over zoning) of the Act would continue to apply where the same infrastructure was used to provide a covered service (*e.g.*, cable or telecommunications service)⁶⁸⁰ as well as wireless broadband Internet access.⁶⁸¹ Section 224 gives cable television systems and providers of telecommunications services the right to attach to utility poles of power and telephone companies at regulated rates. Section 332(c)(7) generally preserves state and local authority over “personal wireless service facilities” siting or modification, but subjects that authority to certain limitations.⁶⁸² Among other limitations, it provides that state or local government regulation (1) “shall not unreasonably discriminate among providers of functionally equivalent services,” (2) “shall not prohibit or have the effect of prohibiting the provision of personal wireless services” and (3) may not regulate the siting of personal wireless service facilities “on the basis of the environmental effects of [RF] emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions.”⁶⁸³

184. As to section 224, the Commission clarified in the *Wireless Broadband Internet Access Order* that where the same infrastructure would provide “both telecommunications and wireless broadband Internet access service,” the provisions of section 224 governing pole attachments would continue to apply to such infrastructure used to provide both types of service.⁶⁸⁴ The Commission similarly clarified that section 332(c)(7)(B) would continue to apply to mobile broadband Internet access service where a wireless service provider uses the same infrastructure to provide its “personal wireless services” and wireless broadband Internet access service.⁶⁸⁵

185. We reaffirm the Commission’s interpretations regarding the application of sections 224 and 332(c)(7) to wireless broadband Internet access service here. The Commission’s rationale from 2007, that commingling services does not change the fact that the facilities are being used for the provisioning of services within the scope of the statutory provision, remains equally valid today.⁶⁸⁶ This clarification will alleviate concerns that wireless broadband Internet access providers not face increased barriers to

⁶⁷⁸ 47 U.S.C. § 224(b)(1).

⁶⁷⁹ See AARP Comments at 76 (acknowledging the Commission’s recent proposal of “new rules that would diminish entry barriers associated with pole attachments”); Public Knowledge Comments at 100 (acknowledging the Commission’s recent efforts to speed access to utility poles and lower other barriers to entry such as high costs).

⁶⁸⁰ Section 224 applies to cable and telecommunications service providers, while section 332(c)(7) applies to facilities that provide “personal wireless services,” which include “commercial mobile services, unlicensed wireless services, and common carrier wireless exchange access services.” 47 U.S.C. § 224(d), (e), (f); 47 U.S.C. § 332(c)(7)(C)(i).

⁶⁸¹ *Wireless Broadband Internet Access Order*, 22 FCC Rcd 5901, 5921, 25, paras. 57-70.

⁶⁸² Section 332(c)(7) applies to facilities “for the provision of personal wireless services,” 47 U.S.C. § 332(c)(7)(C)(ii), which include “commercial mobile services, unlicensed wireless services, and common carrier wireless exchange access services.” 47 U.S.C. § 332(c)(7)(C)(i).

⁶⁸³ 47 U.S.C. § 332(c)(7)(B)(i)(I)-(II), (iv).

⁶⁸⁴ *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5922-23, paras. 60-62.

⁶⁸⁵ *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5923-24, paras. 63-65.

⁶⁸⁶ *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5924, para. 65.

infrastructure deployment as a result of today's reclassification.⁶⁸⁷ This clarification also is consistent with our commitment to promote broadband deployment and close the digital divide.

186. Although the wireless infrastructure industry has changed significantly since the adoption of the *Wireless Broadband Internet Access Order*, it remains the case that cell towers and other forms of network equipment can be used “for the provision” of both personal wireless services and wireless broadband Internet access on a commingled basis.⁶⁸⁸ These communications facilities are sometimes built by providers themselves, but are increasingly being deployed by third-parties who then offer the use of these facilities to wireless service providers for a variety of services, including telecommunications services and information services.⁶⁸⁹ To remove any uncertainty, we clarify that section 332(c)(7) applies to facilities, including DAS or small cells, deployed and offered by third-parties for the purpose of provisioning communications services that include personal wireless services.⁶⁹⁰ Consistent with the statutory provisions and Commission precedent, we consider infrastructure that will be deployed for the provision of personal wireless services, including third-party facilities such as neutral-host deployments, to be “facilities for the provision of personal wireless services” and therefore subject to section 332(c)(7) as “personal wireless service facilities” even where such facilities also may be used for broadband Internet access services.

187. We reiterate our commitment to expand broadband access, encourage innovation and close the digital divide. We will closely monitor developments on broadband infrastructure deployment and move quickly to address barriers in a future proceeding if necessary.⁶⁹¹

6. Universal Service

188. The reclassification of consumer and small business broadband access as an information service does not affect or alter the Commission's existing programs to support the deployment and maintenance of broadband-capable networks, i.e., the Connect America Fund's high-cost universal service support mechanisms. As explained in the *USF/ICC Transformation Order*, the Commission has authority to ensure that “the national policy of promoting broadband deployment and ubiquitous access to voice telephony services is fully realized”⁶⁹² and require that “carriers receiving support . . . offer broadband capabilities to customers.”⁶⁹³ What services a particular customer subscribes to is irrelevant as

⁶⁸⁷ See Interisle Comments at 17; Tech Freedom Comments at 96-97.

⁶⁸⁸ 47 U.S.C. § 332(c)(7)(C)(ii).

⁶⁸⁹ Over the past decade, national and regional wireless carriers have been selling their towers to non-carrier entities, with significant tower transactions in 2008, 2012, 2013, 2014 and 2015. According to the Twentieth Mobile Wireless Competition Report released in September 2017, “a majority of towers are now owned or operated by independent companies rather than by mobile wireless service providers.” *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Nineteenth Report, 31 FCC Rcd 10534, 10585, para. 70, n. 185 (WTB 2016); *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Twentieth Report, FCC 17-126, para. 44 (2017).

⁶⁹⁰ Cf. *Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies*, 29 FCC Rcd 12865, 12973, para. 270-272 (2014) (“[T]o the extent DAS or small-cell facilities, including third-party facilities such as neutral host DAS deployments, are or will be used for the provision of personal wireless services, their siting applications are subject to [shot clock requirements of 332(c)(7)].”); see also *Crown Castle NG East Inc. v. Town of Greenburgh*, 2013 WL 3357169 (S.D.N.Y. 2013), *aff'd*, 552 Fed.Appx. 47 (2d Cir. 2014) (upholding application of section 332(c)(7) to deployments by non-service providers).

⁶⁹¹ See, e.g., *Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, Notice of Proposed Rulemaking and Notice of Inquiry, 32 FCC Rcd 3330 (2017).

⁶⁹² USF/ICC Transformation Order, para. 60.

⁶⁹³ Para. 65 (footnotes omitted)

long as high-cost support is used to build and maintain a network that provides both voice and broadband Internet access service. Thus, the classification of broadband Internet access as an information service does not change the eligibility of providers of those services to receive federal high-cost universal service support.

189. *Lifeline*. We conclude that we need not address concerns in the record about the effect of our reclassification of broadband Internet access service as an information service on the Lifeline program at this time.⁶⁹⁴ In November 2017, we adopted a *Notice of Proposed Rulemaking* in the Lifeline proceeding (*Lifeline NPRM*) in which we proposed limiting Lifeline support to facilities-based broadband service provided to a qualifying low-income consumer over the eligible telecommunication carrier's (ETC's) voice- and broadband-capable last-mile network,⁶⁹⁵ and sought comment on discontinuing Lifeline support for service provided over non-facilities-based networks, to advance our policy of focusing Lifeline support to encourage investment in voice- and broadband-capable networks.⁶⁹⁶ As explained in the *Lifeline NPRM*, we “believe the Commission has authority under Section 254(e) of the Act to provide Lifeline support to ETCs that provide broadband service over facilities-based broadband-capable networks that support voice service” and that “[t]his legal authority does not depend on the regulatory classification of broadband Internet access service and, thus, ensures the Lifeline program has a role in closing the digital divide regardless of the regulatory classification of broadband service.”⁶⁹⁷ We thus find that today’s reinstatement of the information service classification for broadband Internet access service does not require us to address here our legal authority to continue supporting broadband Internet access service in the Lifeline program, as such concerns are more appropriately addressed in the ongoing Lifeline proceeding.

7. Preemption of Inconsistent State and Local Regulations

190. We conclude that regulation of broadband Internet access service should be governed principally by a uniform set of federal regulations, rather than by a patchwork of separate state and local requirements. Our order today establishes a calibrated federal regulatory regime based on the pro-competitive, deregulatory goals of the 1996 Act. Allowing state and local governments to adopt their own separate requirements, which could impose far greater burdens than the federal regulatory regime, could significantly disrupt the balance we strike here. Federal courts have uniformly held that an affirmative federal policy of *deregulation* is entitled to the same preemptive effect as a federal policy of regulation.⁶⁹⁸ In addition, allowing state or local regulation of broadband Internet access service could impair the provision of such service by requiring each ISP to comply with a patchwork of separate and potentially conflicting requirements across all of the different jurisdictions in which it operates.⁶⁹⁹ Just as

⁶⁹⁴ In the *Internet Freedom NPRM*, we sought comment on what impact, if any, returning broadband Internet access service to its classification as an information service would have on retaining support for broadband Internet access service in the Lifeline program. *Internet Freedom NPRM*, 32 FCC Rcd at 4457, para. 68.

⁶⁹⁵ Lifeline Public Release para. 62.

⁶⁹⁶ *Id.* at para. 64.

⁶⁹⁷ *Id.* at para. 72.

⁶⁹⁸ *Cf., e.g., Ark. Elec. Coop. Corp. v. Ark. Pub. Serv. Comm’n*, 461 U.S. 375, 383 (1983) (“[A] federal decision to forgo regulation in a given area may imply an authoritative federal determination that the area is best left unregulated, and in that event would have as much pre-emptive force as a decision to regulate.”); *Bethlehem Steel Co. v. N.Y. State Labor Relations Bd.*, 330 U.S. 767, 774 (1947) (state regulation precluded “where failure of the federal officials affirmatively to exercise their full authority takes on the character of a ruling that no such regulation is appropriate or approved pursuant to the policy of the statute”); *Minn. Pub. Utils. Comm’n v. FCC*, 483 F.3d 570, 580-81 (8th Cir. 2007) (*Minn. PUC*) (“[D]eregulation” is a “valid federal interest[] the FCC may protect through preemption of state regulation.”).

⁶⁹⁹ *Cf. Vonage Holdings Corporation Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, Memorandum Opinion and Order, 19 FCC Rcd 22404, 22427, para. 37 (2004) (*Vonage*

(continued....)

the *Title II Order* promised to “exercise our preemption authority to preclude states from imposing regulations on broadband service that are inconsistent” with the federal regulatory scheme, we conclude that we should exercise our authority to preempt any state or local requirements that are inconsistent with the federal deregulatory approach we adopt today.⁷⁰⁰

191. We therefore preempt any state or local measures that would effectively impose rules or requirements that we have repealed or decided to refrain from imposing in this order or that would impose more stringent requirements for any aspect of broadband service that we address in this order. Among other things, we thereby preempt any so-called “economic” or “public utility-type” regulations,⁷⁰¹ including common-carriage requirements akin to those found in Title II of the Act and its implementing rules, as well as other rules or requirements that we repeal or refrain from imposing today because they

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Order) (“Allowing Minnesota’s order to stand would invite similar imposition of 50 or more additional sets of different economic regulations”); *Petition for Declaratory Ruling that pulver.com’s Free World Dialup is Neither Telecommunications Nor a Telecommunications Service*, Memorandum Opinion and Order, 19 FCC Rcd. at 3323, para. 25 (2004) (*Pulver Order*) (“[I]f Pulver were subject to state regulation, it would have to satisfy the requirements of more than 50 states and other jurisdictions”). Many commenters express concern that allowing every state and local government to impose separate regulatory requirements on ISPs would create a patchwork of inconsistent rules that may conflict with one another or with federal regulatory objectives, and that this would impose an undue burden on ISPs that could inhibit broadband investment and deployment and would increase costs for consumers. *See, e.g.*, Cox Comments at 35 (ISPs “rel[y] on . . . uniform national policies to provide service on a consistent basis across [their] footprint without being subject to a patchwork of inconsistent state regulation”); CTIA Comments at 55-56 (“A patchwork quilt of state regulation of the Internet would be unworkable and deeply harmful to consumer interests.”); NCTA Comments at 64, 67 (arguing that “inconsistent state regulation undermines ‘the efficient utilization and full exploitation’ of Internet services” and that ISPs “would be forced to comply with a patchwork of overlapping and potentially conflicting obligations absent federal preemption”); T-Mobile Comments at 26 (“A patchwork quilt of state-by-state regulation would impair providers’ ability to offer nationwide service plans and to engage in uniform practices, undermining consumer welfare. It adds operational and financial burdens without corresponding benefit.”); WIA Comments at 10 n.39 (“[A] patchwork of state and local requirements . . . can reduce carriers’ incentives to invest and hamper their ability to make large scale deployments.”); CTIA Reply at 20 (“[Permitting state regulation] will result in obligations that differ in their particulars from those imposed by the federal government or other states. The resulting patchwork will either balkanize a service provider’s offerings or force the provider to conform all its offerings to the requirements of the most stringent state.”); Verizon Reply at 16 (“[T]he substantial burdens of piecemeal regulation by states would frustrate the federal policy to promote broadband development through light-touch, federal regulation.”); Letter from Anand Vadapalli, President & CEO, Alaska Communications Systems, et al., to The Honorable Ajit Pai, Chairman, The Honorable Mignon Clyburn, Commissioner, The Honorable Michael O’Rielly, Commissioner, Federal Communications Commission, WC Docket No. 17-108, Nov. 17, 2017, at 2 (Letter from Rural ISPs) (“[I]t is important that states and localities not be allowed to impose common carrier-like regulations, including economic regulations, on broadband providers.”); *see also* Letter from William H. Johnson, Senior Vice President Federal Regulatory and Legal Affairs, Verizon, to Marlene Dortch, Secretary, FCC, at 11 (Oct. 25, 2017) (“The possibility of 50 different sets of rules . . . would impose costly requirements, hamstring technological innovations, and create severe regulatory uncertainty; these costs would inevitably hinder investment in broadband Internet.”) (Verizon FCC Preemption White Paper).

⁷⁰⁰ *See Title II Order*, 30 FCC Rcd at 5804, para. 433.

⁷⁰¹ The terms “economic regulation” and “public utility-type regulation,” as used here, are terms of art that the Commission has used to include, among other things, requirements that all rates and practices be just and reasonable; prohibitions on unjust or unreasonable discrimination; tariffing requirements; accounting requirements; entry and exit restrictions; interconnection obligations; and unbundling or network-access requirements. *See, e.g.*, *IP-Enabled Services*, Notice of Proposed Rulemaking, 19 FCC Rcd 4863, 4911-13, paras. 73-74 (2004); *Policy and Rules Concerning Rates for Dominant Carriers*, Notice of Proposed Rulemaking, 2 FCC Rcd 5208, 5222, para. 4 n.5 (1987); *Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorizations Therefor*, Further Notice of Proposed Rulemaking, 84 FCC 2d 445, 525, para. 19 (1981).

could pose an obstacle to or place an undue burden on the provision of broadband Internet access service and conflict with the deregulatory approach we adopt today.⁷⁰²

192. Although we preempt state and local laws that interfere with the federal deregulatory policy restored in this order, we do not disturb or displace the states' traditional role in generally policing such matters as fraud, taxation, and general commercial dealings, so long as the administration of such general state laws does not interfere with federal regulatory objectives.⁷⁰³ Indeed, the continued applicability of these general state laws is one of the considerations that persuade us that ISP conduct regulation is unnecessary here.⁷⁰⁴ Nor do we deprive the states of any functions expressly reserved to them under the Act, such as responsibility for designating eligible telecommunications carriers under section 214(e);⁷⁰⁵ exclusive jurisdiction over poles, ducts, conduits, and rights-of-way when a state certifies that it has adopted effective rules and regulations over those matters under section 224(c);⁷⁰⁶ or authority to adopt state universal service policies not inconsistent with the Commission's rules under section 254.⁷⁰⁷ We appreciate the many important functions served by our state and local partners, and

⁷⁰² We are not persuaded that preemption is contrary to section 706(a) of the 1996 Act, 47 U.S.C. § 1302(a), insofar as that provision directs state commissions (as well as this Commission) to promote the deployment of advanced telecommunications capability. *See, e.g.*, NARUC Comments at 2; Public Knowledge Reply at 27. For one thing, as discussed *infra*, we conclude that section 706 does not constitute an affirmative grant of regulatory authority, but instead simply provides guidance to this Commission and the state commissions on how to use any authority conferred by other provisions of federal and state law. *See infra* Part IV.B.3.a. For another, nothing in this order forecloses state regulatory commissions with jurisdiction over broadband service from promoting the goals set forth in section 706(a) through measures that we do not preempt here, such as by promoting access to rights-of-way under state law, encouraging broadband investment and deployment through state tax policy, and administering other generally applicable state laws. Finally, insofar as we conclude that section 706's goals of encouraging broadband deployment and removing barriers to infrastructure investment are best served by preempting state regulation, we find that section 706 *supports* (rather than prohibits) the use of preemption here.

⁷⁰³ *Cf. Vonage Order*, 19 FCC Rcd at 22405, para. 1; *see also National Association of Regulatory Utility Commissioners Petition for Clarification or Declaratory Ruling that No FCC Order or Rule Limits State Authority to Collect Broadband Data*, Memorandum Opinion and Order, 25 FCC Rcd. 5051, 5054, para. 9 (2010) (*NARUC Broadband Data Order*) ("Classifying broadband Internet access service as an information service . . . does not by itself preclude" all state measures, such as "[s]tate data-gathering efforts" that do not impose an undue burden or conflict with any federal policy, particularly where the Broadband Data Improvement Act acknowledged such state data collection). We thus conclude that our preemption determination is not contrary to section 414 of the Act, which states that "[n]othing in [the Act] shall in any way abridge or alter the remedies now existing at common law or by statute." 47 U.S.C. § 414; *see, e.g.*, Public Knowledge Reply at 27. Under this order, states retain their traditional role in policing and remedying violations of a wide variety of general state laws. *See Operator Service Providers of America Petition for Expedited Declaratory Ruling*, Memorandum Opinion and Order, 6 FCC Rcd 4475, 4477, para. 12 (1991) ("Section 414 of the Act preserves the availability against interstate carriers of such preexisting state remedies as tort, breach of contract, negligence, fraud, and misrepresentation—remedies generally applicable to all corporations operating in the state, not just telecommunications carriers." (footnote omitted)). The record does not reveal how our preemption here would deprive states of their ability to enforce any remedies that fall within the purview of section 414. In any case, a general savings clause like section 414 "do[es] not preclude preemption where allowing state remedies would lead to a conflict with or frustration of statutory purposes." *Exclusive Jurisdiction with Respect to Potential Violations of the Lowest Unit Charge Requirements of Section 315(b) of the Communications Act of 1934, As Amended*, Declaratory Ruling, 6 FCC Rcd 7511, 7513, para. 20 (1991).

⁷⁰⁴ *See supra* Part III.C.3.

⁷⁰⁵ *See* 47 U.S.C. § 214(e).

⁷⁰⁶ *See* 47 U.S.C. § 224(c). We find no basis in the record to conclude that our preemption determination would interfere with states' authority to address rights-of-way safety issues. *See, e.g.*, CPUC Comments at 4-5 (discussing electrical safety requirements).

⁷⁰⁷ *See* 47 U.S.C. § 254(h).

we fully expect that the states will “continue to play their vital role in protecting consumers from fraud, enforcing fair business practices, for example, in advertising and billing, and generally responding to consumer inquiries and complaints” within the framework of this order.⁷⁰⁸

193. *Legal Authority.* We conclude that the Commission has legal authority to preempt inconsistent state and local regulation of broadband Internet access service on several distinct grounds.

194. First, the U.S. Supreme Court and other courts have recognized that, under what is known as the impossibility exception to state jurisdiction, the FCC may preempt state law when (1) it is impossible or impracticable to regulate the intrastate aspects of a service without affecting interstate communications and (2) the Commission determines that such regulation would interfere with federal regulatory objectives.⁷⁰⁹ Here, both conditions are satisfied. Indeed, because state and local regulation of the aspects of broadband Internet access service that we identify would interfere with the balanced federal regulatory scheme we adopt today, they are plainly preempted.

195. As a preliminary matter, it is well settled that Internet access is a jurisdictionally interstate service because “a substantial portion of Internet traffic involves accessing interstate or foreign websites.”⁷¹⁰ Thus, when the Commission first classified a form of broadband Internet access service in the *Cable Modem Order*, it recognized that cable Internet service is an “interstate information service.”⁷¹¹ Five years later, the Commission reaffirmed the jurisdictionally interstate nature of broadband Internet access service in the *Wireless Broadband Order*.⁷¹² And even when the *Title II Order* reclassified broadband Internet access service as a telecommunications service, the Commission continued to recognize that “broadband Internet access service is jurisdictionally interstate for regulatory purposes.”⁷¹³ The record continues to show that broadband Internet access service is predominantly interstate because a substantial amount of Internet traffic begins and ends across state lines.⁷¹⁴

⁷⁰⁸ *Vonage Order*, 19 FCC Rcd at 22405, para. 1. Cf. ALEC Comments at 2-4 (discussing the role of state consumer protection laws); NARUC Comments at 4 (discussing “[s]tate authority to address service quality, fraud, issues of public health and safety/reliability, and universal service”); CPUC Reply at 13 (urging the Commission to preserve state authority to “advance universal service, protect the public safety and welfare, ensure the continued quality of telecommunications services, [and] safeguard[] consumers’ rights”).

⁷⁰⁹ See, e.g., *Vonage Order*, 19 FCC Rcd at 22413-15, 22418-24, paras. 17-19, 23-32; *Minn. PUC*, 483 F.3d at 578-81. The “impossibility exception” was recognized by the Supreme Court in *Louisiana Public Service Commission v. FCC*, 476 U.S. 355, 375 n.4 (1986) (“FCC pre-emption of state regulation [has been] upheld where it was not possible to separate the interstate and intrastate components of the asserted FCC regulation.”), and has been applied in circumstances analogous to those here, e.g., *Minn. PUC*, 483 F.3d at 578-81; *California v. FCC*, 39 F.3d 919, 932-33 (9th Cir. 1994) (*California III*).

⁷¹⁰ *Bell Atl. Tel. Cos. v. FCC*, 206 F.3d 1, 5 (D.C. Cir. 2000) (quoting *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Inter-Carrier Compensation for ISP-Bound Traffic*, Declaratory Ruling, 14 FCC Rcd 3689, 3701-02, para. 18 (1999)); see also *NARUC Broadband Data Order*, 25 FCC Rcd. at 5054 n.24 (“Although the Commission has acknowledged that broadband Internet access service traffic may include an intrastate component, it has concluded that broadband Internet access service is properly considered jurisdictionally interstate for regulatory purposes.”); *High-Cost Universal Service Support et al.*, Order on Remand, 24 FCC Rcd 6475, 6496 n.69 (2008) (“[S]ervices that offer access to the Internet are jurisdictionally interstate services. . . . [T]he Commission has reaffirmed this ruling for a variety of broadband Internet access services.”) (collecting authorities).

⁷¹¹ *Cable Modem Order*, 17 FCC Rcd at 4832, para. 59.

⁷¹² *Wireless Broadband Order*, 22 FCC Rcd at 5911, para. 28.

⁷¹³ *Title II Order*, 30 FCC Rcd at 5803, para. 431.

⁷¹⁴ See, e.g., Cox Comments at 35-37; Comcast Comments at 78-82; CTIA Comments at 54-55; NCTA Comments at 65; T-Mobile Comments at 25-26; Mobile Future Reply at 15.

196. Because both interstate and intrastate communications can travel over the same Internet connection (and indeed may do so in response to a single query from a consumer), it is impossible or impracticable for ISPs to distinguish between intrastate and interstate communications over the Internet or to apply different rules in each circumstance. Accordingly, an ISP generally could not comply with state or local rules for intrastate communications without applying the same rules to interstate communications.⁷¹⁵ Thus because any effort by states to regulate intrastate traffic would interfere with the Commission's treatment of interstate traffic, the first condition for conflict preemption is satisfied.

197. The second condition for the impossibility exception to state jurisdiction is also satisfied. For the reasons explained above, we find that state and local regulation of the aspects of broadband Internet access service that we identify would interfere with the balanced federal regulatory scheme we adopt today.⁷¹⁶

198. Second, the Commission has independent authority to displace state and local regulations in accordance with the longstanding federal policy of nonregulation for information services.⁷¹⁷ For more than a decade prior to the 1996 Act, the Commission consistently preempted state regulation of information services (which were then known as "enhanced services").⁷¹⁸ When Congress adopted the

⁷¹⁵ Cf. *California III*, 39 F.3d at 932 (upholding preemption where "the FCC determined that it would not be economically feasible . . . to offer the interstate portion of [enhanced] services on an integrated basis while maintaining separate facilities and personnel for the intrastate portion"); *Vonage Order*, 19 FCC Rcd at 22419-21, para. 25 (discussing the difficulty of distinguishing intrastate and interstate communications over IP-based services); see also CTIA Comments at 57 ("While there likely are some slivers of broadband communications that do not cross state boundaries, it would be impossible to apply state regulation to those bits without affecting interstate traffic and thereby interfering with federal aims."); T-Mobile Comments at 26 ("During the course of a [single] fixed broadband connection, a user in one state will almost surely interact many times with information stored in other states and other nations. A mobile broadband communication involves that as well, [and] adds the possibility that the user herself will transit between or among states during the course of a single session."); CTIA Reply at 17 ("[F]ederal preemption is appropriate where, as here, it would be impossible to apply state regulation to this interstate offering without interfering with federal aims."); USTelecom Reply at 22 ("[T]he architecture of the Internet makes it impossible to separate the interstate and intrastate aspects of broadband service. . . . [O]ne could not plausibly offer a separate intrastate broadband internet access service."). We therefore reject the view that the impossibility exception to state jurisdiction does not apply because some aspects of broadband Internet access service could theoretically be regulated differently in different states. Cf. Public Knowledge Comments, CG Docket No. 17-131, at 3 (June 16, 2017). Even if it were possible for New York to regulate aspects of broadband service differently from New Jersey, for example, it would not be possible for New York to regulate the use of a broadband Internet connection for *intrastate communications* without also affecting the use of that same connection for *interstate communications*. The relevant question under the impossibility exception is not whether it would be possible to have separate rules in separate states, but instead whether it would be feasible to allow separate state rules for intrastate communications while maintaining uniform federal rules for interstate communications.

⁷¹⁶ See *supra* para. 191.

⁷¹⁷ See generally *Pulver Order*, 19 FCC Rcd at 3316-23, paras. 15-25 (discussing the federal policy of nonregulation for information services).

⁷¹⁸ *Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry)*, Memorandum Opinion and Order on Further Reconsideration, 88 F.C.C.2d 512, 541 n.34 (1981) ("[W]e have . . . preempted the states in two respects. . . . [W]e have determined that the provision of enhanced services is not a common carrier public utility offering and that efficient utilization and full exploitation of the interstate telecommunications network would best be achieved if these services are free from public utility-type regulation. . . . States, therefore, may not impose common carrier tariff regulation on a carrier's provision of enhanced services."), *pets. for review denied*, *Comput. & Commc'ns Indus. Ass'n v. FCC*, 693 F.2d 198, 206-07, 209, 214-18 (D.C. Cir. 1982) (CCIA); *Amendment of Sections 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry) et al.*, Report and Order, 104 F.C.C.2d 958, 1125, para. 343 (1986) ("In the *Computer II* proceeding . . . we preemptively deregulated enhanced services, foreclosing the possibility of state regulation of such offerings."), *as modified*, *Computer III Remand Proceedings: Bell Operating Company Safeguards and Tier 1 Local Exchange Company Safeguards*, Report and Order, 6 FCC Rcd 7571, 7625-37, paras. 110-131 (1991), *pets. for review denied*,

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Commission’s regulatory framework and its deregulatory approach to information services in the 1996 Act, it thus embraced our longstanding policy of preempting state laws that interfere with our federal policy of nonregulation.⁷¹⁹

199. Multiple provisions enacted by the 1996 Act confirm Congress’s approval of our preemptive federal policy of nonregulation for information services. Section 230(b)(2) of the Act, as added by the 1996 Act, declares it to be “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”—including “any information service”—“unfettered by Federal or State regulation.”⁷²⁰ The Commission has observed that this provision makes clear that “federal authority [is] preeminent in the area of information services” and that information services “should remain free of regulation.”⁷²¹ To this same end, by directing that a communications service provider “shall be treated as a common carrier under [this Act] only to the extent that it is engaged in providing telecommunications services,” section 3(51)—also added by the 1996 Act—forbids any common-carriage regulation, whether federal or state, of information services.⁷²²

200. Finally, our preemption authority finds further support in the Act’s forbearance provision. Under Section 10(e) of the Act, Commission forbearance determinations expressly preempt any contrary state regulatory efforts.⁷²³ It would be incongruous if state and local regulation were preempted when the

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California III, 39 F.3d at 931-33; see also *Amendment of Sections 64.702 of the Commission’s Rules and Regulations (Third Computer Inquiry) et al.*, Memorandum Opinion and Order on Reconsideration, 2 FCC Rcd 3035, 3061 n.374 (1987) (“State public utility regulation of entry and service terms and conditions (including rates and feature availability), ostensibly applied to ‘intrastate’ enhanced services, would have a severe impact on, and would effectively negate, federal policies promoting competition and open entry in the interstate markets for such services.”); *CCIA*, 693 F.2d at 214 (“Courts have consistently held that when state regulation of [communications] equipment or facilities would interfere with achievement of a federal regulatory goal, the Commission’s jurisdiction is paramount and conflicting state regulation must necessarily yield to the federal regulatory scheme.”) (footnotes omitted).

⁷¹⁹ See *City of New York v. FCC*, 486 U.S. 57, 66-70 (1988) (holding that because the Commission had preempted all state and local regulation of cable television signal quality for 10 years before the passage of the Cable Communications Policy Act of 1984, and the Cable Act generally adopted the same regulatory framework that the Commission had been following, Congress implicitly approved the Commission’s authority to preempt these laws). Contrary to the suggestions of some commenters, the Supreme Court has held, in cases involving the Communications Act, that no express authorization or other specific statutory language is required for the Commission to preempt state law. See *id.* at 64 (“[A] pre-emptive regulation’s force does not depend on express congressional authorization to displace state law. . . . [I]f the agency’s choice to pre-empt represents a reasonable accommodation of conflicting policies that were committed to the agency’s care by statute, [it] should not [be] disturb[ed] . . . unless it appears from the statute or its legislative history that the accommodation is not one that Congress would have sanctioned.” (internal quotation marks omitted)); *Louisiana Pub. Serv. Comm’n*, 476 U.S. at 375 n.4 (recognizing implicit FCC preemption authority under the impossibility exception to state jurisdiction). And because the Supreme Court has interpreted the Communications Act to authorize the Commission to supersede state law in many respects, we reject the contention that any presumption against preemption controls here. See *Puerto Rico v. Franklin Cal. Tax-Free Trust*, 136 S. Ct. 1938, 1946 (2016) (once Congress has decided to preempt state law, “we do not invoke any presumption against pre-emption” in disputes over the *scope* of preemption); *Smiley v. Citibank (S.D.), N.A.*, 517 U.S. 735, 743-44 (1996) (distinguishing “the question of the substantive (as opposed to pre-emptive) meaning of a statute” from “the question *whether* a statute is pre-emptive” and rejecting the view that a presumption against preemption “in effect trumps *Chevron*”).

⁷²⁰ 47 U.S.C. § 230(b)(2), (f)(2).

⁷²¹ *Pulver Order*, 19 FCC Rcd at 316, para. 16; see also *Vonage Order*, 19 FCC Rcd at 22425-26, paras. 34-35.

⁷²² 47 U.S.C. § 153(51)

⁷²³ 47 U.S.C. § 160(e).

Commission decides to forbear from a provision that would otherwise apply, or if the Commission adopts a regulation and then forbears from it, but not preempted when the Commission determines that a requirement does not apply in the first place. Nothing in the Act suggests that Congress intended for state or local governments to be able to countermand a federal policy of nonregulation or to possess any greater authority over broadband Internet access service than that exercised by the federal government.

8. Disability Access Provisions

201. The Communications Act provides the Commission with authority to ensure that consumers with disabilities can access broadband networks regardless of whether broadband Internet access service is classified as telecommunications service or information service. The Twenty-First Century Communications and Video Accessibility Act of 2010 (CVAA)⁷²⁴ already applies a variety of accessibility requirements to broadband Internet access service.⁷²⁵ In particular, to ensure that people with disabilities have access to the communications technologies of the Twenty-First Century, the CVAA added several provisions to the Communications Act, including Section 716 of the Act,⁷²⁶ which requires that providers of advanced communications services (ACS)⁷²⁷ and manufacturers of equipment used for ACS make their services and products accessible to people with disabilities, unless it is not achievable to do so.⁷²⁸ These mandates already apply according to their terms in the context of broadband Internet access service.⁷²⁹ The CVAA also adopted a requirement, in section 718, that ensures access to Internet browsers in wireless phones for people who are blind and visually impaired.⁷³⁰ In addition, the CVAA directed the Commission to enact regulations to prescribe, among other things, that networks used to provide ACS “may not impair or impede the accessibility of information content when accessibility has been incorporated into that content for transmission through . . . networks used to provide [ACS].”⁷³¹ Finally, new section 717 creates new enforcement and recordkeeping requirements applicable to sections 255, 716, and 718.⁷³² Section 710 of the Act addressing hearing aid compatibility and implementing rules enacted thereunder also apply regardless of any action taken in this Order.⁷³³ To the extent that other

⁷²⁴ Twenty-First Century Communications and Video Accessibility Act of 2010, Pub. L. No. 111-260, 124 Stat. 2751 (2010) (codified in various sections of Title 47) (CVAA), *amended by* Pub. L. No. 111-265, 124 Stat. 2795 (2010) (technical corrections).

⁷²⁵ *Title II Order*, 30 FCC Rcd at 5828, para. 473. Congress adopted the CVAA after recognizing that “Internet-based and digital technologies . . . driven by growth in broadband . . . are now pervasive, offering innovative and exciting ways to communicate and share information.” S. Rep. No. 111-386, at 1 (2010); H.R. Rep. No. 111-563, at 19 (2010). Congress thus clearly had Internet-based communications technologies in mind when enacting the accessibility provisions of Section 716 (as well as the related provisions of sections 717-718) and in providing important protections with respect to advanced communications services (ACS).

⁷²⁶ 47 U.S.C. § 617(f) (“The requirements of this section shall not apply to any equipment or services, including interconnected VoIP service, that are subject to the requirements of section 255 of this title on the day before October 8, 2010. Such services and equipment shall remain subject to the requirements of section 255 of this title.”).

⁷²⁷ ACS means: “(A) interconnected VoIP service; (B) non-interconnected VoIP service; (C) electronic messaging service; and (D) interoperable video conferencing service.” 47 U.S.C. § 153(1).

⁷²⁸ *Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010 et al.*, CG Docket No. 10-213 *et al.*, Second Report and Order, 28 FCC Rcd 5957, para. 1 (2013) (*Section 716 Implementation Order*).

⁷²⁹ *Section 716 Implementation Order*, 28 FCC Rcd at 5960-61, para. 7.

⁷³⁰ 47 U.S.C. §§ 617, 619.

⁷³¹ 47 U.S.C. § 617(e)(1)(B); *see also* 47 CFR § 14.20(c).

⁷³² 47 U.S.C. § 618.

accessibility issues arise,⁷³⁴ we will address those issues in separate proceedings in furtherance of our statutory authority to ensure that individuals with disabilities have adequate access to broadband networks.⁷³⁵

9. Continued Applicability of Title III Licensing Provisions

202. We also note that our decision today to classify wireless broadband Internet access service as an information service does not affect the general applicability of the spectrum allocation and licensing provisions of Title III and the Commission's rules to this service.⁷³⁶ Title III generally provides the Commission with authority to regulate "radio communications" and "transmission of energy by radio."⁷³⁷ Among other provisions, Title III gives the Commission the authority to adopt rules preventing interference and allows it to classify radio stations.⁷³⁸ It also establishes the basic licensing scheme for radio stations, allowing the Commission to grant, revoke, or modify licenses.⁷³⁹ Title III further allows the Commission to make such rules and regulations and prescribe such restrictions and conditions as may be necessary to carry out the provisions of the Act.⁷⁴⁰ Provisions governing access to and use of spectrum (and their corresponding Commission rules) do not depend on whether the service using the spectrum is classified as a telecommunications or information service under the Act.

IV. A LIGHT-TOUCH FRAMEWORK TO RESTORE INTERNET FREEDOM

203. For decades, the lodestar of the Commission's approach to preserving Internet freedom was a light-touch, market-based approach. This approach debuted at the dawn of the commercial Internet during the Clinton Administration, when an overwhelming bipartisan consensus made it national policy to preserve a digital free market "unfettered by Federal or State regulation."⁷⁴¹ It continued during the Bush Administration, as reflected in the "Four Freedoms" articulated by Chairman Powell in 2004 and was then formally adopted by a unanimous Commission in 2005 as well as in a series of classification decisions reviewed above.⁷⁴² And it continued for the first six years of the Obama Administration. We reaffirm

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⁷³³ See generally 47 U.S.C. § 610; see also *Improvements to Benchmarks and Related Requirements Governing Hearing Aid-Compatible Mobile Handsets; Amendment of the Commission's Rules Governing Hearing Aid-Compatible Mobile Handsets*, Fourth Report and Order and Notice of Proposed Rulemaking, 15 FCC Rcd 13845, 13846, para. 2 (2015) (*Hearing Aid Compatibility Order*).

⁷³⁴ See, e.g., CPUC Comments at 25-26; CTAB Comments at 8; TDI et al. Comments at 2-7; Public Knowledge Comments at 95.

⁷³⁵ See CenturyLink Comments at 60; ACA Reply at 30.

⁷³⁶ *Wireless Broadband Internet Access Order*, 22 FCC Rcd at 5914-15, paras. 35-37. These provisions and rules continue to apply because the service is using radio spectrum.

⁷³⁷ See Title III – Provisions Relating to Radio, 47 U.S.C. § 301 et seq. See also *IP-Enabled Services NPRM*, 19 FCC Rcd at 4918.

⁷³⁸ 47 U.S.C. §§ 302, 303.

⁷³⁹ 47 U.S.C. §§ 307-309, 312, 316.

⁷⁴⁰ 47 U.S.C. § 303(r). See, e.g., *Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services*, Memorandum Opinion and Order on Reconsideration, 14 FCC Rcd 16340, 16452, para. 27 (1999).

⁷⁴¹ 47 U.S.C. § 230(b)(2).

⁷⁴² These include the freedoms for consumers to (1) "access the lawful Internet content of their choice"; (2) "run applications and use services of their choice, subject to the needs of law enforcement"; (3) "connect their choice of legal devices that do not harm the network"; and (4) "enjoy competition among network providers, application and service providers, and content providers." *Internet Policy Statement*, 20 FCC Rcd at 14988, para. 5; see also Michael K. Powell, Chairman, Federal Communications Commission, *Preserving Internet Freedom: Guiding Principles for the Industry*, Remarks at the Silicon Flatirons Symposium (Feb. 8, 2004),

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and honor this longstanding, bipartisan commitment by adopting a light-touch framework that will preserve Internet freedom for all Americans.

204. To implement that light-touch framework, we next reevaluate the rules and enforcement regime adopted in the *Title II Order*. That reevaluation is informed—as it must be—by the return of jurisdiction to the Federal Trade Commission to police ISPs for anticompetitive acts or unfair and deceptive practices. Against that backdrop, we first decide to retain the transparency rule adopted in the *Open Internet Order* with slight modifications. History has shown that transparency is critical to openness—consumers and entrepreneurs are not afraid to make their voices heard when ISPs engage in practices to which they object. And we conclude that preexisting federal protections—alongside the transparency rule we adopt today—are not only sufficient to protect Internet freedom, but will do so more effectively and at lower social cost than the *Title II Order*'s conduct rules. In short, we believe the light-touch framework we adopt today will pave the way for additional innovation and investment that will facilitate greater consumer access to more content, services, and devices, and greater competition.

A. Transparency

205. “Sunlight,” Justice Brandeis famously noted, “is . . . the best of disinfectants.”⁷⁴³ This is the case in our domain. Properly tailored transparency disclosures provide valuable information to the Commission to enable it to meet its statutory obligation to observe the communications marketplace to monitor the introduction of new services and technologies, and to identify and eliminate potential marketplace barriers for the provision of information service.⁷⁴⁴ Such disclosures also provide valuable information to other Internet ecosystem participants;⁷⁴⁵ transparency substantially reduces the possibility that ISPs will engage in harmful practices, and it incentivizes quick corrective measures by providers if problematic conduct is identified.⁷⁴⁶ Appropriate disclosures help consumers make informed choices about their purchase and use of broadband Internet access services.⁷⁴⁷ Moreover, clear disclosures improve consumer confidence in ISPs' practices while providing entrepreneurs and other small businesses the information they may need to innovate and improve products.

206. Today, we commit to balanced ISP transparency requirements based on a sound legal footing. We return, with minor adjustments, to the transparency rule adopted in the 2010 *Open Internet Order*,⁷⁴⁸ which provides consumers and the Commission with essential information while minimizing the burdens imposed on ISPs. In so doing, we modify the existing transparency rule to eliminate many of the burdensome additional reporting obligations adopted by the Commission in the *Title II Order*.⁷⁴⁹ We find that those additional obligations do not benefit consumers, entrepreneurs, or the Commission sufficiently to outweigh the burdens imposed on ISPs. The transparency rule we adopt will aid the Commission in

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https://apps.fcc.gov/edocs_public/attachmatch/DOC-243556A1.pdf (announcing four principles for Internet freedom to further ensure that the Internet would remain a place for free and open innovation with minimal regulation).

⁷⁴³ L. Brandeis, *Other People's Money*, Chapter 5 (National Home Library Foundation ed. 1933), available at <http://www.law.louisville.edu/library/collections/brandeis/node/196>.

⁷⁴⁴ 47 U.S.C. § 257.

⁷⁴⁵ See, e.g., Apple Reply at 3; Internet Association Comments at 30-31.

⁷⁴⁶ See, e.g., R Street Institute Comments at 28-29.

⁷⁴⁷ See, e.g., American Association of Law Libraries Comments at 17; Comcast Comments at 53-54; TDI et al. Comments at 7; CWA/NAACP Comments at 18; Microsoft Comments at 15; R Street Institute Comments at 28-29; Apple Reply at 3; see also TDI et al. Comments at 8 (explaining that transparency will help ensure that consumers with disabilities can better understand how ISPs' plans, terms, and practices will affect their ability to use the applications and services of their choice).

⁷⁴⁸ *Open Internet Order*, 25 FCC Rcd at 17936-41, 17959, paras. 53-61, 98.

⁷⁴⁹ *Title II Order*, 30 FCC Rcd at 5669-82, paras. 154-84.

“identifying . . . market entry barriers for entrepreneurs and other small businesses in the provision and ownership of . . . information services.”⁷⁵⁰ We also conclude that our transparency rule readily survives First Amendment scrutiny. The disclosure requirements we adopt apply to both fixed and mobile ISPs.

1. History of the Transparency Rule

207. *The Open Internet Order.* The transparency rule, first adopted in the *Open Internet Order*, requires both fixed and mobile ISPs to “publicly disclose accurate information regarding the network management practices, performance, and commercial terms of its broadband Internet access services sufficient for consumers to make informed choices.”⁷⁵¹ In addition, the *Open Internet Order* provided guidance on both what information should be disclosed and how those disclosures should be made.⁷⁵² The Commission described the types of information that should be included in each category, but emphasized the importance of flexibility in implementing the rule, making clear that “effective disclosures will likely include some or all” of the listed types of information.⁷⁵³ Though the other rules adopted in the *Open Internet Order* were overturned, the D.C. Circuit upheld the transparency rule in *Verizon*.⁷⁵⁴

208. *2011 Advisory Guidance.* On June 30, 2011, the Enforcement Bureau and Office of General Counsel released guidance “regarding specific methods of disclosure that will be considered to comply with the transparency rule,”⁷⁵⁵ addressing concerns about the scope of required disclosures and potential burdens on small providers. The *2011 Advisory Guidance* provided detail on methods for disclosure of actual performance metrics, and the contents of the disclosures regarding network practices, performance characteristics, and commercial terms, and clarified the requirement that disclosures be made “at the point of sale.”⁷⁵⁶ The *2011 Advisory Guidance* clarified that disclosure of the information listed in paragraphs 56 and 98 of the *Open Internet Order* was sufficient to satisfy the transparency rule notwithstanding the *Open Internet Order*’s assertion that the list was “not necessarily exhaustive, nor is it a safe harbor.”⁷⁵⁷

209. *2014 Advisory Guidance.* In July 2014, in the wake of the *Verizon* decision, the Enforcement Bureau issued further guidance emphasizing the importance of consistency between an ISP’s disclosures under the transparency rule and that provider’s advertising claims or other public statements. The *2014 Advisory Guidance* explained that the transparency rule “prevents a broadband

⁷⁵⁰ 47 U.S.C. § 257(a).

⁷⁵¹ *Open Internet Order*, 25 FCC Rcd at 17937, paras. 54.

⁷⁵² *Id.* at 17938-40, 17959, paras. 56-57, 98.

⁷⁵³ *Id.*

⁷⁵⁴ *Verizon v. FCC*, 740 F.3d 623, 659 (D.C. Cir. 2014).

⁷⁵⁵ *FCC Enforcement Bureau and Office of General Counsel Issue Advisory Guidance for Compliance with Open Internet Transparency Rule*, WC Docket No. 09-191, Public Notice, 26 FCC Rcd 9411, 9411 (2011) (*2011 Advisory Guidance*).

⁷⁵⁶ *Id.*

⁷⁵⁷ *Id.* at 9416. Paragraph 56 of the *Open Internet Order* provided the following non-exhaustive list of disclosures: network practices, including congestion management, application-specific behavior, device attachment rules, and security; performance characteristics, including a service description and the impact of specialized services; and commercial terms, including pricing, privacy policies, and redress options. *Open Internet Order* 25 FCC Rcd at 17938-39, para. 56. Paragraph 98 made clear that mobile ISPs must comply with the transparency requirements and states that such providers must “disclose their third-party device and application certification procedures, if any”; “clearly explain their criteria for any restrictions on use of their network”; and “expeditiously inform device and application providers of any decisions to deny access to the network or of a failure to approve their particular devices or applications.” *Open Internet Order*, 25 FCC Rcd at 17959, para. 98.

Internet access provider from making assertions about its service that contain errors, are inconsistent with the provider's disclosure statement, or are misleading or deceptive."⁷⁵⁸

210. *Title II Order*. In the *Title II Order*, the Commission broadened the transparency rule's requirements by interpreting the rule to mandate certain additional reporting obligations it termed "enhancements."⁷⁵⁹ These additional reporting obligations, although falling within the same broad categories as those listed in the *Open Internet Order*, required that providers include far greater technical detail in their disclosures. For example, all ISPs, except small providers exempt under the *Small Provider Waiver Order*,⁷⁶⁰ were required to make specific disclosures regarding the commercial terms (including specific information regarding prices and fees),⁷⁶¹ performance characteristics (including, for example, packet loss and a requirement that these disclosures be reasonably related to the performance a consumer could expect in the geographic area in which they are purchasing service),⁷⁶² and network practices (including, for example, application and user-based practices)⁷⁶³ of the broadband Internet access services they offer. The *Title II Order* also established a safe harbor for the form and format of disclosures intended for consumers and delegated development of the format to the agency's Consumer Advisory Committee (CAC).⁷⁶⁴ The *2016 Advisory Guidance*, released on delegated authority, provided examples

⁷⁵⁸ *FCC Enforcement Advisory, Open Internet Transparency Rule: Broadband Providers Must Disclose Accurate Information to Protect Consumers*, Public Notice, 29 FCC Rcd 8606, 8607 (2014) (*2014 Advisory Guidance*).

⁷⁵⁹ *Title II Order*, 30 FCC Rcd at 5672, para. 162.

⁷⁶⁰ *Small Business Exemption From Open Internet Enhanced Transparency Requirements*, GN Docket No. 14-28, Order, 32 FCC Rcd 1772 (2017) (*Small Provider Waiver Order*).

⁷⁶¹ The *Title II Order* retained the requirement that providers disclose privacy policies and redress options and provides greater specificity with regard to the required pricing disclosure. The *Title II Order* required that providers must disclose both the price—which includes the full monthly service charge as well as clear notation of, and information regarding, any promotional rate, including the full monthly charge after the termination of the promotion—as well as any other one time or recurring fees or surcharges the consumer may be charged. In addition, the *Title II Order* mandated disclosure of data caps and allowances. *Title II Order*, 30 FCC Rcd at 5672-73, para. 164.

⁷⁶² The *Open Internet Order*, read together with the *2011 Advisory Guidance*, limited the performance characteristic disclosures to a service description (“[a] general description of the service, including the service technology, expected and actual access speed and latency, and the suitability of the service for real-time applications”) and the impact of specialized services. *Open Internet Order*, 25 FCC Rcd at 17939, para. 56; *2011 Advisory Guidance*, 26 FCC Rcd at 9416. The *Title II Order's* additional reporting obligations expanded on these requirements, adding the disclosure of packet loss; the requirement that “actual network performance data should be reasonably related to the performance the consumer would likely experience in the geographic area in which the consumer is purchasing service . . . measured in terms of average performance over a reasonable period of time and during times of peak usage”; and the requirement that performance disclosures be “for each broadband service,” requiring mobile ISPs to make specific disclosures for each technology. *Title II Order*, 25 FCC Rcd at 5674-75, paras. 165-166.

⁷⁶³ The *Open Internet Order* included specific disclosures related to congestion management, application-specific behavior, device attachment rules, and security. *Open Internet Order*, 25 FCC Rcd at 17938-39, para. 56. The *Title II Order* maintained these as required disclosures, but additionally required disclosure of any practices “applied to traffic associated with a particular user or user group, including any application-agnostic degradation of service to a particular end user.” It also demanded greater specificity regarding the types of information that must be included in disclosures of application-based or user-based practices. *Title II Order*, 25 FCC Rcd at 5676-77, para. 169.

⁷⁶⁴ *Title II Order*, 25 FCC Rcd at 5679-81, paras. 176-81. The Consumer and Governmental Affairs, Wireline Competition, and Wireless Telecommunications Bureaus approved the CAC's proposed labels on April 4, 2016 pursuant to authority delegated to the Bureaus in the *Title II Order*. *Consumer and Governmental Affairs, Wireline Competition, and Wireless Telecommunications Bureaus Approve Open Internet Broadband Consumer Labels*, Public Notice, 31 FCC Rcd 3358 (2016).

of acceptable methodologies for disclosure of performance characteristics and offered guidance regarding compliance with the point of sale requirement.⁷⁶⁵

2. Refining the Transparency Rule

211. Today, we retain the transparency rule as established in the *Open Internet Order*, with some modifications, and eliminate the additional reporting obligations of the *Title II Order*. We find many of those additional reporting obligations significantly increased the burdens imposed on ISPs without providing countervailing benefits to consumers or the Commission.⁷⁶⁶ As a result, we recalibrate the requirements under the transparency rule. Specifically, we adopt the following rule:

*Any person providing broadband Internet access service shall publicly disclose accurate information regarding the network management practices, performance, and commercial terms of its broadband Internet access services sufficient to enable consumers to make informed choices regarding the purchase and use of such services and entrepreneurs and other small businesses to develop, market, and maintain Internet offerings. Such disclosure shall be made via a publicly available, easily accessible website or through transmittal to the Commission.*⁷⁶⁷

212. In doing so, we note that the record overwhelmingly supports retaining at least some transparency requirements.⁷⁶⁸ Crucially, the transparency rule will ensure that consumers have the

⁷⁶⁵ For example, the guidance notes that for many fixed providers, performance is likely to be consistent across the provider's footprint so long as the same technology is deployed and that in such a case a single disclosure for the full service area may be sufficient. By contrast, mobile performance may vary, and the guidance suggested the use of CMA as an appropriate geographic area on which to base disclosures. *Guidance on Open Internet Transparency Requirements*, Public Notice 31 FCC Rcd 5330 (2016) (2016 Advisory Guidance).

⁷⁶⁶ See, e.g., ADTRAN Comments at 26-27; AT&T Comments at 11, n.7; CenturyLink Comments at 35; Comcast Comments at 58-59; CTIA Comments at 18; Cox Comments at 26; Frontier Comments at 12; Sprint Comments at 13, 16; T-Mobile Comments at 18; WISPA Comments at 43; Alamo Broadband Reply at 2; CTIA Reply at 2, 43. *But see*, e.g., American Association of Community Colleges Comments at 18-19; Cogent Comments at 25-26; CWA/NAACP Comments at 3-4, 17-18; Consumers Union Comments at 16-17; TDI et al. Comments at 7-8.

⁷⁶⁷ For purposes of these rules, "consumer" includes any subscriber to the ISP's broadband Internet access service, and "person" includes any "individual, group of individuals, corporation, partnership, association, unit of government or legal entity, however organized," cf. 47 CFR § 54.8(a)(6).

⁷⁶⁸ See, e.g., AARP Comments at 47; ACA Comments at 76-77; ADTRAN Comments at 26-27; American Association of Community Colleges Comments at 18-19; American Association of Law Libraries et al. Comments at 17; Asian Pacific American Institute of Congressional Studies et al. Comments at 13-14; AT&T Comments at 11; Atty's General Comments at 4, 21-22; Cogent Comments at 25-26; Comcast Comments at 53-54, 58-59; CWA/NAACP Comments at 3-4, 17-18; Consumers Union Comments at 16-17; Cox Comments at 26; CTIA Comments at 18-21; David W. Quist Comments at 1; ESA Comments at 12; Free Press Comments at 70-71; HTTP Comments at 2; Illinois Department of Innovation and Technology Comments at 1-2; Independent Film & Television Alliance Comments at 4-5; Information Technology Industry Council (ITIC) Comments at 5; Internet Association Comments at 30-31; John Harrington Comments at 1; LGBT Technology Partnership Comments at 3; Mergen Comments at 1; Microsoft Comments at 15; New Media Rights Comments at 13; Nominum Comments at 6; Pat Welch Comments at 5; R Street Comments at 28-29; Sprint Comments at 13, 15-16; TDI et al. Comments at 7-8; T-Mobile Comments at 18; Verizon Comments at 4, 19; WISPA Comments at 43; WTA Comments at 11, 13; City and County of San Francisco Reply at 4; ACA Reply at 34; ADTRAN Reply at 6-7; Apple Reply at 3; Association of Research Libraries Reply at 11; AT&T Reply at 11-12; County of Santa Clara Reply at 2, 8, 11; CTIA Reply at 2; David Choffnes Reply at 4; INCOMPAS Reply at 43; Verizon Reply at 5, 21; Software and Information Industry Alliance Reply at 5, 7-9; TechFreedom Reply at 84, 86, 98; OTI New America Reply at 28, n. 82; Nominum Reply at 7; Internet Association Reply at 20; Letter from Ted Winterer, Mayor, City of Santa Monica, to Ajit Pai, Chairman, FCC, WC Docket No. 17-108, at 1 (filed Jul. 10, 2017). We reject commenter assertions that we should not maintain any transparency requirements. See, e.g., CenturyLink Comments at 34-35 (stating that "[a]rguably, even the more onerous aspects of the transparency rules adopted by the 2010 Open Internet Order went too far"); ICLE Policy Reply at 42 (suggesting that public disclosure without a rule would be sufficient). CenturyLink does

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information necessary to make informed choices about the purchase and use of broadband Internet access service, which promotes a competitive marketplace for those services. Disclosure supports innovation, investment, and competition by ensuring that entrepreneurs and other small businesses have the technical information necessary to create and maintain online content, applications, services, and devices, and to assess the risks and benefits of embarking on new projects.⁷⁶⁹

213. What is more, disclosure increases the likelihood that ISPs will abide by open Internet principles by reducing the incentives and ability to violate those principles,⁷⁷⁰ that the Internet community will identify problematic conduct, and that those affected by such conduct will be in a position to make informed competitive choices or seek available remedies for anticompetitive, unfair, or deceptive practices.⁷⁷¹ Transparency thereby “increases the likelihood that harmful practices will not occur in the first place and that, if they do, they will be quickly remedied.”⁷⁷² We apply our transparency rule to broadband Internet access service, as well as functional equivalents or any service that is used to evade the transparency requirements we adopt today.⁷⁷³

a. Content of Required Disclosures

214. We require ISPs to prominently disclose network management practices, performance, and commercial terms of their broadband Internet access service, and find substantial record support (including from ISPs) for following the course set out by the *Open Internet Order*.⁷⁷⁴ We find that the elements of the transparency rule we adopt today help consumers make the most educated decision as to which ISP to choose and keep entrepreneurs and other small businesses effectively informed of ISP practices so that they can develop, market, and maintain Internet offerings. Although we agree with the *Open Internet Order* that “the best approach is to allow flexibility in implementation of the transparency

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not identify which requirements from the 2010 transparency rule it believes could arguably be “onerous.” Further, as discussed above, we find that a transparency requirement is necessary and sufficient to protect Internet openness, given that we lack authority to adopt conduct rules and in addition find that an enforceable transparency rule obviates the need for bright line conduct rules. *See infra* paras. 236-241.

⁷⁶⁹ *Open Internet Order*, 25 FCC Rcd at 17936, para. 53; *see also* Internet Association Comments at 30-31; Apple Reply at 3; *cf.* Entertainment Software Association Comments at 12 (explaining that transparency regarding network management practices allows content provider to make informed decisions when choosing their broadband service); R Street Institute Comments at 28-29 (asserting that the broadband market will function better “if edge providers have clear guidance on how to conform their services to match broadband providers’ traffic management practices”).

⁷⁷⁰ *See, e.g.*, AT&T Comments at 3; Sprint Comments at 13-14.

⁷⁷¹ *Open Internet Order*, 25 FCC Rcd at 17936-37, para. 53; *see also* R Street Institute Comments at 28-29; Free Press Comments at 71 (“Consumer advocates and watchdogs cannot file complaints if they do not have access to information about broadband providers practices.”).

⁷⁷² *Open Internet Order*, 25 FCC Rcd at 17936-37, para. 53.

⁷⁷³ As the Commission explained in the 2010 *Open Internet Order*, “a key factor in determining whether a service is used to evade the scope of the rules is whether the service is used as a substitute for broadband Internet access service. For example, an Internet access service that provides access to a substantial subset of Internet endpoints based on end users’ preference to avoid certain content, applications, or services; Internet access services that allow some uses of the Internet (such as access to the World Wide Web) but not others (such as email); or a ‘Best of the Web’ Internet access service that provides access to 100 top websites could not be used to evade the open Internet rules applicable to ‘broadband Internet access service.’” *2010 Open Internet Order*, 25 FCC Rcd at 17933, para. 47 (citations omitted). We caution ISPs that they may not evade application of the transparency rule “simply by blocking end users’ access to some Internet points.” *Id.*

⁷⁷⁴ *See Open Internet Order*, 25 FCC Rcd at 17938-39, paras. 56-57; *see, e.g.*, ADTRAN Comments at 26-27; AT&T Comments at 11, n.7; Comcast Comments at 58-59; Cox Comments at 26; CTIA Comments at 18, 21; CTIA Reply at 43; T-Mobile Comments at 18; WTA Comments at 11.

rule,”⁷⁷⁵ we describe the specific requirements to guide ISPs and ensure that consumers, entrepreneurs, and other small businesses receive sufficient information to make our rule effective.

215. *Network Management Practices.* In the *Open Internet Order*, the Commission required ISPs to disclose their congestion management, application-specific behavior, device attachment rules, and security practices.⁷⁷⁶ We adopt those same requirements and further require ISPs to disclose any blocking, throttling, affiliated prioritization, or paid prioritization in which they engage. Although requiring disclosure of network management practices imposes some burden on ISPs,⁷⁷⁷ we find the benefits of enabling the public and the Commission to identify any problematic conduct and suggest fixes substantially outweigh those costs. The record generally supports disclosure of ISP network practices.⁷⁷⁸

216. We specifically require all ISPs to disclose:

- *Blocking.* Any practice (other than reasonable network management elsewhere disclosed) that blocks or otherwise prevents end user access to lawful content, applications, service, or non-harmful devices, including a description of what is blocked.
- *Throttling.* Any practice (other than reasonable network management elsewhere disclosed) that degrades or impairs access to lawful Internet traffic on the basis of content, application, service, user, or use of a non-harmful device, including a description of what is throttled.
- *Affiliated Prioritization.* Any practice that directly or indirectly favors some traffic over other traffic, including through use of techniques such as traffic shaping, prioritization, or resource reservation, to benefit an affiliate, including identification of the affiliate.
- *Paid Prioritization.* Any practice that directly or indirectly favors some traffic over other traffic, including through use of techniques such as traffic shaping, prioritization, or resource reservation, in exchange for consideration, monetary or otherwise.⁷⁷⁹
- *Congestion Management.* Descriptions of congestion management practices, if any. These descriptions should include the types of traffic subject to the practices; the purposes served by the practices; the practices’ effects on end users’ experience; criteria used in practices, such as indicators of congestion that trigger a practice, including any usage limits triggering the practice, and the typical frequency of congestion; usage limits and the consequences of exceeding them; and references to engineering standards, where appropriate.⁷⁸⁰
- *Application-Specific Behavior.* Whether and why the ISP blocks or rate-controls

⁷⁷⁵ *Open Internet Order*, 25 FCC Rcd at 17938, para. 56.

⁷⁷⁶ *Id.*

⁷⁷⁷ *See, e.g.*, CTIA Comments at 19.

⁷⁷⁸ *See, e.g.*, ADTRAN Comments at 26-27; American Association of Community Colleges Comments at 18-19; Atty’s General Comments at 21-22; AT&T Comments at 11, n.7; Comcast Comments at 58-59; Cox Comments at 26; CTIA Comments at 18, 21; ESA Comments at 12; Software and Information Industry Alliance Comments at 8-9; Verizon Comments at 19; WISPA Comments at 43; WTA Comments at 11.

⁷⁷⁹ *See, e.g.*, ESA Comments at 12-13 (“To the extent the Commission modifies its rules to permit paid prioritization, any such arrangements or other permitted discriminatory traffic practices must be disclosed along with the broadband provider’s network management practices.”).

⁷⁸⁰ *Open Internet Order*, 25 FCC Rcd at 17938, para. 56; *see also, e.g.*, ESA Comments at 13 (“Broadband providers should also make clear the congestion levels that trigger their traffic management techniques and make available their traffic shaping policies, including what type of traffic is subjected to traffic shaping techniques.”).

specific protocols or protocol ports, modifies protocol fields in ways not prescribed by the protocol standard, or otherwise inhibits or favors certain applications or classes of applications.⁷⁸¹

- *Device Attachment Rules.* Any restrictions on the types of devices and any approval procedures for devices to connect to the network.⁷⁸²
- *Security.* Any practices used to ensure end-user security or security of the network, including types of triggering conditions that cause a mechanism to be invoked (but excluding information that could reasonably be used to circumvent network security).⁷⁸³

We do not mandate disclosure of any other network management practices. Notably, we define “reasonable network management” to mean a practice “appropriate and tailored to achieving a legitimate network management purpose, taking into account the particular network architecture and technology of the broadband Internet access service.”⁷⁸⁴ The record reflects an overwhelming preference for this approach from the *Open Internet Order*, which provides ISPs greater flexibility and certainty.⁷⁸⁵

217. *Performance Characteristics.* In the *Open Internet Order*, the Commission required ISPs to disclose a service description as well as the impact of specialized services (non-broadband Internet access service data services) on performance. We find that the *Open Internet Order*’s performance metric disclosures benefit consumers without placing an undue burden on ISPs.⁷⁸⁶

218. We specifically require all ISPs to disclose:

- *Service Description.* A general description of the service, including the service technology, expected and actual access speed and latency, and the suitability of the

⁷⁸¹ *Open Internet Order*, 25 FCC Rcd at 17938, para. 56.

⁷⁸² *Id.* at 17938-39, para. 56.

⁷⁸³ *Id.* at 17939, para. 56. We expect ISPs to exercise their judgment in deciding whether it is necessary and appropriate to disclose particular security measures. The Commission’s primary concern is those security measures likely to affect a consumer’s ability to access the content, applications, services, and devices of his or her choice. As a result, we do not expect ISPs to disclose internal network security measures that do not directly bear on a consumer’s choices. *2011 Advisory Guidance*, 26 FCC Rcd at 9417-18.

⁷⁸⁴ *Open Internet Order*, 25 FCC Rcd at 17952, para. 82 (acknowledging that legitimate network management includes ensuring network security and integrity, addressing traffic that is unwanted by end users (including by premise operators), and reducing or mitigating the effects of congestion on the network, and that “particular network architecture and technology” refers to the differences across access platforms such as cable, DSL, satellite, and fixed wireless).

⁷⁸⁵ *See, e.g.*, ADTRAN Comments at 26 (“The problem with [the *Title II Order*] definition is that a ‘technical management justification’ is also a ‘business practice,’ because maintaining an efficiently operating network is a business practice. Thus, the rule seems to say that all network management decisions could be excluded from the definition of ‘reasonable’ network management decisions.”); CenturyLink Comments at 35; Nominum Comments at 7-8; Nokia Comments at 17-18; Immarsat Comments at 15 (“The diversity of services that exist today and that are on the horizon, along with the multitudes of communications technologies capable of providing broadband Internet access service, warrant a flexible standard for determining what constitutes ‘reasonable network management’ under any net neutrality rules.”); Gogo Comments at 6; Sprint Comments at 9. *But cf., e.g.*, Letter from Scott Jordan to Marlene Dortch, Secretary, FCC, WC Docket No. 17-108 at 2 (Sept. 11, 2017) (“If reasonable network management is redefined to include practices that are not primarily motivated by a technical network management justification, then the no-blocking and no-throttling rules will be defunct. Such a reversal would allow a broadband Internet access service provider to block or throttle an application simply because it believes doing so would maximize its profit.”).

⁷⁸⁶ *See, e.g.*, ADTRAN Comments at 26-27; Comcast Comments at 58-59; Cox Comments at 26; CTIA Comments at 18, 21; WISPA Comments at 43; CTIA Reply at 43.

service for real-time applications.⁷⁸⁷

- *Impact of Non-Broadband Internet Access Service Data Services.* If applicable, what non-broadband Internet access service data services, if any, are offered to end users, and whether and how any non-broadband Internet access service data services may affect the last-mile capacity available for, and the performance of, broadband Internet access service.⁷⁸⁸

219. *Commercial Terms.* In the *Open Internet Order*, the Commission required ISPs to disclose commercial terms of service, including price, privacy policies, and redress options.⁷⁸⁹ The record in this proceeding supports retaining these disclosures.⁷⁹⁰ These disclosures inform the Commission, consumers, entrepreneurs, and other small businesses about the parameters of the service, without imposing costly burdens on ISPs. We therefore require ISPs to make the following disclosures:

- *Price.* For example, monthly prices, usage-based fees, and fees for early termination or additional network services.⁷⁹¹
- *Privacy Policies.* A complete and accurate disclosure about the ISP's privacy practices, if any. For example, whether any network management practices entail inspection of network traffic, and whether traffic is stored, provided to third parties, or used by the ISP for non-network management purposes.⁷⁹²
- *Redress Options.* Practices for resolving complaints and questions from consumers, entrepreneurs, and other small businesses.⁷⁹³

220. *Eliminating the Title II Order's Additional Reporting Obligations.* Today, we return to a more balanced approach—one that provides sufficient information for the Commission to meet its

⁷⁸⁷ *Open Internet Order*, 25 FCC Rcd at 17939, para. 56. For purposes of satisfying this requirement, fixed ISPs that choose to participate in the Measuring Broadband America (MBA) program may disclose their results as a sufficient representation of the actual performance their customers can expect to experience. Fixed ISPs that do not participate may use the methodology from the MBA program to measure actual performance, or may disclose actual performance based on internal testing, consumer speed test data, or other data regarding network performance, including reliable, relevant data from third-party sources. *2011 Advisory Guidance*, 26 FCC Rcd at 9414-15. Mobile ISPs that have access to reliable information on network performance may disclose the results of their own or third-party testing. Those mobile ISPs that do not have reasonable access to such network performance data may disclose a Typical Speed Range (TSR) representing the range of speeds and latency that can be expected by most of their customers, for each technology/service tier offered, along with a statement that such information is the best approximation available to the broadband provider of the actual speeds and latency experienced by its subscribers. *2011 Advisory Guidance*, 26 FCC Rcd at 9415-16.

⁷⁸⁸ *Open Internet Order*, 25 FCC Rcd at 17939, para. 56.

⁷⁸⁹ *Id.*

⁷⁹⁰ *See, e.g.*, American Association of Law Libraries, et al Comments at 17; Comcast Comments at 53-54; CWA/NAACP Comments at 3-4, 17-18; Free Press Comments at 70-71; WTA Comments at 11; Nominum Reply at 6. *But see* CenturyLink Comments at 34 (raising concerns regarding the additional commercial terms disclosure requirements established in the *Title II Order* in context of concerns regarding all the additional disclosure obligations).

⁷⁹¹ *Open Internet Order*, 25 FCC Rcd at 17939, para. 56.

⁷⁹² *Open Internet Order*, 25 FCC Rcd at 17939, para. 56; *see also* Att'y's General Comments at 21-22 (“[T]ransparency rules ensure that consumers—and regulators—can monitor the data collection and privacy practices of ISPs. Without these protections and without strong disclosure requirements, it would be difficult, if not impossible, for consumers to determine whether their service includes network management policies or other conditions that may interfere with their online use and whether one ISP's policies differ from another ISP.”).

⁷⁹³ *Open Internet Order*, 25 FCC Rcd at 17939, para. 56.

statutory requirements, enables consumers to make informed choices about the purchase and use of broadband Internet access service, and ensures entrepreneurs and other small businesses can develop, market, and maintain Internet offerings, while minimizing costly and unnecessary burdens on ISPs.

221. We eliminate the additional reporting obligations adopted in the *Title II Order* and the related guidance in the *2016 Advisory Guidance* and return to the requirements established in the *Open Internet Order*. We find that these additional reporting obligations unduly burden ISPs without providing a comparable benefit to consumers.⁷⁹⁴ That is especially true for the performance metric, which mandated disclosure of packet loss, geographically-specific disclosures, and disclosure of performance at peak usage times among other things.⁷⁹⁵

222. The record supports the elimination of these additional reporting obligations and our return to the requirements under the *Open Internet Order*.⁷⁹⁶ The record indicates that the additional performance disclosures are among the most burdensome.⁷⁹⁷ CenturyLink estimated that during the two-year period from February 2015 through February 2017, 1,650 hours of employee time were required to comply with the additional reporting obligations, compared to 860 additional hours spent complying with the other transparency requirements of the *Title II Order*.⁷⁹⁸ Disclosure of packet loss, for example, requires providers to conduct additional engineering analysis.⁷⁹⁹ Notably, the Office of Management and Budget (OMB) in the prior Administration declined to approve packet loss when reviewing these additional reporting obligations for mobile ISPs,⁸⁰⁰ suggesting concern that the additional reporting obligations provided little consumer benefit relative to their cost.⁸⁰¹ After all, consumers have little understanding of what packet loss means; what they *do* want to know is whether their Internet access service will support real-time applications, which is the consumer-facing impact of these performance metrics. Although some commenters argue that additional reporting of these esoteric metrics are valuable to some consumers and entrepreneurs, they provide inadequate support for these benefits.⁸⁰² In addition,

⁷⁹⁴ See, e.g., AT&T Comments at 11, n.7; CenturyLink Comments at 34; CTIA Comments at 18; T-Mobile Comments at 21; WTA Comments at 11. As such, we reject commenters' assertions to the contrary. See, e.g., Cogent Comments at 25-26; CWA and NAACP Comments at 17-18; ITIC Comments at 5; TDI et al. Comments at 8.

⁷⁹⁵ See *Title II Order*, 30 FCC Rcd at 5673-74, para. 166.

⁷⁹⁶ See, e.g., AT&T Comments at 11, n.7; CenturyLink Comments at 34-35 (highlighting particular concerns with the disclosure of performance characteristics in the *Title II Order*); Cox Comments at 26; CTIA Comments at 18, 21; CTIA Reply at 2, 43; Frontier Comments at 12; Sprint Comments at 13, 16; T-Mobile Comments at 18; WISPA Comments at 18; WTA Comments at 11.

⁷⁹⁷ See, e.g., AT&T Comments at 11, n.7; CenturyLink Comments at 34; CTIA Comments at 18; T-Mobile Comments at 21; WTA Comments at 11.

⁷⁹⁸ CenturyLink, Declaration of Jeff Glover at 2.

⁷⁹⁹ See, e.g., AT&T Comments at 11, n.7; T-Mobile Comments at 21; WTA Comments at 11.

⁸⁰⁰ See Notice of Office of Management and Budget Action, OMB Control No. 3060-1220 (approved Dec. 15, 2016), available at https://www.reginfo.gov/public/do/PRAViewICR?ref_nbr=201612-3060-012 (stating that “with regard to packet loss: i. the practical utility of packet loss as it relates to mobile performance disclosure; ii. “accurate” methods of calculating mobile packet loss (i.e., drive testing, voluntary app, etc.) iii. whether using voluntary consensus standards would be a viable alternative”); see also Notice of Office of Management and Budget Action, OMB Control No. 3060-1158 (approved Dec. 15, 2016), available at https://www.reginfo.gov/public/do/PRAViewICR?ref_nbr=201608-3060-005; Notice of Office of Management and Budget Action, OMB Control No. 3060-1220 (approved Dec. 15, 2016).

⁸⁰¹ See, e.g., AT&T Comments at 11, n.7; CTIA Comments at 18; Sprint Comments at 16.

⁸⁰² See e.g., Cogent Comments at 25-26 (“This means preserving the requirement that BIAS providers produce performance data on packet loss in addition to speed and latency, and that such data be measured in terms of average performance during peak hours.”); CWA/NAACP Comments at 17-18 (noting that the Commission should maintain

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providing such information imposes significant costs on providers.⁸⁰³ Weighing the additional costs to ISPs against the limited incremental benefits to consumers, entrepreneurs, and small businesses, we conclude that the net benefits of these additional reporting obligations are likely negative. The approach we take today achieves the benefits of transparency at much lower cost than the *Title II Order*.⁸⁰⁴

223. *Small Providers.* Small providers have asked us to maintain the exemption found in the *Small Provider Order* to the extent that any of additional reporting obligations still apply.⁸⁰⁵ Because the requirements we adopt today eliminate all of these additional obligations and do not impose disparately high burdens on small providers, we find an exemption for small providers unnecessary. Further, the requirements are critical to ensuring that consumers have sufficient information to make informed choices in their selection of ISPs and to deter ISPs from secretly erecting barriers to market entry by entrepreneurs and other small businesses. As a result, we decline to provide an exemption for smaller providers at this time.

b. Means and Format of Disclosure

224. *Means of Disclosure.* The Commission relies on broadband Internet access service provider disclosures to identify market-entry barriers for entrepreneurs and small businesses and ensure consumers have the information they need in selecting an ISP. And given the sheer number of ISPs offering service throughout the country—4,559 at last count—we believe the most effective way to monitor for any such barriers is to require the public disclosure of an ISP’s practices so that Commission staff can review them while letting consumers, entrepreneurs, and other small businesses report to the Commission any market-barriers they discover. Accordingly, ISPs must publicly disclose the information required by our transparency rule.

225. We give ISPs two options for disclosure. First, they may include the disclosures on a publicly available, easily accessible website. Consistent with Commission precedent, we expect that ISPs will make disclosures in a manner accessible by people with disabilities.⁸⁰⁶ ISPs doing so need not distribute hard copy versions of the required disclosures and need not file them with the Commission, which can review the disclosures as needed on the ISPs’ websites. For ISPs electing this option, we reaffirm the means of disclosure requirement from the *Open Internet Order* and the clarification found in the *2011 Advisory Guidance*.⁸⁰⁷ Alternatively, ISPs may transmit their disclosures to the Commission,

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the transparency requirements adopted in the *Title II Order*, including the requirement to disclose packet loss); ITIC Comments at 5 (“ITI agrees with the 2010 and 2015 order findings that detailed disclosure of service performance in particular, ‘promotes innovation, investment, end-user choice, and broadband adoption.’”); TDI et al. Comments at 8 (stating that “consumers with disabilities cannot fairly assess whether particular the service will meet their unique needs without detailed information about the performance, limitations, and cost of a particular wired or wireless internet service”).

⁸⁰³ See, e.g., ADTRAN Comments at 26-27; AT&T Comments at 11 n.7; CenturyLink Comments at 35; Comcast Comments at 58-59; Cox Comments at 26; Frontier Comments at 12; Sprint Comments at 13; WISPA Comments at 43; WTA Comments at 11; Alamo Broadband Reply at 2; CTIA Reply at 43; see also *Small Business Exemption from Open Internet Enhanced Transparency Requirements Order*, 32 FCC Rcd 1772, 1774, para. 6 (2017) (“[T]here is substantial evidence that smaller providers—which can serve as vital sources of broadband throughout the country—would face real disincentives to deploying, maintaining, or upgrading that broadband infrastructure in light of the initial costs associated with the enhanced requirements.”).

⁸⁰⁴ See *infra* paras. 309-311.

⁸⁰⁵ See ACA Comments at 76; WISPA Comments at 42-43.

⁸⁰⁶ See *Open Internet Order*, 25 FCC Rcd at 17940, n.186.

⁸⁰⁷ See *Open Internet Order*, 25 FCC Rcd at 17939-40, paras. 57-58 (requiring that ISPs, at a minimum, “prominently display or provide links to disclosures on a publicly available, easily accessible website that is available to current and prospective end users and edge providers as well as to the Commission, and must disclose relevant information at the point of sale” and noting that providers “may be able to satisfy the transparency rule

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and we will make them available on a publicly available, easily accessible website.⁸⁰⁸ By offering these two options, we allow ISPs (and especially smaller ISPs) the ability to choose the least burdensome method of disclosure that will nonetheless ensure that Commission staff, consumers, entrepreneurs, and other small businesses have access to the information they need in carrying out our obligation to identify market-entry barriers.

226. We also eliminate the direct notification requirement adopted in the *Title II Order*.⁸⁰⁹ We find the direct notification requirement unduly burdensome to ISPs and unnecessary in light of the other forms of public disclosure required. In contrast, we find that the disclosures adopted in the *Open Internet Order* and *2011 Advisory Guidance* appropriately balance making information easy to reach and the costs of disclosure for ISPs.

227. *Format of Disclosure.* We eliminate the consumer broadband label safe harbor for form and format of disclosures adopted in the *Title II Order*.⁸¹⁰ Adopting the label could require some ISPs to expend substantial resources to tailor their disclosures to fit the format.⁸¹¹ And limited adoption, caused by the potentially high burdens associated with adapting disclosures to a particular format, significantly reduces the value of the uniform format. Moreover, mandating such a format would increase the burden for those ISPs required to revise their existing disclosure to conform to the mandated format. We find that requiring all ISPs to disclose the same information, regardless of format, will allow for comparability between offerings, and enable the Commission to meet its statutory reporting requirements.

3. Authority for the Transparency Rule

228. Just as the Commission did in the *Open Internet Order*,⁸¹² we rely on section 257 of the Communications Act as authority for the transparency requirements we retain. Section 257(a) directs the Commission to “identify[] and eliminat[e] . . . market entry barriers for entrepreneurs and other small businesses in the provision and ownership of telecommunications services and information services, or in the provision of parts or services to providers of telecommunications services and information services.”⁸¹³ Section 257(a) set a deadline of 15 months from the enactment of the 1996 Act for the Commission’s initial effort in that regard, and section 257(c) directs the Commission, triennially thereafter, to report to Congress on such marketplace barriers and how they have been addressed by regulation or could be addressed by recommended statutory changes.⁸¹⁴ Consistent with the Commission’s longstanding view, section 257(c) is properly understood as imposing a continuing obligation on the agency to identify barriers described in section 257(a) that may emerge in the future,

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through a single disclosure”); *2011 Advisory Guidance*, 26 FCC Rcd at 9413-14 (clarifying that the *Open Internet Order* did not require providers to distribute hard copy materials or to provide extensive training to sales employees in delivering these disclosures).

⁸⁰⁸ We direct the Consumer and Governmental Affairs Bureau, in coordination with the Wireline Competition Bureau, to issue a Public Notice explaining how ISPs can exercise this option. We note also note that ISPs that do not transmit their disclosures to the FCC will be deemed as having elected the first option (and may later elect that option despite prior transmittal by informing the Commission in a manner specified in the aforementioned Public Notice).

⁸⁰⁹ See *Title II Order*, 30 FCC Rcd at 5677, para. 171 (adding a requirement to directly notify end users “if their individual use of a network will trigger a network practice, based on their demand prior to a period of congestion, that is likely to have a significant impact on the end user’s use of the service”).

⁸¹⁰ See *Title II Order*, 30 FCC Rcd at 5680-81, paras. 179-81.

⁸¹¹ See, e.g., Frontier Comments at 12.

⁸¹² See, e.g., *Open Internet Order*, 25 FCC Rcd at 17980-81, para. 136 & n.444.

⁸¹³ 47 U.S.C. § 257(a).

⁸¹⁴ 47 U.S.C. § 257(c).

rather than limited to those identified in the original section 257(a) proceeding.⁸¹⁵ Because sections 257(a) and (c) clearly anticipate that the Commission and Congress would take steps to help eliminate previously-identified marketplace barriers, limiting the triennial reports only to those barriers identified in the original section 257(a) proceeding could make such reports of little to no ongoing value over time. We thus find it far more reasonable to interpret section 257(c) as contemplating that the Commission will perform an ongoing market review to identify any new barriers to entry, and that the statutory duty to “identify and eliminate” implicitly empowers the Commission to require disclosures from those third parties who possess the information necessary for the Commission and Congress to find and remedy market entry barriers.⁸¹⁶

229. Our disclosure requirements will help us both identify and address potential market entry barriers in the provision and ownership of information services and the provision of parts and services to information service providers. In particular, some Internet applications and services previously have been found to be information services,⁸¹⁷ and, more generally, entrepreneurs and small businesses participating in the Internet marketplace could be seeking to act as either providers of information services or providers of parts and services to information services (or both). The language of section 257(a) appears reasonably read to encompass those entrepreneurs’ and small businesses’ services under one or more of the covered categories, and there is no dispute in the record in that regard.⁸¹⁸ In addition, the manner in which an ISP provides broadband Internet access service, including but not limited to its network management practices, can affect how well particular Internet applications or services of entrepreneurs and small businesses perform when used by that ISP’s subscribers.⁸¹⁹ Aspects of the performance of broadband

⁸¹⁵ This is consistent with the Commission’s historical understanding of this provision. *See, e.g., Technology Transitions et al.*, Order, Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative, 29 FCC Rcd 1433, 1460, para. 77& n.30 (2014) (describing section 257 as “mandating ongoing review to identify and eliminate ‘market entry barriers for entrepreneurs and other small businesses in the provision and ownership of telecommunications services and information services, or in the provision of parts or services to providers of telecommunications services and information services,’”); *Preserving the Open Internet; Broadband Industry Practices*, Notice of Proposed Rulemaking, 24 FCC Rcd 13064, 13084-85, para. 51 & n.114 (2009) (same); *Comcast-BitTorrent Order*, 23 FCC Rcd at 13040, para. 20 (similar).

⁸¹⁶ *See* 47 U.S.C. § 257. Although Section 257 does not specify precisely how the Commission should obtain and analyze information for purposes of its reports to Congress, we construe the statutory mandate to “identify” the presence of market barriers as including within it direct authority to collect evidence to prove that such barriers exist. *See, e.g.,* Black’s Law Dictionary (10th ed. 2014) (defining “identify” as “[t]o prove the identity of (a person or thing)”). While this direct authority suffices to support the Commission’s adoption of the transparency rule, sections 4, 201(b), and 303(r) of the Act also give us rulemaking authority to implement the Act, including the provisions we rely on as authority for our transparency requirements. 47 U.S.C. §§ 154, 201(b), 303(r). In his partial concurrence and partial dissent in *Verizon*, Judge Silberman stated with respect to the transparency rule that “[t]he Commission is required to make triennial reports to Congress on ‘market entry barriers’ in information service, 47 U.S.C. § 257, and requiring disclosure of network management practices appears to be reasonably ancillary to that duty.” *Verizon*, 740 F.3d at 668, n.9 (Silberman, S.J., dissenting); *see also* CenturyLink Comments at 54 (arguing that the prerequisites for authority ancillary to section 257 likely are satisfied for a transparency rule).

⁸¹⁷ *See, e.g., Title II Order*, 30 FCC Rcd at 5740-41, para. 323 (describing applications “that enable access to email and the ability to establish home pages” as information services); *id.* at 5757-58, para. 356 (describing email and online storage as information services); *id.* at 5773, paras. 376-77 (describing email, cloud-based storage, and spam protection as information services).

⁸¹⁸ Because we find that Internet entrepreneurs and small businesses that depend on their customers using broadband Internet access service are covered by section 257(a) in any case, we need not and do not address with greater specificity the specific category or categories into which particular edge services fall.

⁸¹⁹ *See, e.g., Business Data Services In An Internet Protocol Environment et al.*, Report and Order, 32 FCC Rcd 3459, 3470, para. 23 (2017) (“The routing and reassembling of data packets . . . can lead to packet loss, jitter, and latency, affecting the quality of service needed to support certain applications desired by users, e.g., real-time and

(continued....)

Internet access services, particularly if undisclosed, thus could constitute barriers within the scope of section 257(a) in the future,⁸²⁰ depending on how the marketplace evolves, regardless of whether or not particular practices do so today. For example, if ISPs do not disclose key details of how they provide broadband Internet access service, that could leave entrepreneurs and small businesses participating in the Internet marketplace unable to determine how well particular existing or contemplated offerings are likely to perform for users, and thus unable to determine if their service will be usable to a sufficient number of potential customers to make the offering viable. Such undisclosed practices also can leave consumers unable to judge which broadband Internet access service offerings will best meet their needs given the applications and service they wish to use. As a result, even if a sufficient number of consumers theoretically are accessible by a broadband Internet access service offering with sufficient technical characteristics to make a given Internet application or service viable, an entrepreneur's or small business's entry into the market for that service could be undermined if consumers are unable to identify which of the various broadband Internet access services offerings has the required technical characteristics. By contrast, the record reveals that the disclosure of practices and service characteristics we require today helps entrepreneurs and small businesses understand how well particular Internet application or service offerings are likely to work with particular ISPs' broadband Internet access services and helps consumers make the most educated choice among ISPs and particular broadband Internet access service offerings, especially if they have particular interests in using Internet applications or services that are highly dependent on broadband Internet access service performance.⁸²¹ The disclosures themselves thus are likely to reduce any potential risk of particular practices being such a barrier—had they not been publicly disclosed—and also enable us to recommend to Congress any legislative changes that we might find warranted based on our analysis of these practices.⁸²² Thus, we continue to believe that section 257 provides us authority for the rule we adopt, and there are no objections in the record to relying on that source of authority again here.

230. As in the *Open Internet Order*, we also find that the disclosure requirements we adopt here advance our duties under section 218 and Title III of the Act to promote technological development and innovation.⁸²³ In particular, section 218 of the Act provides additional authority for our transparency

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mission critical applications.”); AT&T Comments at 5, 36, 38 (discussing “latency-sensitive applications” such as “autonomous cars, remote surgery,” “high-definition videoconferencing or massively multiplayer online gaming,” and “VoIP or video”); Comcast Comments at 56; Cisco Reply at 7-8.

⁸²⁰ Cf., e.g., Nominum Reply at 6 (“[E]ffective disclosure of ISP’ network management practices, performance, and commercial terms of service promotes competition, innovation, investment, end-user choice and broadband adoption.”); Apple Reply at 3 (“[O]nline providers need clear information about the management and performance of residential broadband services to understand that their services will be delivered to their customers as intended.”).

⁸²¹ See, e.g., Comcast Comments at 53-54; Software and Information Industry Association Reply at 7; Atty’s General Comments at 21-22; Internet Ass’n Comments at 30-31.

⁸²² 47 U.S.C. § 257(c) (specifying that the reports to Congress under section 257(c) should identify any statutory changes needed to eliminate barriers).

⁸²³ The *Open Internet Order* cited sections 4(k), 257, and 218 of the Act as provisions specifically supporting its disclosure requirements. *Open Internet Order*, 25 FCC Rcd at 17980-81, paras. 136-37. We rely on both section 257 and section 218 here, but do not rely on section 4(k) because that statutory reporting requirement was eliminated. See Pub. L. No. 104-66, Title III, § 3003, 109 Stat. 707, 734 (Dec. 21, 1995). The *Open Internet Order* also relied on its Title III licensing authority for disclosure rules for mobile ISPs. *Open Internet Order*, 25 FCC Rcd at 17979, para. 134. We likewise rely on Title III licensing authority for our disclosure rule here. As with section 257, commenters do not dispute that our disclosure requirements advance the objectives of section 218 and the relevant Title III provisions. Insofar as the *Open Internet Order* cited other authority as supporting all its rules—implicitly encompassing the disclosure requirements as well as conduct rules—we do not rely on those additional claims of authority given our concerns about the merits of those theories on the record here, as discussed below. See *infra* Part IV.B.3.

rule insofar as the rule applies to ISPs that otherwise are common carriers (by virtue of other services they offer) or are directly or indirectly owned by or affiliated with carriers.⁸²⁴ Section 218 authorizes disclosure requirements for such entities to encourage the “benefits of new inventions and developments [to] be made available to the people of the United States,”⁸²⁵ and “to perform the duties and carry out the objects for which [the Commission] was created.”⁸²⁶ Likewise, as in the past,⁸²⁷ we conclude that the transparency rule for wireless ISPs advances the public interest, convenience, and necessity under Title III.⁸²⁸ In particular, Title III directs the Commission to promote “the development and rapid deployment of new technologies, products, and services,” and help “ensur[e] that new and innovative technologies are readily accessible to the American people.”⁸²⁹ Our transparency requirement will further these statutory objectives of promoting technological development and innovation in several ways. By eliminating market entry barriers in the provision and ownership of information services and the provision of parts and services to information service providers, we help bring the benefits of new inventions and developments to the public. In addition, we conclude that the oversight over ISPs’ practices that the Commission, FTC, and other antitrust and consumer protection authorities can exercise as a result of the transparency rule likewise will promote innovation and competition, spreading the benefits of technological development to the American people broadly.⁸³⁰

231. *The Transparency Requirements Are Consistent With the First Amendment.* We conclude that the transparency requirements represent permissible regulation of commercial speech.⁸³¹ The

⁸²⁴ See, e.g., *Open Internet Order*, 25 FCC Rcd at 17981, para. 137.

⁸²⁵ 47 U.S.C. § 218.

⁸²⁶ *Id.* This includes not only duties specified earlier in section 218 itself but also other duties. See, e.g., 47 U.S.C. § 151; *id.* § 257; *id.*, § 1302(b).

⁸²⁷ See, e.g., *Title II Order*, 30 FCC Rcd at 5725, para. 285 (citing 47 U.S.C. §§ 301, 303, 304, 307, 309, 316); *Open Internet Order*, 25 FCC Rcd at 17978-79, para. 133 (citing 47 U.S.C. §§ 301, 304, 307, 309, 316).

⁸²⁸ Although a transparency rule requiring disclosure of aspects of broadband Internet access service offerings does not directly govern the technical aspects of mobile broadband Internet access service, there is precedent that “[t]he Act itself establishes that the Commission’s [Title III] powers are not limited to the engineering and technical aspects of radio communication.” *Nat’l Broad. Co. v. United States*, 319 U.S. 190, 215 (1943) (upholding FCC regulations limiting competitively restrictive chain broadcasting practices). However, we make clear that in the event our authority under section 257 to adopt today’s transparency rule is not upheld, we do not intend for the transparency rule adopted today to apply only to mobile ISPs under our Title III licensing authority.

⁸²⁹ 47 U.S.C. § 309(j)(3)(A), (B).

⁸³⁰ In addition, sections 4, 201(b), and 303(r) of the Act give us rulemaking authority to implement the Act, including the provisions we rely on as authority for our transparency requirements. 47 U.S.C. §§ 154, 201(b), 303(r).

⁸³¹ The Commission previously has analyzed the transparency requirements as regulation of commercial speech, see, e.g., *Title II Order*, 30 FCC Rcd at 5873-75, paras. 559-63, and there are no arguments in the record here contending that it is noncommercial speech. In addition, even in cases where courts have found somewhat less than “a clear fit between the commercial speech doctrine and the” regulated speech, they have recognized that within an agency’s regulated “field of economic activity, communication of the regulated parties often bears directly on the particular economic objectives sought by the government” and courts have applied “limited First Amendment scrutiny.” *SEC v. Wall Street Pub. Institute, Inc.*, 851 F.2d 365, 372, 373 (D.C. Cir. 1988); see also, e.g., *Pharm. Care Mgmt. Ass’n v. Rowe*, 429 F.3d 294, 316 (1st Cir. 2005) (“What is at stake here . . . is simply routine disclosure of economically significant information designed to forward ordinary regulatory purposes—in this case, protecting covered entities from questionable PBM business practices. There are literally thousands of similar regulations on the books—such as product labeling laws, environmental spill reporting, accident reports by common carriers, SEC reporting as to corporate losses and (most obviously) the requirement to file tax returns to government units who use the information to the obvious disadvantage of the taxpayer. The idea that these thousands of routine regulations require an extensive First Amendment analysis is mistaken.”).

ultimate effect of the required disclosures is to ensure that key details regarding service characteristics, rates, and terms of broadband Internet access service offerings are available to potential customers before they make their purchasing decisions. As stated above, ISPs have two options for complying with the transparency requirements. One is to make the disclosures on a publicly available, easily accessible website. Alternatively, ISPs can elect to simply provide that information to the Commission, which will then itself make the information publicly available. The *Title II Order* evaluated the transparency rule at issue there under *Zauderer v. Office of Disciplinary Counsel of Supreme Court of Ohio*,⁸³² and there is some record support for applying that framework.⁸³³ We recognize that there remains some debate regarding the application of *Zauderer*, as opposed to the *Central Hudson* framework that generally governs First Amendment review of commercial speech regulation.⁸³⁴ We need not resolve that here, because we find that our rule would withstand scrutiny even under *Central Hudson*. In particular, our transparency rule directly advances substantial government interests and is no more extensive than necessary.⁸³⁵

232. The transparency requirements we retain directly advance substantial government interests in encouraging competition and innovation. The Act itself reveals the significance of these interests.⁸³⁶ In section 257 of the Act, Congress specifically directed the Commission to identify market entry barriers in the provision of information services and their inputs, eliminating them where possible, and reporting to Congress on the need for any statutory changes required to address such barriers.⁸³⁷ In carrying out our responsibilities under section 257, Congress directed us to advance, among other things, “vigorous economic competition” and “technological advancement.”⁸³⁸ Section 218 of the Act similarly directs the Commission to obtain information about “technical developments and improvements in wire and radio communication” in order to help ensure that the “benefits of new inventions and developments may be made available to the people of the United States.”⁸³⁹ Likewise, in exercising our licensing authority under Title III, the Commission is directed, among other things, to promote “the development

⁸³² *Zauderer v. Office of Disciplinary Counsel*, 471 U.S. 626 (1985) (*Zauderer*).

⁸³³ *Title II Order*, 30 FCC Rcd at 5873-75, paras. 559-63; Geoffrey A. Manne *et al.*, *A Conflict of Visions: How the “21st Century First Amendment” Violates the Constitution’s First Amendment*, 13 FIRST AMEND. L. REV. 319, 335 (2015), cited in R Street Comments at 19 n.68.

⁸³⁴ See, e.g., *Nat’l Ass’n of Mfrs. v. SEC*, 800 F.3d 518 (D.C. Cir. 2015).

⁸³⁵ *Central Hudson Gas & Elec. Corp. v. Pub. Serv. Comm’n*, 447 U.S. 557, 563-64 (1980) (*Central Hudson*).

⁸³⁶ Such interests are similar to those recognized as substantial by courts, as well. See, e.g., *Prometheus Radio Project v. FCC*, 652 F.3d 431, 465 (3d Cir. 2011) (“We agree with the FCC that the rules do not violate the First Amendment because they are rationally related to substantial government interests in promoting competition and protecting viewpoint diversity.”); *DISH Network Corp. v. FCC*, 653 F.3d 771, 780 (9th Cir. 2011) (“The Supreme Court has recognized that “[T]he Government’s interest in eliminating restraints on fair competition is always substantial, even when the individuals or entities subject to particular regulations are engaged in expressive activity protected by the First Amendment.” (quoting *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 664 (1994) (*Turner I*))); *Satellite Broad. & Commc’ns Ass’n v. FCC*, 275 F.3d 337, 364 (4th Cir. 2001) (“This interest in preserving a level playing field in local broadcast advertising markets seems to us at least as significant as many interests which the Supreme Court has found to be important or substantial.”); *U.S. West, Inc. v. FCC*, 182 F.3d 1224, 1234, 1236 (10th Cir. 1999) (“[P]romoting competition . . . may constitute [a] legitimate and substantial interest[],” although there the court was “not satisfied that the interest in promoting competition was a significant consideration in the enactment of § 222,” which the Commission was implementing.).

⁸³⁷ 47 U.S.C. § 257(a), (c).

⁸³⁸ 47 U.S.C. § 257(b).

⁸³⁹ 47 U.S.C. § 218.

and rapid deployment of new technologies, products, and services,” and “ensur[e] that new and innovative technologies are readily accessible to the American people.”⁸⁴⁰

233. The disclosure of information regarding broadband Internet access service characteristics, rates, and terms directly advance those statutory directives.⁸⁴¹ Broadband Internet access service subscribers will be able to use the disclosed information to evaluate broadband Internet access service offerings and determine which offering will best enable the use of the applications and service they desire. This helps guard against the potential barrier to entry and deterrent to technological advancement that otherwise could be faced by entrepreneurs’ and small business’ innovative Internet applications and service offerings, which may be dependent on the technical characteristics of broadband Internet access service. The information disclosed by ISPs also is relevant to Internet application and service providers’ purchase of services from those ISPs. The record reveals evidence that a number of the Internet applications and services that might be particularly sensitive to the manner in which an ISP provides broadband Internet access service potentially could benefit from the freedom this order provides for providers of such services and ISPs to enter prioritization arrangements to better ensure the performance of those Internet applications and services.⁸⁴² Thus, the disclosures enable entrepreneurs, small businesses, and other participants in the Internet marketplace to evaluate how well their offerings will perform by default relative to the prioritization services that ISPs offer them. Enabling Internet application and service providers to evaluate their options in this way helps reduce barriers to entry that otherwise could exist and encourages entrepreneurs’ and small businesses’ ability to compete and develop and advance innovating offerings in furtherance of our statutory objectives. In addition to those considerations, as the Commission has recognized, disclosures help ensure accountability by ISPs and the potential for quick remedies if problematic practices occur.⁸⁴³ The disclosures also provide the Commission the information it needs for the evaluation required by section 257 of the Act, enabling us to spur regulatory action or seek legislative changes as needed. The transparency rule we retain thus directly advances the substantial government interests identified in section 257, section 218, and Title III of the Act.

234. The transparency requirements also are no more extensive than necessary. The disclosures covered by our transparency rule are tied to our duties under section 257, section 218, and Title III of the Communications Act. We also observe in this regard that the most significant concerns were raised with respect to the additional reporting obligations adopted in the *Title II Order* and here we eliminate those requirements in favor of a rule consistent in scope with the 2010 transparency rule.⁸⁴⁴ In addition, an ISP’s direct public disclosure of the information encompassed by the transparency rule is just one option; it may instead submit the information to the Commission, which would then make public.⁸⁴⁵

⁸⁴⁰ 47 U.S.C. § 309(j)(3)(A), (B).

⁸⁴¹ We thus disagree with arguments that there is insufficient justification for our transparency requirements to withstand First Amendment scrutiny. *See, e.g.*, CenturyLink Comments at 44-46 (“Mandated information-disclosure requirements are, therefore, unconstitutional in the absence a documented governmental justification.”). Moreover, commenters do not cite precedent demonstrating that only “systematic or enduring problem[s]” can provide the basis for requirements that withstand First Amendment scrutiny. *See id.* at 45.

⁸⁴² *See, e.g.*, AT&T Comments at 5, 36, 38; Comcast Comments at 56 (discussing applications sensitive to performance such as “telepresence service tailored for the hearing impaired” and “telemedicine”); Cisco Reply at 7-8.

⁸⁴³ *2010 Open Internet Order*, 25 FCC Rcd at 17936-37, para. 53.

⁸⁴⁴ *See, e.g.*, CenturyLink Comments at 44-45 (arguing that the additional reporting requirements would not survive First Amendment scrutiny while also stating that “even, potentially, some of the more onerous aspects of the disclosure requirements adopted in the 2010 Open Internet Order” might not survive such scrutiny, though without specifying the particular elements of the 2010 rules that would be of concern, or why).

We thus conclude that the transparency requirements are appropriately tailored to the Congressionally-recognized goals that we seek to advance.

B. Bright-Line and General Conduct Rules

235. We eliminate the conduct rules adopted in the *Title II Order*—including the general conduct rule and the prohibitions on paid prioritization, blocking, and throttling. We do so for three reasons. First, the transparency rule we adopt, in combination with the state of broadband Internet access service competition and the antitrust and consumer protection laws, obviates the need for conduct rules by achieving comparable benefits at lower cost. Second, scrutinizing closely each prior conduct rule, we find that the costs of each rule outweigh its benefits. Third, the record does not identify any legal authority to adopt conduct rules for all ISPs, and we decline to distort the market with a patchwork of non-uniform, limited-purpose rules.

1. Transparency Leads to Openness

236. Transparency, competition, antitrust, and consumer protection laws achieve similar benefits as conduct rules at lower cost. The effect of the transparency rule we adopt is that ISP practices that involve blocking, throttling, and other behavior that may give rise to openness concerns will be disclosed to the Commission and the public.⁸⁴⁶ As the Commission found in the *Open Internet Order*, “disclosure increases the likelihood that broadband providers will abide by open Internet principles, and that the Internet community will identify problematic conduct and suggest fixes . . . thereby increas[ing] the chances that harmful practices will not occur in the first place and that, if they do, they will be quickly remedied.”⁸⁴⁷ The transparency rule will also assist “third-party experts such as independent engineers and consumer watchdogs to monitor and evaluate network management practices.”⁸⁴⁸

237. History demonstrates that public attention, not heavy-handed Commission regulation, has been most effective in deterring ISP threats to openness and bringing about resolution of the rare incidents that arise. The Commission has had transparency requirements in place since 2010, and there have been very few incidents in the United States since then that plausibly raise openness concerns.⁸⁴⁹ It is telling that the two most-discussed incidents that purportedly demonstrate the need for conduct rules, concerning Madison River and Comcast/BitTorrent, occurred before the Commission had in place an enforceable transparency rule. And it was the disclosure, through complaints to the Commission and media reports of the conduct at issue in those incidents, that led to action against the challenged conduct.

238. As public access to information on ISP practices has increased, there has been a shift toward ISPs resolving openness issues themselves with less and less need for Commission intervention. In 2005, the Enforcement Bureau entered into a consent decree to resolve the allegations against *Madison River*.⁸⁵⁰ In 2008, Comcast reached a settlement with BitTorrent months before the Commission issued *Comcast-BitTorrent*.⁸⁵¹ By 2012, with a transparency rule in place, AT&T reversed its blocking of access

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⁸⁴⁵ Cf. *Riley v. National Fed’n of the Blind of N.C., Inc.*, 487 U.S. 781, 800 (1988) (in contrast to the state’s requirement that professional fundraisers make certain disclosures in solicitations, as a “more benign and narrowly tailored option[] . . . the State may itself publish the detailed financial disclosure forms it requires professional fundraisers to file”).

⁸⁴⁶ See *supra* Part IV.A.

⁸⁴⁷ *Open Internet Order*, 25 FCC Rcd at 17936-37, para. 53.

⁸⁴⁸ *Id.* at 17941, para. 60.

⁸⁴⁹ See *supra* Part III.C.2.

⁸⁵⁰ *Madison River Order*, 20 FCC Rcd at 4295.

⁸⁵¹ See David Kirkpatrick, *Comcast-BitTorrent: The Net’s Finally Growing Up* (Mar. 28, 2008), <http://archive.fortune.com/2008/03/27/technology/comcast.fortune/index.htm>; *Comcast-BitTorrent Order*, 23 FCC

to FaceTime over its cellular network on certain data plans of its own accord within approximately three months.⁸⁵² This trend toward swift ISP self-resolution comes, admittedly, from only a few data points because, with transparency in place, almost no incidents of harm to Internet openness have arisen,⁸⁵³ suggesting that ISPs are “resolving” issues by not letting them occur in the first place.

239. We think the disinfectant of public scrutiny and market pressure, not the threat of heavy-handed Commission regulation, best explain the paucity of issues and their increasingly fast ISP-driven resolution.⁸⁵⁴ Since the Commission adopted a transparency rule in the *Open Internet Order*, conduct requirements have varied substantially, from the rules adopted in the *Open Internet Order*, to no conduct rules after the *Verizon* court case, to the rules adopted in the *Title II Order*. Yet through all that time, the Commission released only one Notice of Apparent Liability, against AT&T for allegedly violating the transparency rule.⁸⁵⁵ The dearth of actions enforcing conduct rules is striking. Further, the *Title II Order* and *Open Internet Order* do not, and could not, claim an epidemic or even uptick of blocking or degradation of traffic in the wake of the *Comcast* or *Verizon* court decisions vacating the Commission’s prior attempts at openness regulation.⁸⁵⁶ These time periods provide a natural experiment disproving the notion that conduct rules are necessary to promote openness.

240. Although we think transparency promotes openness and empowers consumers, we recognize that regulation has an important role to play as a backstop where genuine harm is possible. In particular, transparency amplifies the power of antitrust law and the FTC Act to deter and where needed remedy behavior that harms consumers. While some commenters assert that proof is difficult in antitrust proceedings,⁸⁵⁷ our transparency rule requires ISPs to outline their business practices and service offerings forthrightly and honestly. This requirement both deters ISPs from engaging in anticompetitive, unfair, or deceptive conduct and gives consumers and regulators the tools they need to take action in the face of such behavior. Many ISPs have committed to abide by open Internet principles.⁸⁵⁸ By restoring authority to the FTC to take action against deceptive ISP conduct, reclassification empowers the expert consumer

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Rcd at 13091 (Dissenting Statement of Comm’r McDowell) (stating that Comcast and BitTorrent “settled their differences ‘out of court’”).

⁸⁵² See Open Internet Advisory Committee Federal Communications Commission, AT&T/FaceTime Case Study at 2 (Aug. 20, 2013) (AT&T/FaceTime Case Study), <https://transition.fcc.gov/cgb/oia/Mobile-Broadband-FaceTime.pdf> (providing timeline of events); Bob Quinn, AT&T Senior Executive Vice President of External & Legislative Affairs, Enabling FaceTime Over Our Mobile Broadband Network (Aug. 22, 2012), <https://www.attpublicpolicy.com/fcc/enabling-facetime-over-our-mobile-broadband-network/> (AT&T Aug. 2012 Post) (“Our policies regarding FaceTime will be fully transparent to all consumers, and no one has argued to the contrary. There is no transparency issue here.”).

⁸⁵³ See *supra* Part III.C.2.

⁸⁵⁴ We thus reject arguments to the contrary. See, e.g., EFF Comments at 6 (“[T]he threat of regulation has kept service providers honest.”).

⁸⁵⁵ See AT&T Mobility, Notice of Apparent Liability for Forfeiture and Order, 30 FCC Rcd 6613 (2015). AT&T contends that it did not violate the Commission’s rules. See, e.g., Margaret Harding McGill, Law360, AT&T Calls FCC’s Proposed \$100M Fine Irresponsible, Unfair (July 27, 2015), <https://www.law360.com/articles/684070/at-t-calls-fcc-s-proposed-100m-fine-irresponsible-unfair>.

⁸⁵⁶ Cf. *2014 Notice*, 29 FCC Rcd at 5563, para. 3 (“Today, there are no legally enforceable rules by which the Commission can stop broadband providers from limiting Internet openness.”).

⁸⁵⁷ See, e.g., Akamai Comments at 8-9 (“Broadband provider practices favoring affiliates are unlikely to manifest in the type of demonstrable price hikes or output effects that are most common predicates to successful antitrust challenges.”).

⁸⁵⁸ See *supra* Part III.C.2 (collecting examples).

protection agency to exercise the authority granted to them by Congress if ISPs fail to live up to their word and thereby harm consumers.⁸⁵⁹

241. Transparency thus leads to openness and achieves comparable benefits to conduct rules. Moreover, the costs of compliance with a transparency rule are much lower than the costs of compliance with conduct rules.⁸⁶⁰ We therefore decline to impose this additional cost given our view that transparency drives a free and open Internet, and in light of the FTC's and DOJ's authority to address any potential harms. To the extent that conduct rules lead to any additional marginal deterrence, we deem the substantial costs—including costs to consumers in terms of lost innovation as well as monetary costs to ISPs⁸⁶¹—not worth the possible benefits.

2. Costs of Conduct Rules Outweigh Benefits

a. General Conduct Rule

242. We find that the vague Internet Conduct Standard⁸⁶² is not in the public interest.⁸⁶³ Following adoption of this *Order*, the FTC will vigorously protect consumers and competition through its consumer protection and antitrust authorities. Given this, we see little incremental benefit and significant cost to retaining the Internet Conduct Standard. The rule has created uncertainty and likely denied or delayed consumer access to innovative new services, and we believe the net benefit of the Internet Conduct Standard is negative.⁸⁶⁴

243. Based on our experience with the rule and the extensive record, we are persuaded that the Internet Conduct Standard is vague and has created regulatory uncertainty in the marketplace hindering investment and innovation. Because the Internet Conduct Standard is vague, the standard and its implementing factors do not provide carriers with adequate notice of what they are and are not permitted to do, i.e., the standard does not afford parties a “good process for determining what conduct has actually been forbidden.”⁸⁶⁵ The rule simply warns carriers to behave in accordance with what the Commission

⁸⁵⁹ See Olhausen Comments at 11; FTC Staff Comments at 22-23.

⁸⁶⁰ See ACA Comments at v (“ACA agrees with the NPRM’s observation that disclosure requirements can be among the least intrusive of regulatory measures at the Commission’s disposal.”); Comcast Comments at 53-54 (asserting that transparency requirements “are less intrusive than other forms of regulation”); *infra* Part IV.B.2.

⁸⁶¹ See *infra* Part IV.B.2.

⁸⁶² In the *Title II Order*, the Commission created a catch-all standard intended to prohibit “current or future practices that cause the type of harms [the Commission’s] rules are intended to address.” *Title II Order*, 30 FCC Rcd at 5659, para. 135. This standard allows the Commission to prohibit practices that it determines unreasonably interfere with or unreasonably disadvantage the ability of consumers to reach the Internet content, services, and applications of their choosing or of online content, applications, and service providers to access consumers. *Id.*

⁸⁶³ As such, we find commenters urging the Commission to retain this standard, even with modifications, unpersuasive. See, e.g., Consumers Union Comments at 2, 11; Harold Hallikainen Comments at 12; Home Telephone Company Comments at 20; Entertainment Software Association Comments at 9; EFF Comments at 28-29; Free Press at 65-66; Greenling Institute Comments at 13; INCOMPAS Comments at 72; Independent Film & TV Alliance Comments at 5; Microsoft Comments at 16; National Association of Realtors Comments at 1; Thomas Preston Comments at 2; Vimeo Comments at 2, 17; AARP Reply at 9; City and County of San Francisco Reply at 4; ESA Reply at 5; Internet Association Reply at 22-24; United Nations Special Rapporteur Reply at 7 (“While it is arguable that the Internet Conduct Standard should be tightened or clarified, we are concerned that its wholesale repeal will remove a critical safeguard of net neutrality and, by extension, the freedom of expression of end users.”).

⁸⁶⁴ *Infra* paras. 314-316.

⁸⁶⁵ ADTRAN Comments at 23-24; see also, e.g., ACA Comments at 59-60, 62; AT&T Comments at 50-51; CACW Comments at 8 (July 14, 2017); Cause of Action Comments at 2; CenturyLink Comments at 32; Cox Comments at 31; Daniel Oglesby at 3; Free State Foundation Comments at 56; Sprint Comments at 6; Verizon Comments, Attachment, Andres V. Lerner and Janusz A. Ordover, *An Economic Analysis of Title II Regulation of Broadband Internet Access Providers* at 9. But see Internet Association Comments at 30 (asserting the Internet Conduct

(continued....)

might require, without articulating any actual standard.⁸⁶⁶ Even ISP practices based on consumer choice are not presumptively permitted; they are merely “less likely” to violate the rule.⁸⁶⁷ Moreover, the uncertainty caused by the Internet Conduct Standard goes far beyond what supporters characterize as the flexibility in a regulatory structure that is necessary to address future harmful behavior.⁸⁶⁸ We thus find that the vague Internet Conduct Standard subjects providers to substantial regulatory uncertainty⁸⁶⁹ and that the record before us demonstrates that the Commission’s predictive judgment in 2015 that this uncertainty was “likely to be short term and will dissipate over time as the marketplace internalizes [the] Title II approach”⁸⁷⁰ has not been borne out.

244. Increasing our concerns about the Internet Conduct Standard, other agencies already have significant experience protecting against the harms to competition and to consumers that the Internet Conduct Standard purports to reach. The FTC, for example, has authority over unfair and deceptive practices, both with respect to competition and consumer protection. We find that the FTC’s authority over unfair and deceptive practices and antitrust laws, with guidance from its ample body of precedent,⁸⁷¹ already provides the appropriate flexibility and predictability to protect consumers and competition and addresses new practices that might develop with less harm to innovation.⁸⁷² While antitrust laws use a consumer welfare standard defined by economic analysis to evaluate harmful conduct, the Internet Conduct Standard includes a non-exhaustive grab bag of considerations that are much broader and hazier than the consumer welfare standard, and leaves the door open for the Commission to consider other factors or unspecified conduct it would like to take into account.⁸⁷³

245. We anticipate that eliminating the vague Internet Conduct Standard will reduce regulatory uncertainty and promote network investment and service-related innovation. As we discussed above, regulatory uncertainty serves as a major barrier to investment and innovation.⁸⁷⁴ The record reflects that ISPs and edge providers of all sizes have foregone and are likely to forgo or delay innovative

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Standard is not vague or open-ended and is similar to the rule adopted by the Commission in 2010 which also prohibited unreasonable discrimination and was generally not opposed by ISPs); Public Knowledge Comments at 123-124 (asserting the *Title II Order* provides extensive guidance on how the conduct standard would be applied—“explanations of each factor in combination with the option to obtain an Advisory Opinion puts broadband providers on more than sufficient notice of what conduct they are and are not permitted to engage in.”).

⁸⁶⁶ AT&T Comments at 51; TIA Reply at 5. The few concrete examples of actual business practices that could be subject to the Internet Conduct Standard all involve zero-rating or sponsored data. *See Title II Order*, 30 FCC Rcd at 5666-69, paras. 151-53.

⁸⁶⁷ *See Title II Order*, 30 FCC Rcd at 5661-62, para. 139.

⁸⁶⁸ *See, e.g.*, Engine Comments at 28; ESA Comments at 10; Free Press Comments at 66; Vimeo Comments at 17.

⁸⁶⁹ *See, e.g.*, ADTRAN Comments at 23; AT&T Econ. Decl. at 49, para. 92 (“Given this history and the Commission’s explicit reservation of a right to condemn conduct based on additional, unspecified considerations in the future, the industry has every reason to expect further regulation, expanded application of Title II and the Internet Conduct Standard in novel ways, and regulation of more and more services.”); Comcast Comments at 69; Free State Foundation Comments at 31; National Multicultural Organizations Comments at 17; NCTA Comments at 43.

⁸⁷⁰ *Title II Order*, 30 FCC Rcd at 5791, para. 410.

⁸⁷¹ We also observe that because FTC and antitrust authority apply across industries, further precedent is likely to develop more quickly, while a sector-specific general conduct rule is likely to develop more slowly.

⁸⁷² *See, e.g.*, Acting Chairman Ohlhausen Comments at 9-12; FTC Staff Comments at 21-29. As such, we reject assertions that eliminating the general conduct rule will prevent regulatory authorities from taking action in the future. *See, e.g.*, Home Telephone Company Comments at 20.

⁸⁷³ *See supra* Part III.C.3.

⁸⁷⁴ *See supra* Part III.C.1.

service offerings or different pricing plans that benefit consumers, citing regulatory uncertainty under the Internet Conduct Standard in particular.⁸⁷⁵ Indeed, these harms are not limited to ISPs—the rule “creates paralyzing uncertainty for app developers and other edge providers,” as well as equipment manufacturers.⁸⁷⁶ Even some proponents of Title II acknowledge these public interest harms.⁸⁷⁷ Commenters also note that “money spent on backward-looking regulatory compliance is money not spent on more productive uses, such as investments in broadband plant and services.”⁸⁷⁸ We anticipate that eliminating the Internet Conduct standard will benefit consumers, increase competition, and eliminate regulatory uncertainty that has “a corresponding chilling effect on broadband investment and innovation.”⁸⁷⁹

246. The now-retracted Zero-Rating Report issued by the Wireless Telecommunications Bureau illustrates the uncertainty ISPs experience as a result of the Internet Conduct Standard adopted in

⁸⁷⁵ Comcast Comments at 37, 45, 72 (stating that the FCC’s year-long investigation into Comcast’s Stream TV, which was not even an Internet service, resulted in an 18-month delay in the launch of this service); Comcast Reply at 32; *see also, e.g.*, ACA Comments at 19-22 (“ACA members reported a range of negative impacts on their ability and incentive to develop and deploy innovative new features and services and the need to alter existing business models as a result of being subjected to . . . [the Internet Conduct Standard]. Impacts included holding off or delaying moving to usage-based billing and data caps and allowances, changing or abandoning existing use of these models, and holding off or delaying launching “individualized” arrangements with edge providers that would improve the end user experience because of the uncertainty created by . . .” the Internet Conduct Standard) (citing attached Hickle Decl. at paras. 11, 14; Kyle Decl. at para. 5; Sjoberg Decl. at para. 11-13)), 64 & n.207 (noting Mr. Sjoberg and other ACA members explained that “just knowing that the Commission was investigating the data cap and pricing practices of the larger ISPs had a chilling effect on [their] willingness to use data caps.”) (citing Sjoberg Decl. at para. 12; Hickle Decl. at para. 11; Kyle Decl. at para. 15)); AT&T Comments at 51-52; Charter Comments at 11 (asserting that it “put on hold a project to build out its out-of-home Wi-Fi network, due in part to concerns about whether future interpretations of Title II would allow Charter to continue to offer its Wi-Fi network as a benefit to its existing subscribers” and that “[s]imilar concerns about the potential consequences of applying Title II obligations to Charter’s own networks also contributed to Charter’s decision, last year, to delay and then move more slowly with plans to launch a wireless service”); Cox Comments at 2-3, 16 (stating that it has approached the “development and launch of new products and service features with greater caution, thereby impacting its ability to quickly meet the ongoing demands of its customers within a highly competitive marketplace” due to the uncertainty created by the *Title II Order* and Internet Conduct Standard); Free State Comments at 56; NCTA Comments at 38-40 (noting that NCTA’s members are on record explaining that the Internet Conduct Standard “has had a significant negative impact on product development, deployment, and time to market”); Sprint Comments at 6; WISPA Comments at 2, 33; Cox Reply at 9-10; Mobile Future Reply at 6; TIA Reply at 6; 70 Small WISPs May 9, 2017 Letter at 2 (asserting that eliminating the Internet Conduct Standard “will improve our access to capital so that our small businesses can continue to expand and improve our networks.”); 19 Muni ISPs May 11, 2017 Letter at 2 (contending these Muni ISPs “often delay or hold off from rolling out a new feature or service because we cannot afford to deal with a potential complaint and enforcement action.”); Bluegrass et al. (rural wireless) May 11, 2017 Letter at 1 (asserting the uncertainty for wireless providers “hinders the ability to meet customers’ needs” and “inhibits [their] ability to build and operate networks in rural America”); *see also supra* paras. 99-102.

⁸⁷⁶ NCTA Reply at 33 (referring to ACT Comments at 3); *see also* Ericsson Comments at 7; Nokia Comments at 8-9.

⁸⁷⁷ *See, e.g.*, Jon Peha Light-Touch Regulation Comments at 5-6 (“In the absence of guidance [on what the general conduct standard is designed to prohibit], BIAS providers may be deterred from offering services that would not violate regulations and would benefit consumers, or they may not be deterred from offering services that are harmful to consumers. . . [I]t is clear that leaving the ‘Internet conduct standard’ in its current form is not the best option.”); EFF Comments at 28-29 (“[T]he Commission nevertheless has significant discretion to weigh these factors in every case. Accordingly, the burden on regulated providers in litigating such cases ad hoc could discourage innovation and impede the Internet’s continued growth as a platform for speech, commerce, and social activity.”).

⁸⁷⁸ ACA Reply at 12-13 & n.33; *see also supra* paras. 89-98.

⁸⁷⁹ Comcast Comments at 69.

the *Title II Order*.⁸⁸⁰ As described in the Report, “zero-rated” content, applications, and services are those that end users can access without the data consumed being counted toward the usage allowances or data caps imposed by an operator’s service plans.⁸⁸¹ But following a thirteen-month investigation during which providers were left uncertain about whether their zero-rating practices complied with the Internet Conduct Standard, the Report still did not identify specific evidence of harm from particular zero-rating programs that increased the amount of data that consumers could use or provide certainty about whether particular zero-rating programs were legally permissible.⁸⁸² Instead, it offered a “set of overall considerations” that it said would help ISPs assess whether a particular zero-rating plan violates the *Title II Order*.⁸⁸³ The now-retracted Zero-Rating Report demonstrated that under the Internet Conduct Standard ISPs have faced two options: either wait for a regulatory enforcement action that could arrive at some unspecified future point or stop providing consumers with innovative offerings.

247. We anticipate that eliminating the vague Internet Conduct Standard will also lower compliance and other related costs.⁸⁸⁴ The uncertainty surrounding the rule “establishes a standard for behavior that virtually requires advice of counsel before a single decision is made” and raises “costs [especially for smaller ISPs that] struggle to understand its application to their service prices, terms, conditions, and practices.”⁸⁸⁵ Smaller ISPs contend that they cannot “afford to be the subject of enforcement actions by the Commission or defend themselves before the Commission as a result of consumer complaints, because the costs of having to defend their actions before the Commission in Washington are enormous, relative to their resources.”⁸⁸⁶ ISPs “that are required to defend themselves against arbitrary enforcement actions and/or frivolous complaints will not have the time or financial resources to invest in their business. The costs of such compliance will likely be passed onto consumers

⁸⁸⁰ See Wireless Telecommunication Bureau, Policy Review of Mobile Broadband Operators’ Sponsored Data Offerings for Zero Rated Content and Services (WTB Jan. 11, 2017), http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0111/DOC-342987A1.pdf (*Zero Rating Report*); see also, e.g., ACA Comments at 63-64; ACT Comments at 3; ADTRAN at 17; AT&T Econ. Decl. at 6, para. 23; Comcast Comments at 70-71; CTIA Comments at 12; Downes Comments at 24; National Multicultural Organizations Comments at 17-18; NCTA at 37, 43.

⁸⁸¹ *Zero Rating Report* at 2.

⁸⁸² *Id.* at 15 (explaining that “we lack the information at this time, needed to assess whether AT&T’s current sponsored data price to third party providers . . . is reasonable under this standard”).

⁸⁸³ *Id.* at 10.

⁸⁸⁴ See, e.g., ACA Comments at 61, 64; Comcast Comments at 38; Cox Comments at 31 (“Cox (like other BIAS providers) has been forced to undertake additional costly and open-ended regulatory reviews to consider whether new products and services could be alleged to run afoul of this extraordinarily vague standard, and has approached such decisions more cautiously.”); CTIA Comments at 27; NCTA Comments at 38-40; Verizon Comments at 13; WISPA Comments at 11; 70 Small WISPs May 9, 2017 Letter at 2; see also Comcast Reply at 32; CTIA Reply at 38 & n.152; NCTA Reply at 33 & n.117; TIA Reply at 4; WISPA Reply at 7-8 (all agreeing that the standard results in overburdening providers with the costly need to involve counsel in every business decision).

⁸⁸⁵ ACA Comments at 61, 64 (“Because the rule is so vague and open-ended, it required smaller ISPs to consult with counsel for both retrospective reviews of existing services and practices and prospective reviews of future plans to reduce the risk of Commission enforcement actions or consumer complaints. The addition of retrospective and prospective regulatory compliance reviews under the Internet General Conduct standard increased ACA members’ legal and consulting costs, diverting scarce resources from service and network improvements.”); WISPA Comments at 11 (asserting the standard particularly effects smaller ISPs that “may be poorly equipped to address the legal, technical, and financial burdens associated with an uncertain regulatory environment”); TIA Reply at 4; WISPA Reply at 7 (contending the “impact of this uncertainty falls particularly heavy on WISPs and other small service providers, who have little margin to absorb additional regulatory compliance and litigation expenses”).

⁸⁸⁶ ACA Comments at 64.

via higher prices and/or limited service offerings and upgrades.”⁸⁸⁷ The record reflects widespread agreement from commenters with otherwise-divergent views that the Internet Conduct Standard creates significant harm without countervailing benefits.⁸⁸⁸

248. We are further persuaded that the advisory opinion process introduced in the *Title II Order* “offers no real relief from the unintended consequences of the Internet Conduct Standard.”⁸⁸⁹ The record reflects that the Internet Conduct Standard and the advisory opinions available under it “[are] completely divorced from the rapid pace of innovation in the mobile marketplace” because ISP innovations would be indefinitely delayed while the Commission conducts a searching analysis of any such offering that might violate the standard.⁸⁹⁰ The fact that no ISP has requested an advisory opinion in the two years since the launch of the advisory opinion process reinforces our conclusion that the process is too uncertain and costly.⁸⁹¹ As such, we reject commenters’ assertions to the contrary.⁸⁹²

b. Paid Prioritization

249. We also decline to adopt a ban on paid prioritization. The transparency rule we adopt, along with enforcement of the antitrust and consumer protection laws, addresses many of the concerns regarding paid prioritization raised in this record. Thus, the incremental benefit of a ban on paid prioritization is likely to be small or zero. On the other hand, we expect that eliminating the ban on paid prioritization will help spur innovation and experimentation, encourage network investment, and better allocate the costs of infrastructure, likely benefiting consumers and competition. Thus, the costs (forgone benefits) of the ban are likely significant.⁸⁹³

⁸⁸⁷ WISPA Comments at 33; *see also* ACA Comments at 64-65 (“Given that the risks are high . . . smaller ISPs tend to err on the side of caution, even if that means depriving their customers and communities of innovative features and services that would be highly beneficial and forgoing the increased revenues these offerings would provide. These lost opportunity costs also weigh strongly against retention of the standard.”).

⁸⁸⁸ *See, e.g.*, ACT Comments at 3; AT&T Comments at 51-52; Bennett Comments at 3; CenturyLink Comments at 32; CTIA Comments at 9-12; EFF Comments at 28-29; Jon Peha Light-Touch Regulation Comments at 5-6; Sprint Comments at 5-7; NCTA Reply at 32. Many commenters assert that the Commission should eliminate the Internet Conduct Standard. *See, e.g.*, AT&T Comments at 51-61; Comcast Comments at 67-72; Cisco Comments at 14-16; NCTA Comments at 43-45; USTelecom Comments at ii; Comcast Reply at 33.

⁸⁸⁹ ACA Reply at 18; *see also* ADTRAN Comments at 23-24; AT&T Comments at 51-52 (asserting this “mother-may-I regime is a parody of bureaucratic overreach” that ISPs would rarely invoke and “might well increase their liability for increased forfeiture penalties if the Commission later concludes that staff’s ‘maybe’ answer had put them on due notice of potential concerns”); Comcast Comments at 72-73 (“The ‘advisory opinion’ process established in the Title II Order offers no real relief from these harmful, unintended consequences of the general conduct standard. As Chairman Pai has remarked, ‘seeking the government’s blessing in advance is precisely the opposite of permission-less innovation.’ In fact, the process seems only to add to the cost and uncertainty of compliance with the substantive standard. In order to take advantage of the process, ISPs must reveal detailed future business plans, subject to a potential request for more information from the Commission. Even then, there is no guarantee that the Commission would issue an opinion, much less in a timely manner that would align with ISPs’ business planning needs. Nor would the issuance of an opinion provide any real assurances to ISPs, as the opinions would not be binding and could be rescinded at a later time.”); WISPA Comments at 68-69 (“The absence of specific timeframes for the Bureau to act makes the value of Advisory Opinions illusory and essentially unavailable to small providers.”); TIA Reply at 6.

⁸⁹⁰ CTIA Reply at 39; *see also* ADTRAN Comments at 23 (“While it may have been tolerable to conduct years-long investigations of monopoly-era tariffs under the similarly vague ‘just and reasonable’ standard, ISPs cannot engage in the competitive, fast-paced Internet marketplace under such conditions.”).

⁸⁹¹ *See infra* para. 301; *see also, e.g.*, Comcast Comments at 72-73, WISPA Comments at 68-69; ACA Reply at 17.

⁸⁹² *See, e.g.*, OTI New America Comments at 61; Public Knowledge Comments at 123-25.

⁸⁹³ *See infra* paras. 315-317.

250. *Innovation.* We anticipate that lifting the ban on paid prioritization will increase network innovation, as the record demonstrates that the ban on paid prioritization agreements has had, and will continue to have, a chilling effect on network innovation generally, and on the development of high quality-of-service (QoS) arrangements—which require guarantees regarding packet loss, packet delay, secure connectivity, and guaranteed bandwidth—in particular.⁸⁹⁴ As CTIA argues, the *Title II Order* implicitly recognized this point, but its insistence that these arrangements be treated as non-broadband Internet access data services reduced the flexibility of ISPs and edge providers, created uncertainty about the line between non-broadband Internet access data services and broadband Internet access services, and likely reduced innovation.⁸⁹⁵ The record reflects that the ban on paid prioritization has hindered the deployment of these services by denying network operators the ability to price these services, an important tool for appropriately allocating resources in a market economy.⁸⁹⁶ Further, as commenters note, there has been significant uncertainty about the scope of the prohibition on paid prioritization

⁸⁹⁴ See Cause of Action Comments at 3-4; R Street Comments at 23; Theodore R. Bolema, *Allow Paid Prioritization on the Internet for More, Not Less, Capital Investment*, Perspectives from FSF Scholars at 3 (May 1, 2017) (ban hurts edge providers in new industries which may require a high level of end-to-end reliability); Free State Comments at 52 (“The benefits from video phone calls and video streams, for example, are reduced when data traffic congestion causes transmission delays. Paid prioritization agreements that provide Quality-of-Service guarantees could enhance the attractiveness and value of these services. Indeed, innovative edge providers have expressed willingness to pay broadband ISPs for some form of premium access, such as ensured faster delivery, in order to deliver a satisfactory consumer experience.”); CTIA Comments at 14 (“Particularly in the mobile wireless market, [the flat ban] may undermine future broadband offerings that enhance consumer welfare.”); AT&T Comments at 40-41; TIA Comments at 10-11 (“Capabilities such as remote health-care monitoring, health service delivery by mobile networks, and connected vehicle technologies will all require networks that can ensure a level of service quality that current networks cannot today fully support.”); Verizon Comments at 20-21; Comcast Comments at 55-57; Nokia Comments at 9-12.

⁸⁹⁵ See CTIA Comments at 14-16 (asserting that “whereas this approach might exempt specific applications that the Commission can identify in advance as requiring QoS enhancement, it imposes severe limits and burdens on *emerging* QoS-enabled Internet access applications, which will be subject at best to grave uncertainty and at worst an outright ban on needed prioritization”); see also Nokia Comments at 9 (“From an engineering viewpoint, those services that benefit from ‘paid prioritization’ have similar characteristics to ‘specialized services’ in that they are services that benefit from some level of guaranteed quality of service, thereby differentiating them from services or applications that run on the ‘best effort’ broadband Internet access service.”); AT&T Comments at 39 (“Certain Internet applications—such as high-definition videoconferencing and multi-player online gaming—also have unusually acute QoS needs but are less susceptible to a ‘managed service’ solution because they often involve participants using many different ISP networks. . . . The ISPs connecting these gamers to the Internet could thus greatly enhance the gaming experience for all participants by marking the relevant packets for special delivery in the event of congestion at peering points and anywhere else those packets are exchanged between IP networks. Such an arrangement would make gaming enthusiasts substantially better off.”).

⁸⁹⁶ See R Street Comments at 24 (“Practices that benefit consumers do not suddenly become harmful just because money changes hands.”); AT&T Comments at 40-41 (explaining that “industry participants might need to attach price signals to such QoS guarantees by charging for them, just as market participants in any other industry routinely ensure allocative efficiency by monetizing scarce resources rather than giving them away for free. The use of price signals would match QoS guarantees with the latency-sensitive applications and content that need them most in order to function optimally. Otherwise, *all* packets might ultimately be marked for special handling, and thus none would actually receive it”). We reject commenter assertions that banning the use of price as a signal provides more accurate price signals. See Ad Hoc Comments at 18-19 (asserting the ban allows “non-subscribers . . . to act on accurate price signals”). We also reject the argument that non-price signals, including user-directed prioritization, are by themselves sufficient to allow innovation and development in this area. See Jon Peha Light Touch Comments at 8, 10; Ad Hoc Comments at 18-19; TDI et al. Comments at 13; Public Knowledge Reply at 31-32; OTI New America Reply at 24.

arrangements.⁸⁹⁷ Some commenters contend that this uncertainty surrounding network operators' ability to provide "differentiated services" has cast a shadow on the development of next generation networks.⁸⁹⁸

251. We also expect that ending the flat ban on paid prioritization will encourage the entry of new edge providers into the market, particularly those offering innovative forms of service differentiation and experimentation.⁸⁹⁹ As ITTA explains, "[i]t is routine for entities that do business over the Internet to pay for a variety of services to provide an optimal user experience for their customers. Companies have been doing so for years without disturbing the thriving Internet ecosystem."⁹⁰⁰ We therefore reject arguments that the ban is necessary to provide a level playing field for edge providers.⁹⁰¹ Indeed, in other areas of the economy, paid prioritization has helped the entry of new providers and brands.⁹⁰² It is

⁸⁹⁷ TIA Comments at 10-11; Nokia Comments at 13 ("[T]here is no industry consensus on whether the current Open Internet rules that prohibit paid prioritization apply only to arrangements between edge providers and broadband Internet access providers or also preclude customer facing (or requested) requests for fee based technical prioritization."); CTIA Comments at 14-16.

⁸⁹⁸ See, e.g., Ericsson Comments at 7 ("Any limitation on this sort of customization could have the further effect of prohibiting network slicing . . . Networks have the technological capability to provide an array of beneficial, differentiated services to consumers. But because the existing regime discourages operators from making such offerings (and may even penalize them for doing so), that potential may not be realized and consumers may never see what they are missing."); Christopher Yoo Reply at 33 ("5G offers the promise of software defined networking and network function virtualization, in which network services are no longer provided by integrated companies, but rather by independent companies that allow customers to lease resources temporarily on a transactional, temporary, set-up and take-down basis [which] . . . is often described in the 5G context as network slicing. The problem is that network slicing is widely perceived as being inconsistent with net neutrality.")

⁸⁹⁹ Ericsson Comments at 5 ("Fostering an environment that encourages differentiated services is important because some online activities require only a minimal amount of bandwidth but extremely low latency; other uses may require greater bandwidth."); Economic Scholars Comments at 6 (finding that most peer-reviewed economic articles on net neutrality "find that some content providers value the features that could be offered [if the flat ban on paid prioritization was lifted] and so regulations lower content value."); Nokia Comments at 9-15. See Katz, *Wither U.S. Net Neutrality Regulation?*, at 16 (asserting that it is well established in economic literature that paid prioritization can facilitate entry).

⁹⁰⁰ ITTA Comments at 6; see also Katz, *Wither U.S. Net Neutrality Regulation?*, at 13-14 (asserting that the level playing field argument for rule proves too much: firms in other industries are not prohibited from buying inputs on non-neutral basis, and the level playing field argument wrongly focuses on competitor welfare rather than consumer welfare or efficiency).

⁹⁰¹ See Y Combinator Comments at 3-4; Meetup Comments at 5-7; FarmLogs Comments at 4-5; Etsy Comments at 4-5; Scaramella & Hoofnagle Comments at 4-5; Free Press Comments at 69; Internet Association Comments at 22; American Association of Community Colleges et al. Comments at 13; AARP Comments at 23; National Association of Realtors Comments at 2; DigitalOcean Comments at 6; Free Press Comments at 69; Sen. Schatz Reply at 1; Web Foundation Reply at 8-9.

⁹⁰² See Bolema, *Allow Paid Prioritization on the Internet for More, Not Less, Capital Investment* at 7 (citing as an example food manufacturers paying grocery stores for appealing places in the store); Benjamin Klein and Joshua D. Wright, *The Economics of Slotting Contracts*, 50 J. Law. & Econ. 421, 442-43 (2007) ("[All] major existing theories of slotting . . . claim that the increase in slotting since the early 1980s can be explained by the increase in new supermarket products. The annual number of new supermarket product introductions has increased more than eight-fold over this period, from 2,782 new products introduced in 1981 to 23,181 new products introduced in 2003."). Klein and Wright also note that "[t]he primary competitive concern with slotting arrangements is the claim that they may be used by manufacturers to foreclose or otherwise disadvantage rivals, raising the costs of entry and consequently increasing prices [ref. omitted]. It is now well established in both economics and antitrust law that the possibility of this type of anticompetitive effect depends on whether a dominant manufacturer can control a sufficient amount of distribution so that rivals are effectively prevented from reaching minimum efficient scale." *Id.* at 422. Thus, in the unlikely event that a dominant edge provider tried to buy up so much ISP capacity that a rival edge provider could not achieve minimum efficient scale, this conduct could be challenged under the antitrust laws.

therefore no surprise that paid prioritization has long been used throughout the economy.⁹⁰³ Paid prioritization could allow small and new edge providers to compete on a more even playing field against large edge providers, many of which have CDNs and other methods of distributing their content quickly to consumers.⁹⁰⁴

252. *Efficiency.* We find that a ban on paid prioritization is also likely to reduce economic efficiency, also likely harming consumer welfare. This finding is supported by the economic literature on two-sided markets such as this one, and the record.⁹⁰⁵ If an ISP faces competitive forces, a prohibition against two-sided pricing (i.e., a zero-price rule), while benefiting edge providers, typically would harm

⁹⁰³ Daniel Berninger Comments at 1; MediaFreedom Comments at 2; Bolema, *Allow Paid Prioritization on the Internet for More, Not Less, Capital Investment*, at 3, 7-8 (in other industries, paid prioritization encourages investments that benefit all consumers and lower prices for price-sensitive customers); ACLP Comments at 19-20 (citing consumer-friendly paid prioritization arrangements in other areas of the economy, including package delivery, ‘freemium’ content, and TSA Precheck); Free State Comments at 50-51 (“Paid prioritization arrangements are common throughout the economy. Evidence from other markets shows that paid prioritization arrangements that develop without regulatory intervention generally lead to more capital investment and benefit consumers. Many states now offer optional ‘fast lanes’ on highways, for a toll, as a way of attracting investment for highway projects. Commuters who want to avoid the tolls are not excluded from the highway, while commuters willing to pay for a faster trip have that option.”); Comcast Comments at 61-63; AT&T Comments at 41 n. 73 (“[P]aid prioritization arrangements are so ubiquitous outside the Internet context that they are an accepted part even of *regulated common carrier regimes* involving transport *monopolists*.”).

⁹⁰⁴ Bolema, *Allow Paid Prioritization on the Internet for More, Not Less, Capital Investment* at 9 (asserting that the ban may discourage entry of new edge providers, because paid prioritization could allow them to quickly scale up); Media Freedom Comments at 2 (“[S]mall start-ups want the flexibility to partner with ISPs in paid priority arrangements (or other forms of service differentiation) in order to get a leg up, or at least stay competitive with, their larger, well-heeled competitors.”); Free State Comments at 52; CEI Comments at 3; Nokia Comments at 13-15. We thus reject arguments that allowing pro-competitive paid prioritization will reduce the entry and expansion of small, new edge providers. See Digital Content Next Comments at 3; DigitalOcean Comments at 6; Voices Coalition Comments at 43; Sen. Schatz Reply at 1; OTI Reply at 25-26; Public Knowledge Comments at 112-13 (“Prior to the FCC’s adoption of these rules, venture capitalists observed that because the possibility of paid prioritization, they planned to ‘stay away from’ startups working on video and media businesses and noted that a proposal to allow some forms of paid prioritization added ‘another impediment to the already challenging fund-raising environment for digital media startups.’”) (citations omitted); Engine Comments at 11 (asserting it is “absurd to think that [startups] could outbid some of the largest companies in the world for priority access. Startups simply do not have sufficient capital to pay access or prioritization fees of any kind.”).

⁹⁰⁵ See Economic Scholars Comments at 4-6, 10 (reviewing peer-reviewed articles on net neutrality and finding that “[m]ost the articles . . . conclude that regulatory restrictions on what enhanced services ISPs may offer to content providers can lower economic efficiency”). The *Title II Order* cited three papers by economist Michael Katz to support its conclusions about paid prioritization—fully half of the economic literature cited in favor of the ban. See *Title II Order*, 30 FCC Rcd at 5655, para. 126, n. 296 & 297. In response, Katz has written that his papers simply “do not” support the conclusions of the *Title II Order*. Katz, *Wither U.S. Net Neutrality Regulation?* at 19. See also Benjamin E. Hermalin and Michael L. Katz, *The Economics of Product-Line Restrictions with an Application to the Network Neutrality Debate*, 19 *Information Economics and Policy* at 215-48 (2007) (demonstrating that regulations that require a platform owner to provide a single quality of service can reduce economic welfare). Modeling by Commission staff finds economic efficiency is often enhanced when the ISP can engage in either linear or nonlinear pricing on the edge provider side of the market. See Mark Bykowsky and William W. Sharkey, *Welfare Effects of Paid for Prioritization Services: A Matching Model with Non-Uniform Quality of Service* (2014) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2468202; see also Michelle Connolly et al., *The Digital Divide and Other Economic Considerations for Network Neutrality*, 50 *Rev. Ind. Organ.* 537, 548 (2017) (“[D]ifferent network platforms are better suited for different content applications. Therefore, even if ISPs do engage in some form of product differentiation, the content applications that they respectively prioritize would most probably differ”); Cisco Comments at 15; ITTA Comments at 6; ACLP Comments at 19; CWA/NAACP Comments at 14; Comcast Comments at 55-57; Nokia Comments at 12-13.

both subscribers and ISPs.⁹⁰⁶ Moreover, the level of harm to subscribers and ISPs generally would exceed the gain obtained by the edge providers and, thus, would lead to a reduction in total economic welfare.⁹⁰⁷ The reasons for this are straightforward. Some edge services and their associated end users use more data or require lower latency; this may be the case, for example, with high-bandwidth applications such as Netflix, which in the first half of 2016 generated more than a third of all North American Internet traffic.⁹⁰⁸ Without paid prioritization, ISPs must recover these costs solely from end users, but ISPs cannot always set prices targeted at the relevant end users. The resulting prices create inefficiencies. Consumers who do not cause these costs must pay for them, and end users who do cause these costs to some degree free-ride, inefficiently distorting usage of both groups. When paid prioritization signals to edge providers the costs their content or applications cause, edge providers can undertake actions that would improve the efficiency of the two-sided market. For example, they could invest in compression technologies if those come at a lower cost than paid prioritization, enhancing efficiency, or, if they have a pricing relationship with their end users, they could directly charge the end user for priority, leading those end users to adjust their usage if the user's value does not exceed the service's cost, again enhancing economic efficiency.⁹⁰⁹ And to the extent an ISP has market power, antitrust law would only allow such ISPs to engage in pro-competitive paid prioritization practices.⁹¹⁰

⁹⁰⁶ Victoria Kocsis & Paul Bijl, *Network neutrality and the nature of competition between network operators*, 4 Int'l Econ. & Economic Policy 159, 180-181 (2007) (finding ISP competition would generally reduce the harms, if any, of paid prioritization); M. Bykowsky & W.W. Sharkey, *Net Neutrality and Market Power: Economic Welfare with Uniform Quality of Service* at 6 (2014), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2468188 (finding ISPs, facing competition, set economically efficient prices to both sides of the market, and a zero price to edge providers is only efficient in special cases).

⁹⁰⁷ Shane Greenstein, Martin Peitz, and Tommaso Valletti, *Net Neutrality: A Fast Lane to Understanding the Trade-offs*, 30 Journal of Economic Perspectives 127, 137-38 (2016) (“[F]or end users . . . restricting internet service providers to one-sided pricing reduces total welfare and reduces the surplus received by the user, while content providers benefit from this regulatory intervention.”).

⁹⁰⁸ Sandvine, *2016 Global Internet Phenomena Report: Latin America and North America* at 2, <https://www.sandvine.com/downloads/general/global-internet-phenomena/2016/global-internet-phenomena-report-latin-america-and-north-america.pdf>.

⁹⁰⁹ Reason Foundation Comments at 11 (“[P]aid prioritization is an efficient and fair solution to the challenges created by bandwidth-hogging content. It enables the platform providers—broadband ISPs—effectively and efficiently to balance the two sides the market that they intermediate. And it ensures that content consumers and other users each pay a fair price for access to content.”); Christopher Yoo Reply at 34 (“If paid prioritized services are not permitted, all costs of increasing network capacity will be included into the subscription fees charged by Comcast. If paid prioritization is permitted and Netflix makes a side payment to Comcast, the result should be a slightly lower monthly payment to Comcast and a slightly higher monthly payment to Netflix.”); Connolly et al., *Digital Divide*, at 6 (“[I]n an unregulated market, ISPs have the incentive to transfer some surplus from [edge providers] to consumers in order both to retain existing customers and to attract new customers. Specifically, ISPs could charge [edge providers] higher prices in order to lower the last-mile fees for consumers in an attempt to maximize their end-user subscriptions.”). We disagree with commenters asserting that this is likely to significantly burden edge providers by requiring them to negotiate with hundreds of ISPs because as discussed, paid prioritization is likely to be focused only on applications with require special QoS guarantees, and even among those providers, is likely to be limited to the largest players. See *supra* paras. 250-251; cf. Internet Association Comments at 22-23 (“Allowing paid prioritization would in effect result in the ‘cable-ization’ of the Internet, in which edge providers (like creators of video programming in the cable context) would have to negotiate carriage deals on ISP networks in order to reach consumers effectively.”); AARP Comments at 22 (“[E]dge provider[s] would have to negotiate with a large number of broadband providers to reach fast-lane agreements to cover all broadband mass-market customers”).

⁹¹⁰ Judicial Watch Comments at 9-10 (“Allowing a two-sided market to flourish is more effective than regulation for keeping consumer prices low even in true monopoly provider cases, which broadband internet is likely not, given the ubiquity of wireless broadband.”); see also Nicolas Economides and Benjamin E. Hermalin, *The Economics of Net Neutrality*, 43 RAND J. Econ. at 602-629 (2012) (finding that paid prioritization may or may not increase total welfare, depending on the elasticity for content with respect to transmission time (i.e., quality of service)).

Given the extent of competition in Internet access supply, we find a ban on paid prioritization is unlikely to improve economic efficiency, and if it were to do so it would only be by accident (i.e., if the efficient second-best was to require ISPs to provide access to edge providers at a zero price).⁹¹¹

253. *Network investment.* The mere possibility that charging edge providers may sometimes be economically inefficient is not sufficient to overcome the general presumption that allowing firms additional pricing tools generally enhances economic efficiency, especially when investments must be made as demand rises to reduce congestion. The economic literature and the record both suggest that paid prioritization can increase network investment.⁹¹² For example, one study presents a model in which two competing ISPs serve a continuum of edge providers.⁹¹³ It finds that allowing ISPs to offer paid prioritization leads to higher investment in broadband capacity as well as greater innovation on the edge provider side of the market. According to the authors, paid prioritization causes the ISP to invest more in network capacity, reducing congestion and thereby inducing congestion-sensitive edge providers to enter the market. The increased ISP investment occurs for two reasons: incremental investment is more profitable because the ISP can now charge edge providers in addition to subscribers, and paid prioritization allows more edge providers who need a high quality of service to enter the market. Another study also develops a theoretical model in which paid prioritization always results in higher ISP investment.⁹¹⁴ We anticipate that lifting the ban on paid prioritization may also increase the entry of new ISPs and encourage current providers to expand their networks by making it easier for “ISPs [to] benefit from their new investments.”⁹¹⁵

⁹¹¹ Economic Scholars Comments at 4-6; *see also* Hermalin and Katz, *The Economics of Product-Line Restrictions with an Application to the Network Neutrality Debate*, 19 Information Economics and Policy at 215-248 (demonstrating that regulations that require a platform owner to provide a single quality of service can reduce economic welfare); Mark Armstrong, *Competition in Two-Sided Markets*, 37 RAND J. of Economics at 668-691 (2006); Jean-Charles Rochet and Jean Tirole, *Two-Sided Markets: A Progress Report*, 37 RAND J. of Economics at 645-667 (2006).

⁹¹² Bolema, *Allow Paid Prioritization on the Internet for More, Not Less, Capital Investment*, at 6 (asserting that banning paid prioritization is likely to reduce investment by ISPs, because ISPs are less likely to benefit from their investments); Cisco Comments at 15; ITTA Comments at 6; Nokia Comments at 5 (“[ISPs] are restricted from exploring revenue sources that could alleviate the burden consumers carry for funding network upgrades and expansions.”); CWA/NAACP Comments at 15 (allowing paid prioritization “provides the broadband providers with a revenue stream, encouraging increased infrastructure investment by increasing the return on that investment”). Thus, we reject the argument that the ban is necessary to ensure long-term network investment. *See* INCOMPAS Comments at 81-82 (“The NPRM does not address the potential long-term effects of paid prioritization, which would shift consumers away from the ordinary Internet and onto prioritization plans and discourage broadband providers from making network investments that would reduce scarcity and, accordingly, increase their ability to sell prioritized delivery—resulting in the breakdown of the virtuous circle.”); Internet Association Comments at 28; Public Knowledge Comments at 113-15.

⁹¹³ Marc Bourreau, Frago Kourandi, and Tommaso Valletti, *Net neutrality with competing internet platforms*, 63 J. Ind. Econ. (2015). Economides and Hermalin, *The Economics of Net Neutrality* (2012), also find that allowing the ISP to offer paid prioritization unambiguously results in the ISP investing in additional bandwidth. Also included in the debate involving the welfare effects of removing certain pricing restrictions on ISPs is the question of the effect of such a removal on the incentive of the ISP to increase bandwidth. Choi and Kim find the welfare effect of allowing an ISP to offer paid prioritization depends importantly on the parameters of their model. *See* Jay Pil Choi and Byung-Cheol Kim, *Net Neutrality and Investment Incentives*, 41 RAND J. Econ. at 446-471 (2010).

⁹¹⁴ Paul Njoroge, Asuma Ozdaglar, Nicolás E. Stier-Moses, and Gabriel Y. Weintraub, *Investment in Two-Sided Markets and the Net Neutrality Debate*, 12 Rev. Network Econ. at 355-402 (2013).

⁹¹⁵ Bolema, *Allow Paid Prioritization on the Internet for More, Not Less, Capital Investment* at 6; *see also* Cause of Action Comments at 3-4 (allowing paid prioritization will help small ISPs raise additional capital); R Street Comments at 24-25 (“Smaller broadband providers . . . often lack the resources to beat the prices of established competitors directly, but they can make deals and take risks to provide innovative new services. Some broadband providers in the United Kingdom, for example, have started offering plans that prioritize traffic for VoIP and gaming

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254. We reject assertions that allowing paid prioritization would lead ISPs to create artificial scarcity on their networks by neglecting or downgrading non-paid traffic.⁹¹⁶ This argument has been strongly criticized as having “no support in economic theory that such incentives exist or are sufficiently strong as to outweigh countervailing incentives.”⁹¹⁷ Moreover, as discussed above, in practice paid prioritization is likely to be used to deliver enhanced service for applications that need QoS guarantees.⁹¹⁸ As AT&T explains, “[l]ast-mile access is not a zero-sum game, and prioritizing the packets for latency-sensitive applications will not typically degrade other applications sharing the same infrastructure,”⁹¹⁹ such as email, software updates, or cached video.⁹²⁰ Because of these practical limits on paid prioritization, we reject the argument that non-profits and independent and diverse content producers, who may be less likely to need QoS guarantees, will be harmed by lifting the ban.⁹²¹

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applications. Such offerings allow broadband providers to differentiate their service offerings and better compete with other providers.”).

⁹¹⁶ See, e.g., *Title II Order*, 30 FCC Rcd at 5653-54, para. 126; Vimeo Comments at 14; Internet Association Comments at 22; Consumers Union Comments at 15; Public Knowledge Comments at 113; Netflix Reply at 8-9; see also AARP Comments at 22 (“Pay-for-priority and fast lanes will cause customer confusion and will degrade the value of broadband connections. Incentives consumers would have to upgrade to higher capacity broadband connections will be muted, as the full value of more bandwidth can only be achieved if *all web sites and content* have the potential to be delivered at the “up to” speed for which broadband subscribers pay.”).

⁹¹⁷ See J. Gregory Sidak and David J. Teece, *Innovation Spillovers and the “Dirt Road” Fallacy: The Intellectual Bankruptcy of Banning Optional Transactions for Enhanced Delivery Over the Internet*, 6 J. Competition L. & Econ. at 521-594 (2010); see also AT&T Comments at 42 (“Mobile and fixed-line providers would not be investing tens of billions of dollars a year to increase their speeds . . . if it were commercially viable for them to consign their customers to a ‘dirt road’ in any context. If Broadband Provider X began degrading its best-effort Internet access platform to favor its ‘prioritized’ content, such that most applications and content loaded more slowly on X’s network than on its rivals’ Internet access platforms, customers would begin switching to those rivals en masse.”). While other studies are more equivocal, even studies finding that there may be an effect find that it does not reduce economic efficiency, but merely transfers costs from ISPs to certain edge providers. Employing simulations to test the robustness of their welfare results, Commission staff in 2014 found that in many simulations the welfare of edge providers, as a group, declines under paid prioritization. Bykowsky and Sharkey, *Welfare Effects of Paid for Prioritization Services: A Matching Model with Non-Uniform Quality of Service* at 28.

⁹¹⁸ See *supra* paras. 250-251.

⁹¹⁹ AT&T Comments at 44-45.

⁹²⁰ See R Street Comments at 23-24; ACLP Comments at 20 (“The brief history of the Internet teaches that, regardless of how much capacity might be available, there will always be some level of congestion. Accordingly, there is significant evidence to support allowing firms to prioritize certain kinds of socially important content . . . over others”); CTIA Comments at 14-16; Ericsson Comments at 6 (“[B]ecause not all IoT connections place equal demands on the network, an inflexible version of net neutrality in this context could harm innovation. The notion that every data bit sent between connected cars should be treated with the same degree of priority as email traffic or that an augmented reality service is barred from obtaining a certain quality of service ignores the difference in requirements of the devices, applications, and users (not all of whom will be human) that will increasingly connect to the wireless Internet.”). *But see* Engine Reply at 6-7 (“While ISPs are fond of noting that telemedicine and autonomous vehicle services are far more latency-sensitive than email traffic, these types of unique services are likely to represent a tiny fraction of the prioritization deals ISPs will seek to cut if the existing ban on paid prioritization is removed.”); TDI et al. Comments at 11-12 (“[W]e have yet to observe concrete examples where (a) congestion exists sufficient to degrade traffic from accessibility-oriented applications (b) where accessibility oriented prioritization would provide a solution (c) that would function as well as simply provisioning more bandwidth for all users to relieve congestion.”); OTI New America Reply at 24.

⁹²¹ See Vimeo Comments at 15-17 (“This two-tiered Internet would privilege certain business models and types of content over others. For example, edge providers that provide studio content . . . are better positioned to pay premium rates. . . [and] may be able to pass increased delivery costs onto consumers. Not all video content, however, allows for such fee shifting. . . non-studio content will generally be relegated to the “slow lane,” thus

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255. *Reduction in price to consumers.* Eliminating the ban on paid prioritization arrangements could lead to lower prices for consumers for broadband Internet access service, as ISPs may be able to recoup some of their costs from edge providers.⁹²² As one study explains, the *Title II Order*'s ban on paid prioritization arrangements “can lead to higher prices that are charged to all end users—regardless of whether or not the end user subscribes to the content service that causes the congestion.”⁹²³

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diminishing its potential audience.”); Independent Film and Television Alliance at 5; Future of Music Comments at 1 (allowing paid prioritization “would allow big [ISPs] to create new pay-to-play fast lanes, disadvantaging those who cannot pay for preferential treatment, and replicating the industry’s past problems with payola.”); American Association of Law Libraries et al. Comments at 16 (“A world in which libraries and other noncommercial enterprises are limited to the internet’s ‘slow lanes’ while HD movies can obtain preferential treatment undermines a central priority for a democratic society—the necessity of all citizens to inform themselves and each other just as much as the major commercial and media interests can inform them.”); American Association of Community Colleges et al. Comments at 13; Digital Content Next Comments at 3-4; AARP Comments at 23; Public Knowledge Comments at 115-17. We reject related arguments about a reduction in consumer choice, because paid prioritization is unlikely to affect choice for content that does not demand QoS guarantees and is likely to *increase* choice for content that would benefit from QoS guarantees. Consumers Union Comments at 16 (“Without restrictions upon paid prioritization, the internet could very well become commoditized in a way where it would look and feel different, with an expensive tier of prioritized access, and an ‘everything else’ tier of slower service. We do not believe this alternative, two-tiered—and likely, more expensive—internet benefits consumers.”); Internet Association Comments at 22-23; DigitalOcean Comments at 6. Nor do we think we need to address assertions that paid prioritization would endanger U.S. national security as they are vague and lack any substantiation whatsoever. See Catherine Sandoval Reply at 25 (“Proposals to permit unregulated paid prioritization on the Internet reflect a September 11-type of failure of imagination about risks to America’s national security and democracy. Foreign governments and their agents would relish the opportunity to buy priority Internet access to slow American messages or create a priority blockade. . . . The FCC fails to connect the dots between the dangers of allowing any person or entity, including foreign actors or agents, to buy paid prioritization in an unregulated U.S. Internet market if the FCC adopts its proposal. This colossal omission recalls the failure of imagination that contributed to the September 11 attacks against our nation.”).

⁹²² R Street Comments at 24 (“Allowing market prices to prevail . . . would tend to lead to more efficient cost-sharing between consumers and content providers. Banning paid prioritization effects a price control for one side of the two-sided market, and will raise prices for the other side — namely, consumers.”); CWA/NAACP Comments at 15 (“[S]hifting the cost of broadband transport from end users to edge providers [will] potentially lower[] end-user subscriber rates for broadband service, thereby reducing cost barriers to adoption of broadband services.”); Cisco Comments at 11-12 (“[T]he *Title II Order*’s blanket ban on paid prioritization actually increases consumer broadband prices by artificially forcing network service providers to charge lower prices to edge providers, necessitating that costs be passed along to end users”). See *supra* para. 119 (discussing ISPs role as platform providers in two-sided market). But see Nicholas Stephen Muise Comments at 4 (asserting that there is an “astronomically low” likelihood that ISPs will use increased revenues from paid prioritization to reduce end user charges); AARP Comments at 24 (“[I]t is more likely that any ‘new revenue streams’ would be utilized by broadband ISPs to enhance profits rather than to be returned to customers.”).

⁹²³ See Michelle Connolly, et al., *The Digital Divide and Other Economic Considerations for Network Neutrality*, Rev. Ind. Organ. at 5-6, 16-17 (2017). For examples from telecommunications, see Mark Armstrong, *Competition in two-sided markets*, RAND J. Econ. at 677-678 (2006) (finding that a type of two-sided market model, the ‘competitive bottlenecks’ model, is a reasonable “stylized representation” of a mobile telecommunications network and stating that “the models predict that high profits made from call termination are passed on to subscribers in the form of subsidized handsets or similar inducements. . . the equilibrium call-termination charge is chosen to maximize the welfare of mobile subscribers and mobile networks combined, and the interests of those who call mobile networks are ignored. This feature—that the single-homing side is treated well and the multi-homing side’s interests are ignored in equilibrium—is a characteristic of the models. . . .”); Christos Genakos and Tommaso Valletti, *Testing the ‘Waterbed’ Effect in Mobile Telephony*, J. European Economic Association at 1114-1116, 1120 (2011) (finding that “reducing the level of [fixed-to-mobile termination rates] can potentially increase the level of prices for mobile subscribers, causing . . . the *waterbed* effect,” and finding that “although regulation reduced

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256. *Closing the digital divide.* Paid prioritization can also be a tool in helping close the digital divide by reducing broadband Internet access service subscription prices for consumers. The zero-price rule imposed by the blanket ban on paid prioritization “imposes a regressive subsidy, transferring wealth from the economically disadvantaged to the comparatively rich by forcing the poor to support high-bandwidth subscription services skewed towards the wealthier.”⁹²⁴ One study concludes that “[a]t the margin, this would cause the lowest-end users to simply stop subscribing to internet services, which would further exacerbate the existing digital divide.”⁹²⁵ Accordingly, economic “models . . . suggest that network neutrality regulation is more likely to worsen than improve the digital divide.”⁹²⁶ We reject the contrary argument that ISPs will engage in “virtual redlining” because, as discussed, paid prioritization is likely to lead to increased network investment and lower costs to end users, particularly benefiting those on the wrong side of the digital divide.⁹²⁷ Allowing ISPs to charge both sides of the market could also enable additional arrangements to provide special low-cost broadband access, increasing broadband adoption among lower-income consumers.⁹²⁸ For example, permitting “differential pricing” may enable the development of “[p]latforms that are both free and tailored to [people without Internet access],” similar to Facebook’s Free Basics program in developing countries.⁹²⁹ Nokia suggests that “a start-up company that wants to reach new customers with a bandwidth intensive application that will not work as intended below a certain service tier . . . should be allowed to offer to boost [a] consumer’s bandwidth so he or she can experience their product as intended,” and argues such arrangements “are most likely to benefit lower-income consumers, since those that already purchase high-tier services are less likely to benefit from third-party-pays QoS enhancements.”⁹³⁰

257. *Addressing Harms.* We find that antitrust law, in combination with the transparency rule we adopt, is particularly well-suited to addressing any potential or actual anticompetitive harms that may arise from paid prioritization arrangements. The transparency rule will require ISPs to disclose any

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[termination rates] by about 10%, this also led to a 5% increase in mobile retail prices, varying between 2% and 15% depending on the estimate”).

⁹²⁴ Cisco Comments at 11-12; *see also* Hylton, *Law, Social Welfare, and Net Neutrality* at 7; CWA/NAACP Comments at 15 (“[A]llowing broadband providers to charge edge providers for content delivery network services and QoS offerings sends efficient market signals, and avoids subsidizing heavy users of broadband access at the expense of lighter users”); TIA Reply at 8-9 (asserting that the ban on paid prioritization “imposes a regressive subsidy, transferring wealth away from the economically disadvantaged by forcing those with fewer resources to support high-bandwidth subscription services skewed towards the wealthier.”).

⁹²⁵ *See* Connolly et al., *Digital Divide* at 6, 16-17.

⁹²⁶ *Id.* at 16-17. Because ending the ban on paid prioritization is likely to help close the digital divide, we reject assertions to the contrary that ending the paid prioritization rule’s effective subsidization of high-bandwidth services will harm consumers overall. *See* American Association of Law Libraries et al. Comments at 16; American Association of Community Colleges et al. Comments at 13; Consumers Union Comments at 15; Public Knowledge Comments at 117.

⁹²⁷ *See* Connolly et al., *Digital Divide* at 16-17. For the virtual redlining argument, *see* Public Knowledge Comments at 120 (asserting that “rural communities and largely minority communities will be left behind in two ways—first, by ISPs that are reluctant to invest in broadband infrastructure deployment to those areas; and again, by edge providers that won’t be willing to spend money to deliver their content to those same customers at prioritized speeds.”).

⁹²⁸ Free State Foundation Comments at 54 (“[L]ower-income consumers may prefer to forego faster or otherwise premium services in exchange for the opportunity to choose more affordable services that are enabled by paid priority agreements. Unfortunately, the *Title II Order* wrongly constrains broadband ISPs’ freedom to charge edge providers based on their relative usage of ISP network facilities.”).

⁹²⁹ Bronwyn Howell Comments at 6.

⁹³⁰ Nokia Comments at 13-14.

practices that favor some Internet traffic over other traffic, if the practices are paid or benefit any affiliated entity.⁹³¹ The transparency rule will provide greater information to all participants in the Internet ecosystem and empower them to act if they identify any potential anticompetitive conduct. Antitrust law is ideally situated to determine whether a specific arrangement, on balance, is anti-competitive or pro-competitive.⁹³² Moreover, to the extent that they exist, the potential harms to Internet openness stemming from paid prioritization arrangements are outweighed by the distortions that banning paid prioritization would impose.⁹³³ Under the antitrust laws, a paid prioritization agreement challenged as anticompetitive would be evaluated under the case-specific rule of reason.⁹³⁴ Paid prioritization would be prohibited only when it harms competition, for example, by inappropriately favoring an affiliate or partner in a way that ultimately harms economic competition in the relevant market.⁹³⁵ The case-by-case, deliberative nature of antitrust is well-suited for this area, as it is difficult to determine on an *ex ante* basis which paid prioritization agreements are anticompetitive,⁹³⁶ and in fact, no Internet paid prioritization agreements have yet been launched in the United States.⁹³⁷

⁹³¹ See *supra* Part IV.A.2.

⁹³² We therefore reject the argument that the paid prioritization ban should be modified to more squarely focus on anticompetitive conduct. See, e.g., CompTIA Comments at 6-7; Jon Peha Light Touch Comments at 8-11. While these alternative formulations may not be as problematic as the blanket ban, for the reasons discussed above, antitrust law is better placed than *ex ante* regulations to balance the potential benefits and harms of new arrangements.

⁹³³ Cf., e.g., Singer, *Paid Prioritization and Zero Rating* at 2 (antitrust poorly suited to address harms to innovation); Akamai Comments at 8-9 (same); Engine Reply at 10-11 (same).

⁹³⁴ Ohlhausen, *Antitrust Over Net Neutrality*, 15 Colo. Tech. L.J. at 135-36. See Wright, *Antitrust Provides a More Reasonable Framework for Net Neutrality Regulation* at 4 (“The rule of reason analysis would not result in a categorical ban on vertical agreements. Instead, by applying rule of reason, vertical agreements would be analyzed on a case-by-case basis, and be rejected only if careful economic analysis concluded there are anticompetitive effects greater than any procompetitive effects or efficiencies.”); ADTRAN Comments at 24.

⁹³⁵ For example, a paid prioritization agreement offered to one edge provider but not others could be challenged as exclusionary. See FTC Broadband Report at 127 (“Use of exclusive dealing contracts, or other vertical arrangements, may support a monopolization claim.”). Such an agreement would be anticompetitive if the ISP has substantial market power, the agreement has the effect of excluding the edge provider’s competitors, and any resulting social costs are not outweighed by an improvement in economic efficiency and/or consumer welfare. See Ohlhausen, *Antitrust Over Net Neutrality*, 15 Colo. Tech. L.J. at 136.

⁹³⁶ Bolema, *Allow Paid Prioritization on the Internet for More, Not Less, Capital Investment* at 10 (asserting that because it is difficult to predict the impact of paid prioritization, regulation should proceed on case-by-case basis); Katz, *Wither U.S. Net Neutrality Regulation?* at 18-19; ITIF Comments at 17 (“We do not know in advance whether a particular traffic differentiation practice will be welfare enhancing or diminishing—prophylactic regulation risks over-enforcement, curtailing deals that may otherwise be good for consumers or competition.”); Justin Hurwitz Comments at 2 (“[T]he consistent conclusion of contemporary economic literature is that paid prioritization can have positive or negative effects on consumer welfare and that the specific effects of any given implementation are difficult to predict *ex ante*. From a policy perspective, this argues strongly against any per se ban on the practice, and strongly in favor of *ex post* case-by-case analysis.”); R Street Comments at 25 (“Economic literature has long recognized that the welfare effects of third-degree price discrimination are ambiguous and depend on the specific features and market structure of an individual case. Therefore, rather than outlawing hypothetical forms of price and service discrimination ahead of time, the Commission should presumptively allow broadband providers to experiment with innovative business models and service offerings.”). We therefore reject arguments that *ex ante* rules are preferable. See Akamai Comments at 10; Cmm’r McSweeny Comments at 6; Vimeo Comments at 24-25; Electronic Gaming Foundation Comments at 3; ESA Comments at 8-9; AARP Comments at 12-13.

⁹³⁷ See Cox Comments at 27-28; Comcast Comments at 61-63 (“A sweeping prohibition is much too blunt a tool, especially given that the asserted harms of such arrangements are entirely speculative. No ISPs have ever entered into paid prioritization arrangements, even before 2015 when there were no *per se* prohibitions of such arrangements in place.”).

258. Lastly, antitrust laws would not prevent an ISP from exercising legally-acquired market power to earn market rents, so long as it is not used anticompetitively, but we do not consider any harms that might result from this to be so large as to justify the harms that a total prohibition on paid prioritization would entail. For harms from exercising legally-acquired market power to arise, the ISP must have market power over the edge provider. However, as shown above, ISPs usually face at least moderate competition, and all the more so taking a medium-term perspective. Consequently, the harms that could possibly occur from exercise of such power are not likely to be large. Further, the extent to which any harms actually occur will be muted by two factors. First, ISPs have strong incentives to keep edge provider output high (as this increases the value end users see in subscribing to the ISP, and signals to edge providers that the ISP recognizes their contribution to the platform).⁹³⁸ Thus, harm will only occur to the extent the ISP is unable to devise pricing schemes that preserve edge providers' incentives to bring content while maximizing the ISP's profit (the exercise of market power is only harmful when it excludes what would otherwise be efficient purchases of access). Second, as discussed above, increased prices from edge providers are to a potentially significant extent passed through to end users in the form of lower prices for broadband Internet access service, with the result that end user demand for edge provider content is increased. The extent of such pass-through offsets these harms.⁹³⁹ Accordingly, we expect the harms from dictating pricing uniformity to edge providers exceed any harms that may emerge from a lack of such regulation.

c. Blocking and Throttling

259. We find the no-blocking and no-throttling rules are unnecessary to prevent the harms that they were intended to thwart. We find that the transparency rule we adopt today—coupled with our enforcement authority and with FTC enforcement of ISP commitments, antitrust law, consumer expectations, and ISP incentives—will be sufficient to prevent these harms, particularly given the consensus against blocking practices, as reflected in the scarcity of actual cases of such blocking.⁹⁴⁰

260. *Transparency rule.* As discussed above, the transparency rule we adopt, combined with antitrust and consumer protection laws, obviate the need for conduct rules by achieving comparable benefits at lower cost. In addition, several factors specific to blocking and throttling will work to prevent the potential harms that could be caused by blocking and throttling. First, most attempts by ISPs to block or throttle content will likely be met with a fierce consumer backlash.⁹⁴¹ As one commenter explains,

⁹³⁸ See *supra* paras. 117-122.

⁹³⁹ One article presents a simple case where edge providers charge end users leading to the payment flows between edge providers and ISPs having no efficiency implications; much of the rest of the paper shows that changes as one allows for more complexity, but with complex efficiency implications. Greenstein et al., *Net Neutrality: A Fast Lane to Understanding the Trade-offs*, 30 J. Econ. Perspectives at 133-34.

⁹⁴⁰ See *infra* paras. 318-319. For the same reasons, we reject alternative formulations of the no-blocking and no-throttling rules. See, e.g., CompTIA Comments at 6 (minimum level of access); R Street Comments at 21-22 (unreasonable discrimination); ESA Comments at 18-19 (ban only anticompetitive blocking and throttling); American Association of Community Colleges et al. Comments at 14-16 (modify rule to include end-user perspective).

⁹⁴¹ See, e.g., Frontier Comments at 6 (“Frontier does not have any interest in favoring certain Internet content or in interfering with anyone’s right to free speech. Frontier remains committed to ensuring its users can access the content of their choice. Indeed, the combination of competition in the broadband market and consumer expectations would significantly discipline any company that sought to micromanage a user’s content.”); TechFreedom Reply at 85-86 (the “few instances [of blocking] have been widely publicized, each resulting in the ISP soon relenting once consumers shone the news spotlight upon the controversial practice If [there are new blocking incidents that] are truly nefarious (i.e., the ISP is blocking a legal service/application that its customers are trying to access), then public outcry by the affected subscribers should likely be sufficient to convince the ISP to change its practices, rather than bear the brunt of public backlash, in hopes of pleasing its customers (and its investors).”). Given this record, we reject arguments that public reaction to such practices would not help to prevent the potential harms that

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such blocking or throttling is “unlikely to occur, because it must be sufficiently blatant to be of any benefit to the ISP, that [it] only increases the likelihood of getting caught.”⁹⁴² Second, numerous ISPs, including the four largest fixed ISPs, have publicly committed not to block or throttle the content that consumers choose.⁹⁴³ The transparency rule will ensure that ISPs reveal any deviation from these commitments to the public, and addresses commenter concerns that consumers will not understand the source of any blocking or throttling.⁹⁴⁴ Violations of the transparency rule will be subject to our enforcement authority. Furthermore, the FTC possesses the authority to enforce these commitments, as it did in *TracFone*.⁹⁴⁵ Third, the antitrust laws prohibit anticompetitive conduct, and to the extent blocking or throttling by an ISP may constitute such conduct, the existence of these laws likely deters potentially anticompetitive conduct.⁹⁴⁶ Finally, ISPs have long-term incentives to preserve Internet openness, which creates demand for the Internet access service that they provide.⁹⁴⁷

261. *Consensus against blocking and throttling.* We emphasize once again that we do not support blocking lawful content, consistent with long-standing Commission policy.⁹⁴⁸ The potential consequences of blocking or throttling lawful content on the Internet ecosystem are well-documented in the record and in Commission precedent.⁹⁴⁹ Stakeholders from across the Internet ecosystem oppose the

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could be caused by blocking and throttling. *See* Public Knowledge Comments at 109-111 (ISPs’ poor customer service ratings show that they do not respond to public outcry).

⁹⁴² ADTRAN Comments at 25.

⁹⁴³ *See supra* para. 142. In a similar vein, several commenters have pointed out the efficacy of the voluntary *Internet Policy Statement* in preserving the openness of the Internet. *See* Reason Foundation Comments at 11; Cause of Action Comments at 3; ITTA Comments at 3.

⁹⁴⁴ *See* Vimeo Comments at 10-11; Public Knowledge Comments at 111.

⁹⁴⁵ *See FTC v. TracFone Wireless, Inc.*, No. 15-cv-00392-EMC (N.D. Cal. Feb. 20, 2015), <https://www.ftc.gov/enforcement/cases-proceedings/132-3176/straight-talk-wireless-tracfone-wireless-inc>; FTC Staff Comments at 10-13; *supra* paras. 141-142. We reject arguments that FTC enforcement of commitments and government and private enforcement of antitrust laws are insufficient to protect consumers from blocking. *See, e.g.*, NTCH/Flat Wireless Comments at 7; INCOMPAS Comments at 80-81; Public Knowledge Comments at 108; Digital Content Next Comments at 2; Etsy Comments at 5; AARP Comments at 24.

⁹⁴⁶ *See supra* paras. 143-154.

⁹⁴⁷ *See supra* paras. 117-122. It is therefore unsurprising that previous ISP attempts to create “walled gardens” for their subscribers have failed, demonstrating that in the long run, demand is created by innovative edge provider content. *See* Comcast Comments Appendix C at 17–18 (“Long gone are the days when AOL and Yahoo were valuable precisely because they ‘controlled’ user access to the Internet. The ‘walled garden’ concept in which the BIAS provider’s homepage was its subscriber’s window to the Internet and the BIAS provider gave its subscriber standard services like email and news dramatically evolved. This evolution was driven by consumers’ preferences for a more open and less curated experience that allowed them to ‘surf’ for content they desired instead of content they were fed. . . . BIAS providers have learned that providing excellent Internet access service is their comparative advantage—including ubiquitous access to third-party content and services.”) (internal punctuation omitted).

⁹⁴⁸ *See Internet Policy Statement*, 20 FCC Rcd at 14988, para. 4 (“[C]onsumers are entitled to access the lawful Internet content of their choice.”); *2010 Open Internet Order*, 25 FCC Rcd at 17915, para. 19; *Title II Order*, 30 FCC Rcd at 5607, para. 15; *Internet Freedom NPRM*, 32 FCC Rcd at 4461, para. 80.

⁹⁴⁹ *See Internet Policy Statement*, 20 FCC Rcd at 14988, para. 4; *2010 Open Internet Order*, 25 FCC Rcd at 17941-42, para. 62. Commenters assert that blocking and throttling can undermine consumer choice (*see, e.g.*, Sen. Schatz Reply at 1; Free Press Comments at 67; American Association of Law Libraries et al. Comments at 14-15; Etsy Comments at 3-4; Greenlining Institute Comments at 17-18; Consumers Union Comments at 15); reduce investment in, or otherwise harm edge providers (*see, e.g.*, Vimeo Comments at 10; Engine Comments at 25-27; DigitalOcean Comments at 4; National Association of Realtors Comments at 2; ITI Comments at 4; FarmLogs Comments at 2); allow vertically-integrated ISPs to favor their own content (*see, e.g.*, DigitalOcean Comments at 4; Etsy Comments at 3-4; American Association of Law Libraries et al. Comments at 15; CompTIA Comments at 2; Public Knowledge

(continued....)

blocking and throttling of lawful content, including ISPs,⁹⁵⁰ public interest groups,⁹⁵¹ edge providers,⁹⁵² other content producers,⁹⁵³ network equipment manufacturers,⁹⁵⁴ and other businesses and individuals who use the Internet.⁹⁵⁵ This consensus is among the reasons that there is scant evidence that end users, under different legal frameworks, have been prevented by blocking or throttling from accessing the content of their choosing.⁹⁵⁶ It also is among the reasons why providers have voluntarily abided by no-blocking practices even during periods where they were not legally required to do so.⁹⁵⁷ As to free expression in particular, we note that none of the actual incidents discussed in the *Title II Order* squarely implicated free speech.⁹⁵⁸ If anything, recent evidence suggests that hosting services, social media

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Comments at 111; Internet Association Comments at 27-28; AARP Comments at 16, 19-20); reduce innovation (*see, e.g.*, National Association of Realtors Comments at 2-3); harm OVDs (Vimeo Comments at 11-13; Internet Association Comments at 27-28); disfavor content on the basis of political views (*see, e.g.*, Susan Thomas Comments at 1-2; Jon Peha Light Touch Comments at 7; Public Knowledge Comments at 108; Greenlining Institute Comments at 15-19); subject ISPs to political pressure (*see* Public Knowledge Comments at 108; Rep. Pallone et al. Reply at 5; ITI Comments at 4); undercut the free exchange of ideas (*see, e.g.*, Sen. Schatz Reply at 1; American Association of Law Libraries et al. Comments at 14-15; Greenlining Institute Comments at 17-19), silence diverse voices (*see, e.g.*, American Association of Law Libraries et al. Comments at 14-15; Greenlining Institute Comments at 17-18; Common Cause Letter at 1; Voices Coalition Comments at 41-42); and harm people with disabilities (*see* TDI et al. Comments at 9-10).

⁹⁵⁰ *See, e.g.*, ACA Comments at 67-68; AT&T Comments at 2, 10, 101; Comcast Comments at 52-53; Cox Comments at 1, Frontier Comments at 1, 5-6; Verizon Comments at 19-20; NCTA Comments at 54; ITTA Comments at 3; Charter Comments at 2.

⁹⁵¹ *See, e.g.*, Reason Foundation Comments at 11; Free Press Comments at 67-68; Public Knowledge Comments at 106-112; TDI et al. Comments at 9-10; Consumers Union Comments at 3, 13-15; AARP Comments at 13-16.

⁹⁵² *See, e.g.*, Apple Reply at 2; Twitter Reply at 2; Vimeo Comments at 10-11; Etsy Comments at 4; Mozilla Comments at 3; Microsoft Comments at 10-18; ESA Comments at 6-9; Meetup Comments at 2, 7; Internet Association Comments at 27-28.

⁹⁵³ *See, e.g.*, DGA SAG Comments at 4; Independent Film & TV Alliance Comments at 3-4; Future of Music Coalition Comments at 2; Electronic Gaming Foundation Comments at 4; Writers Guild of America West Comments at 18.

⁹⁵⁴ *See, e.g.*, ADTRAN Comments at 25-26; Cisco Systems Comments at 14; Ericsson Comments at 1; Nokia Comments at 2-3, 16.

⁹⁵⁵ *See, e.g.*, ADT Comments at 5-6; Internet Engineers Comments at 31; Jon Peha Light Touch Comments at 2, 4; CWA/NAACP Comments at 3, 12-13; American Association of Community Colleges et al. Comments at 14-16; Harold Hallikainen Comments at 11-12; David Ha Comments at 1, 6.

⁹⁵⁶ As Judges Williams and Silberman have pointed out, proponents of utility-style regulation have pointed to “astonishing[ly]” few incidents that involved the blocking of content or applications. *USTelecom*, 825 F.3d at 762 (Williams, J., dissenting); *Verizon*, 740 F.3d at 664-65 (Silberman, J., dissenting). *See supra* paras. 110-115; TechFreedom Reply at 85-86 (“[E]xamples of an ISP actually blocking a competitive application/service from accessing its last-mile network are remarkably few.”); Massillon Cable Comments at 7; AT&T Comments at 11; *infra* Part VI.B. We reject the argument that the blocking of alarm signals alleged by ADT justifies a no-blocking rule, because it is unclear if the blocking was intentional and the blocking was resolved informally. *See* Letter from Michael H. Pryor, counsel for ADT, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, Attach. at 3 (filed Oct. 11, 2017).

⁹⁵⁷ *See Title II Order*, 30 FCC Rcd at 5648, para. 112 (noting that “many broadband providers still voluntarily continue to abide by the 2010 no-blocking rule, even though they have not been legally required to do so by a rule of general applicability since the Verizon decision”); ITTA Comments at 3; Ericsson Comments at 10; Welch Comments at 5; *supra* Part III.C.2.

⁹⁵⁸ *See supra* paras. 110-115.

platforms, edge providers, and other providers of virtual Internet infrastructure are more likely to block content on viewpoint grounds.⁹⁵⁹

262. Additionally, as urged by the prior Commission when defending the *Title II Order*, and as confirmed in the concurrence in the denial of rehearing *en banc* by the two judges in the majority in *USTelecom*, the *Title II Order* allows ISPs to offer curated services, which would allow ISPs to escape the reach of the *Title II Order* and to filter content on viewpoint grounds.⁹⁶⁰ In practice, the *Title II Order* “deregulates curated Internet access relative to conventional Internet access [and] may induce ISPs to filter content more often,” rendering the no-blocking and no-throttling rules ineffectual as long as an ISP disclosed it was offering curated services.⁹⁶¹ The curated services exemption arising from the *Title II Order* confirms our judgment that transparency requirements, rather than conduct rules, are the most effective means of preserving Internet openness.

3. The Record Does Not Identify Authority for Comprehensive Conduct Rules

263. The record in this proceeding does not persuade us that there are any sources of statutory authority that individually, or in the aggregate, could support conduct rules uniformly encompassing all ISPs. We find that provisions in section 706 of the 1996 Act directing the Commission to encourage deployment of advanced telecommunications capability are better interpreted as hortatory rather than as independent grants of regulatory authority. We also are not persuaded that section 230 of the Communications Act is a grant of regulatory authority that could provide the basis for conduct rules here. Nor does the record here reveal other sources of authority that collectively would provide a sure foundation for conduct rules that would treat all similarly-situated ISPs the same.

⁹⁵⁹ See, e.g., Cloudflare, *Why We Terminated Daily Stormer* (Aug. 16, 2017), <https://blog.cloudflare.com/why-we-terminated-daily-stormer/> (explaining why Cloudflare, which provides reverse proxy, CDN, and DNS services, ceased providing these services to the neo-Nazi Daily Stormer website: “[W]e’ve felt angry at these hateful people for a long time but . . . remained content neutral as a network. We could not remain neutral after these claims of secret support by Cloudflare.”); Timothy B. Lee, *Tech companies declare war on hate speech—and conservatives are worried*, ArsTechnica (Aug. 31, 2017), <https://arstechnica.com/tech-policy/2017/08/tech-companies-are-cracking-down-on-hate-speech/> (“[U]sers across the political spectrum have long criticized technology companies for their seemingly arbitrary and non-transparent processes for moderating content on their platforms.”); Jeremy Malcolm, Cindy Cohn, and Danny O’Brien, *Fighting Neo-Nazis and the Future of Free Expression*, Electronic Frontier Foundation (Aug. 17, 2017), <https://www.eff.org/deeplinks/2017/08/fighting-neo-nazis-future-free-expression> (“Because Internet intermediaries, especially those with few competitors, control so much online speech, the consequences of their decisions have far-reaching impacts on speech around the world.”); Aaron Renn, *How Apple and Google are censoring the mobile Web*, New York Post (Aug. 21, 2017), <https://nypost.com/2017/08/21/how-apple-and-google-are-censoring-the-mobile-web> (“What few people yet understand is that Google and Apple have used their duopoly status to revoke the First Amendment on mobile phones.”); Kevin Robillard, *Twitter pulls Blackburn Senate ad deemed ‘inflammatory’*, Politico (Oct. 9, 2017), <https://www.politico.com/story/2017/10/09/marsha-blackburn-twitter-ad-243607> (“Twitter is barring a top Republican Senate candidate from advertising her campaign launch video on the service because a line about her efforts to investigate Planned Parenthood was deemed ‘inflammatory.’”); Hamza Shaban, *Gab is suing Google for allegedly violating antitrust laws*, Washington Post (Sept. 15, 2017) https://www.washingtonpost.com/news/the-switch/wp/2017/09/15/gab-is-suing-google-for-allegedly-violating-antitrust-laws/?utm_term=.fa40f5467e2d (“Google banned the social media platform from the Google Play Store last month, citing violations of Google’s hate speech policies.”).

⁹⁶⁰ *USTelecom*, 855 F.3d 381, 389 (D.C. Cir. 2017) (Srinivasan, J. and Tatel, J. concurring in denial of rehearing *en banc*).

⁹⁶¹ Brent Skorup Reply at 14. See NCTA Comments at 40 (“Ironically, then, the burdens of Title II could lead to a less open Internet and thereby frustrate the Commission’s policy goals.”).

a. Section 706 of the 1996 Act

264. We conclude that the directives to the Commission in section 706(a) and (b) of the 1996 Act to promote deployment of advanced telecommunications capability are better interpreted as hortatory, and not as grants of regulatory authority. We thus depart from the interpretation of those provisions adopted by the Commission beginning in the *Open Internet Order*, and return to a reading of that language in section 706 of the 1996 Act consistent with the Commission's original interpretation.

265. We adopt this reading in light of the text, structure, and history of the 1996 Act and Communications Act. Section 706(a) directs that:

The Commission and each State commission with regulatory jurisdiction over telecommunications services shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms) by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment.⁹⁶²

In turn, section 706(b) provides in pertinent part that “[i]f the Commission’s determination” under an annual inquiry into deployment of advanced telecommunications capability “is negative, it shall take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.”⁹⁶³

266. The relevant text of section 706(a) and (b) of the 1996 Act is reasonably read as exhorting the Commission to exercise market-based or deregulatory authority granted under other statutory provisions, particularly the Communications Act. The Commission otherwise has authority under the Communications Act to employ price cap regulation for services subject to rate regulation;⁹⁶⁴ to employ regulatory forbearance;⁹⁶⁵ to promote competition in the local telecommunications market;⁹⁶⁶ and to remove barriers to infrastructure investment.⁹⁶⁷ The Commission thus need not interpret section 706 as an independent grant of regulatory authority to give those provisions meaning.⁹⁶⁸ Further, consistent with

⁹⁶² 47 U.S.C. § 1302(a).

⁹⁶³ 47 U.S.C. § 1302(b).

⁹⁶⁴ See, e.g., *Policy and Rules Concerning Rates for Dominant Carriers*, CC Docket No. 87-313, Second Report and Order, 5 FCC Rcd 6786 (1990).

⁹⁶⁵ 47 U.S.C. § 160; see also, e.g., 47 U.S.C. § 332(c)(1) (providing authority to prescribe regulations designating provisions of Title II of the Communications Act (other than sections 201, 202, 208) as inapplicable to CMRS services or providers).

⁹⁶⁶ See, e.g., 47 U.S.C. §§ 251-261.

⁹⁶⁷ See, e.g., 47 U.S.C. §§ 224, 253, 254, 257.

⁹⁶⁸ See, e.g., CenturyLink Comments at 39-40; Free State Foundation Comments at 37 (“Prior Commission precedents recognized that Section 706 is not an independent grant of agency authority but rather a hortatory deregulatory policy statement meant to guide agency action under other statutory sections.”); Tech Freedom/ICLE Comments, GN Docket No. 14-28 *et al.*, at 74-75 (filed July 17, 2014) (Tech Freedom/ICLE 2014 Comments) *cited in* Washington Legal Foundation Comments at 9 n.20; Alamo Reply, Attach. at 11-12 (“Section 706(a) does not contain ‘conferrals of authority, but . . . references to the exercise of authority conferred elsewhere.’”); see also *Verizon*, 740 F.3d at 637 (“[T]his language could certainly be read as simply setting forth a statement of congressional policy, directing the Commission to employ ‘regulating methods’ already at the Commission’s disposal to achieve the stated goal of promoting ‘advanced telecommunications’ technology.”).

normal canons of statutory interpretation, the language “other regulating methods” in section 706(a) is best understood as consistent with the language that precedes it, and thus likewise reasonably is read as focused on the exercise of other statutory authority like that under the Communications Act, rather than itself constituting an independent grant of regulatory authority.⁹⁶⁹ This view also comports with the Commission’s original interpretation of the language of section 706(a),⁹⁷⁰ avoids rendering the provisions of section 706(a) or (b) surplusage,⁹⁷¹ and does not otherwise conflict with the statutory text. Although the term “shall” “generally indicates a command that admits of no discretion,”⁹⁷² because the Commission has other authority under the Communications Act that it can exercise consistent with the direction in section 706(a) and (b) of the 1996 Act, our interpretation is not at odds with the use of “shall encourage” in section 706(a) or “shall take immediate action” in section 706(b).⁹⁷³

267. We not only find that the relevant language in sections 706(a) and (b) of the 1996 Act permissibly can be read as hortatory, but are persuaded that is the better interpretation.⁹⁷⁴ For one, although the relevant provisions in section 706(a) and (b) identify certain regulatory tools (like price cap regulation and regulatory forbearance) and marketplace outcomes (like increased competition and reduced barriers to infrastructure investment), they nowhere identify the providers or entities whose conduct could be regulated under section 706 if interpreted as a grant of such authority.⁹⁷⁵ This lack of detail stands in stark contrast to Congress’s approach in many other provisions enacted or modified as part of the 1996 Act that clearly are grants of authority to employ similar regulatory tools or pursue similar marketplace outcomes and that directly identify the relevant providers or entities subject to the

⁹⁶⁹ See, e.g., Alamo Reply, Attach. at 11-12 (“Under the *eiusdem generis* canon, which Verizon did not apply, the catchall—‘other regulating methods that remove barriers to infrastructure investment’—must also refer to preexisting authority.” (citation omitted)); Christopher S. Yoo Reply at 5-6 (“The phrase ‘other regulating methods that remove barriers to infrastructure investment,’ is a classic catchall clause. Basic canons of statutory construction require that its scope be limited to the terms that precede it.”).

⁹⁷⁰ See, e.g., *Advanced Services Order*, 13 FCC Rcd at 24044-48, paras. 69-77.

⁹⁷¹ In particular, section 706(a) provides a general, ongoing exhortation for the Commission to encourage deployment of advanced telecommunications capability through exercise of other authority, while section 706(b) directs the Commission to do so by taking “immediate action” in the event of a negative finding under the section 706(b) inquiry. 47 U.S.C. § 1302(a), (b). The direction in section 706(b) of the 1996 Act that the Commission exercise other authority by taking “immediate action” in the event of a negative finding under the section 706(b) inquiry could, for example, form part of the basis for petition(s) for Commission rulemaking based on such other authority in the wake of a negative finding in the section 706(b) inquiry. Although the Tenth Circuit concluded that the possibility of such an interpretation of section 706(b) would not unambiguously compel the conclusion that the provision is hortatory, the court’s decision does not limit our ability to rely on that as a factor that persuades us that section 706(b) is better read as hortatory. See *In re FCC 11-161*, 753 F.3d 1015, 1053-54 (10th Cir. 2014).

⁹⁷² See, e.g., *Ass’n of Civilian Tech. v. FLRA*, 22 F.3d 1150, 1153 (D.C. Cir. 1994).

⁹⁷³ 47 U.S.C. § 1302(a), (b).

⁹⁷⁴ Arguments in the record supporting section 706 of the 1996 Act as granting regulatory authority generally contend that this is a permissible interpretation but do not persuade us it is the better reading. See, e.g., AARP Comments at 39-40; ACLP Comments at 26-28; American Association of Community Colleges et al. Comments at 22; ACA Comments at 72; AT&T Comments at 101-06; Black Women’s Roundtable Comments at 4; California PUC Comments at 33; Chamber of Commerce Comments at 7-8; Cogent Comments at 22-24; Comcast Comments at 51; CWA/NAACP Comments at 15-17; CompTIA Comments at 6; Cox Comments at 25-27; Entertainment Software Association Comments at 14-16; ITIF Comments at 19; NCTA Comments at 57; Public Knowledge/Common Cause Comments at 62; Verizon Comments at 18; WISPA Comments at 23-24; WTA Comments at 6; Association of Research Libraries Reply at 13; SIIA Reply at 13; see also, e.g., *Comcast* 600 F.3d at 658 (section 706 “at least arguably . . . delegates” authority to the Commission).

⁹⁷⁵ See, e.g., Brief of Harold Furchtgott-Roth and Washington Legal Foundation, *USTelecom v. FCC*, at 13 (filed Aug. 6, 2015) (Furchtgott-Roth/Washington Legal Foundation Brief) cited in Washington Legal Foundation Comments at 9 n.20.

exercise of that regulatory authority.⁹⁷⁶ The absence of any similar language in section 706(a) and (b) of the 1996 Act supports our view that those provisions are better read as directing the Commission regarding its exercise of regulatory authority granted elsewhere.

268. Indeed, under the *Open Internet Order*'s theory of section 706(a) and (b) as independent grants of authority, the Commission could rely on those provisions to impose duties or adopt regulations equivalent to those directly addressed by the provisions of the Communications Act focused on promoting competition and/or deployment that go beyond the entities, contexts, and circumstances that bounded the Communications Act provisions. Section 706(a) and (b) direct the Commission to promote competition in the local telecommunications market and otherwise encourage the deployment of advanced telecommunications capability. Promoting local competition and/or encouraging the deployment of telecommunications networks likewise are key objectives of a number of provisions added to the Communications Act by the 1996 Act, each of which were limited in scope to address the actions of particular, defined entities and were triggered in particular, defined circumstances.⁹⁷⁷ We are skeptical that at the same time Congress enacted carefully-tailored regulatory regimes codified in various provisions of the Communications Act, it simultaneously granted the Commission redundant authority to

⁹⁷⁶ See, e.g., 47 U.S.C. § 160 (authorizing the Commission to forbear from applying the Act or Commission rules to a telecommunications carrier or class of such carriers or a telecommunications service or class of such services); § 214(e) (imposing duties on carriers designated as eligible telecommunications carriers for universal service support purposes); *id.*, § 224 (requiring certain specified utilities to provide access to poles, ducts, conduit and rights-of-way); *id.*, § 251 (imposing certain market-opening requirements on telecommunications carriers, local exchange carriers (LECs), and incumbent LECs, respectively); *id.*, § 253 (authorizing preemption of state or local requirements that prohibit or have the effect of prohibiting the provision of telecommunications services); *id.*, § 254(k) (prohibiting telecommunications carriers from subsidizing competitive services with services not subject to competition); *id.*, § 259 (providing for regulation of incumbent local exchange carriers to provide access to public switched network infrastructure under certain circumstances); *id.*, § 271 (imposing market-opening requirements on Bell Operating Companies (BOCs) as a condition of providing in-region long distance services); *id.*, § 652 (restricting local exchange carriers and their affiliates from acquiring certain ownership interests in cable operators in the carriers' telephone service area and restricting cable operators and their affiliates from acquiring certain ownership interests in local exchange carriers in the cable operators' franchise area). Our consideration of this as one factor persuading us that section 706 of the 1996 Act is better read as hortatory is not undercut by our reliance on section 257 as authority for disclosure requirements that provide us information needed to identify potential barriers to entry and investment while also helping mitigate any such barriers. Although section 257 does not expressly identify entities from which we can obtain information, other aspects of section 257 persuade us that our interpretation of that provision as a grant of authority to obtain the information we require from ISPs is necessary for us to carry out our duties under that provision for the reasons discussed above. See *supra* Part IV.A.3. Here, by contrast, this consideration combines with many others to collectively persuade us that section 706 of the 1996 Act is better read as hortatory.

⁹⁷⁷ For example, the 1996 Act amended section 224 of the Communications Act to expand specified communications providers' access to utilities' poles, ducts, conduit, and rights-of-way to "ensure that the deployment of communications networks and the development of competition are not impeded by private ownership and control of the scarce infrastructure and rights-of-way that many communications providers must use in order to reach customers." *Implementation of Section 703(e) of the Telecommunications Act of 1996*, CS Docket No. 97-151, Report and Order, 13 FCC Rcd. 6777, 6780, para. 2 (1998). The market-opening framework in sections 251(a)-(c), 252 and 271 of the Communications Act, applicable respectively to telecommunications carriers, LECs, incumbent LECs, and BOCs, also were added by the 1996 Act. 47 U.S.C. §§ 251(a)-(c), 252, 271. The 1996 Act also added provisions to the Communications Act to eliminate regulatory barriers to competition and network deployment in certain defined circumstances. See, e.g., 47 U.S.C. § 160 (regulatory forbearance), *id.*, § 253 (preemption of state or local requirements that restrict the provision of telecommunications service), *id.*, § 332(c)(7) (limitation on state or local regulation of wireless facilities siting).

impose those same duties or adopt similar regulatory treatment largely unbound by that tailoring in a “Miscellaneous” provision of the same legislation.⁹⁷⁸

269. Our interpretation of section 706 of the 1996 Act as hortatory also is supported by the implications of the *Open Internet Order*’s interpretation for the regulatory treatment of the Internet and information services more generally. The interpretation of section 706(a) and (b) that the Commission adopted beginning in the *Open Internet Order* reads those provisions to grant authority for the Commission to regulate information services so long as doing so could be said to encourage deployment of advanced telecommunications capability at least indirectly.⁹⁷⁹ A reading of section 706 as a grant of regulatory authority that could be used to heavily regulate information services—as under the Commission’s prior interpretation—is undercut by what the Commission has found to be Congress’ intent in other provisions of the Communications Act enacted in the 1996 Act—namely, to distinguish between telecommunications services and information services, with the latter left largely unregulated by default.⁹⁸⁰

270. In addition, the 1996 Act added section 230 of the Communications Act, which provides, among other things, that “[i]t is 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.”⁹⁸¹ A necessary implication of the prior interpretation of section 706(a) and (b) as grants of regulatory authority is that the Commission could regulate not only ISPs but also edge providers or other participants in the Internet marketplace—even when they constitute information services, and notwithstanding section 230 of the Communications Act—so long as the Commission could find at least an indirect nexus to promoting the deployment of advanced telecommunications capability. For example, some commenters argue that “it is content aggregators (think Netflix, Etsy, Google, Facebook) that probably exert the greatest, or certainly the most direct, influence over access.”⁹⁸² Section

⁹⁷⁸ See, e.g., Free State Foundation Comments at 35-36; Tech Freedom/ICLE 2014 Comments at 63, 70-74, 89; Alamo Reply, Attach. at 12; Christopher S. Yoo Reply at 7.

⁹⁷⁹ See generally *Open Internet Order*, 25 FCC Rcd at 17968-71, paras. 117-22; see also, e.g., *Verizon*, 740 F.3d at 643 (affirming the *Open Internet Order*’s view that section 706 authority can be exercised even based on a ‘triple-cushion shot’ theory linking the regulation to deployment of advanced telecommunications capability).

⁹⁸⁰ See, e.g., *Stevens Report*, 13 FCC Rcd at 11520-26, paras. 39-48; see also, e.g., Furchtgott-Roth/Washington Legal Foundation Brief at 15 (“It is nonsensical to suggest that the same Congress that went out of its way to protect information services from common-carrier requirements simultaneously and *sub silentio* authorized the Commission to compel information service providers to act as common carriers.”).

⁹⁸¹ 47 U.S.C. §230(b)(2). The *Open Internet Order* asserted that “[m]aximizing end-user control is a policy goal Congress recognized in Section 230(b) of the Communications Act.” *Open Internet Order*, 25 FCC Rcd at 17944-45, para. 71. In full, however, section 230(b)(3) states that “[i]t is the policy of the United States-- . . . to encourage the development of technologies which maximize user control over what information is received by individuals, families, and schools who use the Internet and other interactive computer services.” 47 U.S.C. § 230(b)(3) (emphasis added). Although the rules in the *Open Internet Order* would have considered the extent to which a network management practice is subject to end-user control when evaluating the reasonableness of discrimination, that *Order* does not explain why that (or conduct rules more generally) would better encourage the development of technologies for end-user control than would be the case without such rules. See *Open Internet Order*, 25 FCC Rcd at 17944-45, para. 71. The *Title II Order* is similar in this regard. See *Title II Order*, 30 FCC Rcd at 5661-62, para. 139. Assertions of the sort in those *Orders* thus provide no basis for concluding that regulating ISPs is likely to better “encourage the development of technologies which maximize user control” than the absence of such regulations.

⁹⁸² ICLE Reply at 52; see also, e.g., ACA Comments at 72-73 n.231 (“ACA also continues to believe that Section 706 affords the Commission the authority to regulate the practices of Internet edge providers that threaten the free and open Internet by interfering with the virtuous cycle of innovation, consumer demand and broadband deployment and that it would be inequitable to continue to regulate broadband ISPs but leave Internet edge providers free to engage in harmful conduct.”).

230 likewise is in tension with the view that section 706(a) and (b) grant the Commission regulatory authority as the Commission previously claimed.⁹⁸³ These inconsistencies are avoided, however, if the deployment directives of section 706(a) and (b) are viewed as hortatory.

271. Prior Commission guidance regarding how it would interpret and apply the authority it claimed under section 706(a) and (b) of the 1996 Act does not allay our concerns with the interpretation of those provisions as grants of regulatory authority. For example, the *Open Internet Order* stated that section 706 authority only would be used to regulate “communication by wire or radio,” consistent with sections 1 and 2 of the Communications Act.⁹⁸⁴ Other provisions enacted in the 1996 Act that clearly grant authority to promote competition or network deployment themselves generally address either facilities being used to engage in communications or the communications themselves, however.⁹⁸⁵ Thus, applying section 706 of the 1996 Act only to communication by wire or radio would not prevent the Commission from replicating such requirements. In addition, broadband Internet access service itself involves communications by wire or radio—as do many other Internet information services. Consequently, this Commission guidance also does not resolve tensions between the Commission’s prior theory of section 706 authority and the 1996 Act’s general deregulatory approach to information services or section 230’s enunciation of the federal policy “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.”⁹⁸⁶

⁹⁸³ See, e.g., CenturyLink Comments at 41; CEI Comments at 4; Washington Legal Foundation Comments at 7-8; Alamo Reply at 10-11; Coalition of 83 Organizations *et al.* Reply at 1.

⁹⁸⁴ *Open Internet Order*, 25 FCC Rcd at 121. Court precedent has interpreted facilities or equipment within the scope of Title I of the Act to grant “at most, . . . general authority . . . to regulate apparatus used for the receipt of radio or wire communication while those apparatus are engaged in communication.” *American Library Ass’n v. FCC*, 406 F.3d 689, 704 (D.C. Cir. 2005) cited in *Verizon*, 740 F.3d at 640.

⁹⁸⁵ For example, a number of the provisions enacted in the 1996 Act directly address the manner in which entities are required or allowed to provide or charge for communications services. See, e.g., 47 U.S.C. § 214(e)(1) (duty of eligible telecommunications carriers to offer and advertise services supported by federal universal service support mechanisms); *id.*, § 251(b)(1) (resale of local exchange carriers’ telecommunications services); *id.*, § 251(b)(2) (local number portability); *id.*, § 251(b)(3) (dialing parity); *id.*, § 251(b)(5) (reciprocal compensation for the transport and termination of telecommunications); *id.*, § 251(c)(4) (resale of incumbent local exchange carriers’ retail telecommunications services); *id.*, § 254(k) (prohibiting telecommunications carriers from subsidizing competitive services with services not subject to competition); *id.*, § 271(c)(1)(B) (requiring the offering of various transmission services to competitors as a condition of BOCs provide in-region long distance services); *id.*, § 652 (restricting the ability of local exchange carriers and their affiliates from providing video service through the acquisition cable operators in the carriers’ telephone service area, and vice versa). Various other provisions regulate access to facilities being used for the transmission of communications. See, e.g., 47 U.S.C. § 224 (requiring certain specified utilities to provide access to poles, ducts, conduit and rights-of-way); *id.*, § 251(a) (requiring telecommunications carriers to interconnect their networks with other telecommunications carriers and restricting the installation of network features and functions that do not comply with certain disability access or interconnection requirements); *id.*, § 251(b)(4) (requiring local exchange carriers to provide access to rights-of-way to competing telecommunications carriers); *id.*, § 251(c)(2) (requiring incumbent local exchange carriers to interconnect with requesting telecommunications carriers); *id.*, § 251(c)(3) (requiring incumbent local exchange carriers to provide unbundled access to their networks to requesting telecommunications carriers); *id.*, § 251(c)(5) (requiring incumbent local exchange carriers to provide notice of changes in their networks necessary for transmission and routing using those networks); *id.*, § 251(c)(6) (requiring incumbent local exchange carriers to allow collocation of equipment necessary to allow interconnection or access to unbundled network elements); *id.*, § 259 (providing for regulation of incumbent local exchange carriers to provide access to public switched network infrastructure under certain circumstances); *id.*, § 271(c)(1)(B) (requiring the offering of access to facilities to competitors as a condition of BOCs providing in-region long distance services).

⁹⁸⁶ 47 U.S.C. § 230(b)(2).

272. Nor are the specific, problematic implications we identify with the Commission's prior interpretation of section 706 as a grant of authority avoided by the Commission's explanation that its use of such authority must encourage the deployment of advanced telecommunications capability by promoting competition or removing barriers to infrastructure investment.⁹⁸⁷ Given the already-recognized nexus between the relevant Communications Act provisions and the promotion of network deployment and/or local competition, the record provides no reason to believe the Commission would have difficulty demonstrating at least an indirect effect on the deployment of advanced telecommunications capability should it wish, as a policy matter, to impose equivalent requirements under an assertion of authority under section 706(a) and (b) without adhering to limitations or constraints present in the Communications Act provisions.⁹⁸⁸ Likewise, the *Open Internet Order* shows that the Commission can readily find that criterion met in order to regulate an information service like broadband Internet access service notwithstanding the 1996 Act's general deregulatory approach for information service and the deregulatory Internet policy specified in section 230 of the Act.⁹⁸⁹

273. Guidance in the *Open Internet Order* also asserted that the exercise of section 706 authority could not be "inconsistent with other provisions of law,"⁹⁹⁰ but effectively viewed that as a very low bar to satisfy, finding it reasonable to exercise section 706 authority to impose duties on information service providers that did not meaningfully "differ[] from the nondiscrimination standard applied to common carriers generally."⁹⁹¹ So long as regulations fall outside the constraints of sections 3(51) and 332(c)(2) of the Act—upon which the reversal in *Verizon* was based—neither precedent nor the record here demonstrate that the reference to ensuring that any section 706 authority be exercised "[c]onsistent with other provisions of law" would meaningfully preclude the types of requirements that we find difficult to square with the carefully tailored authority in the Communications Act.⁹⁹²

⁹⁸⁷ *Open Internet Order*, 25 FCC Rcd at 17970, para. 121.

⁹⁸⁸ See *Verizon*, 740 F.3d at 640. Perhaps if the Commission required a tighter connection between a given regulatory action and promoting deployment of advanced telecommunications capability, it might reduce the magnitude of the inconsistency somewhat, but the record does not reveal that such an approach would eliminate it entirely or even diminish it to such an extent as to materially strengthen the argument for interpreting the relevant provisions of section 706(a) and (b) as grants of regulatory authority. See, e.g., AT&T Comments at 104-06 (discussing how the Commission should limit its exercise of section 706 authority). Such proposals also do not address the other reasons for viewing sections 706(a) and (b) as hortatory in light of the statutory text and structure.

⁹⁸⁹ See, e.g., *Open Internet Order*, 25 FCC Rcd at 17968, 17972, paras. 117, 123.

⁹⁹⁰ *Open Internet Order*, 25 FCC Rcd at 17969, para. 119.

⁹⁹¹ *Verizon*, 740 F.3d at 656. The *Title II Order* continued to hold out the possibility that the interpretative canon that "the specific governs the general" might allow the use of section 706 of the 1996 Act as authority to independently impose requirements already addressed by the Communications Act or other statutory provisions, in that regard suggesting questions about whether section 706 of the 1996 Act necessarily would even be viewed as the more general provision. See, e.g., *Title II Order*, 30 FCC Rcd at 5822, 5828-29, 5830, 5833-34, 5835, paras. 465 n.1392, 474 n.1434, 476 n.1440, 485 n.1460, 487 n.1468.

⁹⁹² *Open Internet Order*, 25 FCC Rcd at 17969, para. 119. Conversely, if the fact that a matter is addressed by the Communications Act were a more serious constraint on claimed section 706(a) and (b) authority, it is unclear how meaningful such claimed authority would be in practice. It thus likewise would be unclear what affirmative reason we would have for interpreting them as grants of authority contrary to the other indicia that they are hortatory. For example, sections 201(b) and 202(a) of the Act prohibit unjust and unreasonable rates and practices and unjust and unreasonable discrimination with respect to common carrier services. 47 U.S.C. §§ 201(b), 202(a). If that precluded reliance on section 706(a) and (b) to impose analogous restrictions unbounded by the self-described scope of sections 201(b) and 202(a), the Commission seemingly would be left with no authority to adopt conduct rules of the sort at issue here after reclassification. See *Title II Order*, 30 FCC Rcd at 5724-25, paras. 283-84 (finding that conduct rules for broadband Internet access service when classified as a telecommunications service were justified as an implementation of sections 201 and 202 of the Act). Nor do commenters citing other possible uses of section 706(a) and (b) as authority explain how such exercise of authority could be reconciled with the view that it would be

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274. We also are unpersuaded by the *Open Internet Order*'s citation of legislative history to support its interpretation of section 706(a) and (b) as grants of regulatory authority. The *Open Internet Order* cited a Senate report for the proposition that those provisions of section 706 "are 'a necessary fail-safe' to guarantee that Congress's objective is reached."⁹⁹³ The Commission itself previously noted the ambiguous significance of that language.⁹⁹⁴ In addition, the relevant Senate bill at the time of the Senate report would have directed the Commission, in the event of a negative finding in its deployment inquiry, to "take immediate action *under this section*" and stated that "it may preempt State commissions that fail to act to ensure such availability."⁹⁹⁵ The final, enacted version of section 706(b), by contrast, omitted the language "under this section," and also omitted the express preemption language, leaving it ambiguous whether the statement in the Senate report was premised on statutory language excluded from the enacted provision.⁹⁹⁶ For its part, the conference report neither repeats the "fail-safe" language from the Senate report nor elaborates on the modifications made to the language in the Senate bill.⁹⁹⁷ Even if it were appropriate to consult legislative history, we conclude that that history is ultimately ambiguous and are not persuaded that it supports interpreting section 706(a) and (b) of the 1996 Act as grants of regulatory authority.

275. The inability to impose penalties to enforce violations of requirements adopted under section 706(a) and (b) of the 1996 Act also undercuts arguments that those provisions should be interpreted as grants of regulatory authority.⁹⁹⁸ Section 706 of the 1996 Act was not incorporated into the Communications Act,⁹⁹⁹ nor does the 1996 Act provide for it to be enforced as part of the

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a serious constraint on claimed section 706(a) and (b) authority if a matter is addressed by the Communications Act (such as in sections 201 and 202, the market-opening provisions in sections 251-261, provisions designed to address barriers to infrastructure deployment like sections 224 and 254, or other provisions). *See, e.g.*, ACLP Comments at 28 (discussing potential use of section 706 to address harms caused by edge providers); Black Women's Roundtable Comments at 5, 6-7 (discussing potential use of section 706 to address redlining and to provide universal service support for broadband Internet access service); Cogent Comments at 22 (discussing potential use of section 706 to address Internet interconnection). Thus, interpreting the Communications Act as a more serious constraint might partially address one basis for interpreting section 706(a) and (b) as hortatory, but simultaneously would undercut the arguments in the record for interpreting them as grants of authority.

⁹⁹³ *Open Internet Order*, 25 FCC Rcd at 17969-70, para. 120 (quoting S. Rep. No. 104-23, at 50-51 (Mar. 30, 1995)), quoted in *Verizon v. FCC*, 740 F.3d at 639.

⁹⁹⁴ *Advanced Services Order*, 13 FCC Rcd at 24046, para. 75.

⁹⁹⁵ S. 652, § 304(b) (reported in the Senate, Mar. 30, 1995, emphasis added).

⁹⁹⁶ 47 U.S.C. § 1302(b); *see also, e.g.*, Tech Freedom/ICLE 2014 Comments at 79 ("Beyond the Senate committee report, there is essentially no discussion of Section 706 in the legislative history. This would be bizarre if, indeed, Section 706 were intended to be alternative to the rest of the Act as a basis for regulation (even without trumping specific provisions of the Act).").

⁹⁹⁷ H.R. Conf. Rep. No. 104-458, at 224-25 (Jan. 31, 1996); *see also, e.g.*, Free State Foundation Comments at 36 ("You would have to believe that a Republican Congress with a deregulatory mandate inserted very vague language into the statute to give complete authority over the Internet and broadband to the FCC, but then didn't tell a soul. It didn't show up in the writings, it didn't show up in the summaries. It didn't show up in any of the stories at the time." (quoting speech by Commissioner O'Rielly)).

⁹⁹⁸ *See, e.g.*, Free State Foundation Comments at 36 ("You would have to believe that the conference committee intended to codify Section 706 outside of the Communications Act, thereby separating it from the enforcement provisions of the Act, Title V, but somehow we still expected it to be enforced. [The Communications Act was not amended to include Section 706.]" (quoting speech by Commissioner O'Rielly)); Furchtgott-Roth/Washington Legal Foundation Brief at 13-14 ("Section 706 similarly fails to grant FCC the authority to enforce compliance by requiring payment for noncompliance.").

⁹⁹⁹ *See, e.g.*, Telecommunications Act of 1996, § 1(b) ("Except as otherwise expressly provided, whenever in this Act an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the

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Communications Act.¹⁰⁰⁰ Thus, the Communications Act provisions generally authorizing penalties do not apply to section 706 of the 1996 Act or rules adopted thereunder.¹⁰⁰¹ Although the *Title II Order* claimed that section 706 of the 1996 Act included an implicit grant of enforcement authority,¹⁰⁰² even under that theory, an ‘implicit’ grant of enforcement authority might enable actions like declaratory rulings or cease-and-desist orders, but would not appear to encompass authority to impose penalties given the absence of statutory language clearly granting that authority.¹⁰⁰³ As a fallback, the *Title II Order* asserted, without elaboration, that by relying on the grant of rulemaking authority in section 4(i) of the Communications Act to adopt rules implementing section 706 of the 1996 Act, the resulting rules would be within the scope of those for which forfeitures could be imposed under the Communications Act.¹⁰⁰⁴

276. We believe that the better view is that reliance on the Communications Act for rulemaking authority alone would not render the resulting rules “issued by the Commission under [the Communications] Act” as required to trigger the forfeiture provisions of section 503 of the Act. Given that section 503 is about enforcement consequences from violating standards of conduct specified by, among other things, relevant Commission rules, we think that language is best read as focused on rules implementing the Commission’s substantive regulatory authority under the Communications Act. Insofar as the substantive standard to which an entity is being held flows not from the Communications Act but from the Commission’s assertion of authority under the 1996 Act, we believe that our forfeiture authority

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reference shall be considered to be made to a section or other provision of the Communications Act of 1934 (47 U.S.C. 151 et seq.)”); *id.* § 706 (adopting section 706 without any “amendment to, or repeal of, a section or other provision”); Broadband Data Improvement Act, Pub. L. No. 110-385 (2008), § 103 (modifying the section 706 inquiry process by amending “Section 706 of the Telecommunications Act of 1996” (emphasis added)). Although the *Verizon* court, in addition to other reasoning, referenced the statement in *Iowa Utils. Bd.* that “Congress expressly directed that the 1996 Act . . . be inserted into the Communications Act,” that case dealt only with provisions of the 1996 Act that were expressly inserted into the Communications Act. *See Verizon*, 740 F.3d at 650 (quoting *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366, 377 (1999)).

¹⁰⁰⁰ Where Congress intended a statute outside the Communications Act to be enforced as if it were part of the Communications Act, it has expressly stated that in the relevant statute. *See, e.g.*, Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, 126 STAT. 156, Title VI, § 6003 (2012) (“The Commission shall implement and enforce this title as if this title is a part of the Communications Act of 1934 (47 U.S.C. 151 et seq.). A violation of this title, or a regulation promulgated under this title, shall be considered to be a violation of the Communications Act of 1934, or a regulation promulgated under such Act, respectively.”); NET 911 Improvement Act of 2008, Pub. L. No. 110-283, 122 STAT. 2620, § 101 (2008) (amending the Wireless Communications and Public Safety Act of 1999 to add a new section 6 and providing in section 6(e)(2): “The Commission shall enforce this section as if this section was a part of the Communications Act of 1934. For purposes of this section, any violations of this section, or any regulations promulgated under this section, shall be considered to be a violation of the Communications Act of 1934 or a regulation promulgated under that Act, respectively.”); CAN-SPAM Act of 2003, Pub. L. No. 108-187, 117 STAT. 2699, § 7(b)(10) (2003) (“Compliance with this Act shall be enforced-- . . . under the Communications Act of 1934 (47 U.S.C. 151 et seq.) by the Federal Communications Commission with respect to any person subject to the provisions of that Act.”).

¹⁰⁰¹ In pertinent part, to enforce rules under section 503(b)(1) of the Communications Act, the rules must be “issued by the Commission under [the Communications] Act.” 47 U.S.C. § 503(b)(1). Other penalty provisions in the Communications Act are specific to narrower topics or the statutory section in which they appear, and thus also would not be authorized penalties for violations of rules implementing section 706 of the 1996 Act. *See, e.g.*, 47 U.S.C. §§ 202(c), 203(e), 205(b), 214(d), 219(b), 220(d), 223(b), 362(a), 362(b), 386(a), 386(b), 507, 554.

¹⁰⁰² *Title II Order*, 30 FCC Rcd at 5731, para. 298.

¹⁰⁰³ *See, e.g., Gold Kist, Inc. v. Dept. of Ag.*, 741 F.2d 344, 347-48 (11th Cir. 1984) (discussing precedent and “hold[ing] that the statute must plainly establish a penal sanction in order for the agency to have authority to impose a penalty but that an agency has broad administrative powers to impose administrative sanctions that are not penalties as long as the sanctions are reasonably related to the purpose of the enabling statute”).

¹⁰⁰⁴ *Title II Order*, 30 FCC Rcd at 5731, para. 298 n.769.

under section 503 of the Communications Act consequently would not encompass such rules. The practical inability to back up rules implementing section 706 with penalties thus undercuts the *Open Internet Order*'s claim that its interpretation would mean that section 706 of the 1996 Act could serve as a "'fail safe' that 'ensures' the Commission's ability to promote advanced services."¹⁰⁰⁵ Under our interpretation, by contrast, section 706(a) and (b) of the 1996 Act exhort the Commission to use Communications Act authority that it does, in fact, have authority to enforce through penalties. We thus are persuaded that section 706(a) and (b) of the 1996 Act are better interpreted as hortatory, rather than as grants of regulatory authority.¹⁰⁰⁶

277. Our conclusion that section 706 of the 1996 Act is better read as hortatory is not at odds with the fact that two courts concluded that the Commission permissibly could adopt the alternative view that it is a grant of regulatory authority. Those courts did not find that the Commission's previous reading was the only (or even the most) reasonable interpretation of section 706, leaving the Commission free to adopt a different interpretation upon further consideration.¹⁰⁰⁷ Indeed, the D.C. Circuit in *Verizon* observed that the language of section 706(a) "certainly could be read" as hortatory.¹⁰⁰⁸ The court also recognized as much with respect to section 706(b), given its lack of clarity.¹⁰⁰⁹ Those cases thus leave us free to act on our conclusion here that section 706 is most reasonably read as hortatory, not as an independent grant of regulatory authority.

278. We also disagree with arguments that we should keep in place a misguided and flawed interpretation of section 706(a) and (b) of the 1996 Act to preserve any existing rules or our ability going forward to take regulatory action based on such assertions of authority. We are not persuaded by concerns that reinterpreting section 706(a) and (b) of the 1996 Act in this manner could undercut Commission rules adopted in other contexts because such arguments do not identify circumstances—nor are we otherwise aware of any—where the prior interpretation of the relevant provisions of section 706(a) and/or (b) was, in whole or in part, a necessary basis for the rules.¹⁰¹⁰ We also are unpersuaded by arguments for maintaining the prior interpretation in a general effort to retain greater authority to regulate

¹⁰⁰⁵ *Open Internet Order*, 25 FCC Rcd at 17969-70, para. 120.

¹⁰⁰⁶ Because we otherwise find ample grounds to conclude that section 706(a) and (b) of the 1996 Act are not grants of regulatory authority, we need not, and thus do not, address arguments claiming additional reasons to reach that same conclusion. *See, e.g.*, CEI Comments at 3-4; Free State Foundation Comments at 35; Furchtgott-Roth/Washington Legal Foundation Brief at 1; Interisle Comments at 10; Tech Freedom/ICLE 2014 Comments at 73-74; Washington Legal Foundation Comments at 8-9; Alamo Reply at 9-10; TechFreedom/ALEC Reply at 7-9. Likewise, because we conclude that section 706(a) and (b) do not grant regulatory authority at all, we need not, and do not, address the issue of whether any authority under those provisions is, at most, deregulatory authority. *See, e.g.*, Citizens Against Government Waste Comments at 5-7; New America Foundation Comments at 23; Tech Freedom/ICLE 2014 Comments at 75-76; Alamo Reply, Attach. at 15. We also reject arguments that we should wait on the completion of the latest inquiry under section 706(b) before evaluating the interpretation of section 706. *See, e.g.*, New America Foundation Reply at 21-22. Under the prior interpretation, section 706(a) was a grant of authority independent of section 706(b), and particularly insofar as we would not interpret section 706(b) as a grant of authority in any case, we see no reason to wait on the results of the inquiry under that provision.

¹⁰⁰⁷ *See, e.g.*, *USTelecom*, 825 F.3d at 733-34; *In re FCC11-161*, 753 F.3d 1049-54; *Verizon*, 740 F.3d at 636-42.

¹⁰⁰⁸ *Verizon*, 740 F.3d at 637.

¹⁰⁰⁹ *Id.* at 641.

¹⁰¹⁰ *See, e.g.*, Public Knowledge/Common Cause Comments at 63; American Association of Community Colleges *et al.* Reply at 11; Cogent Reply at 11. Similarly, concerns that our interpretation will limit states' regulatory authority do not identify with specificity any concrete need for such authority beyond any authority provided by state law, even assuming *arguendo* that such authority could have flowed from the prior interpretation of section 706(a). *See, e.g.*, California PUC Comments at 33.

ISPs.¹⁰¹¹ Given that agencies like the Commission are creatures of Congress,¹⁰¹² and given our responsibility to bring to bear appropriate tools when interpreting and implementing the statutes we administer,¹⁰¹³ we find it more appropriate to adopt what we view as the far better interpretation of section 706(a) and (b) given both the specific context of section 706 and the broader statutory context. If Congress wishes to give the Commission more explicit direction to impose certain conduct rules on ISPs, or to impose such rules itself within constitutional limits, it is of course free to do so. We decline to read such wide-ranging authority, however, into provisions that, on our reading today, are merely hortatory, and are at best ambiguous.¹⁰¹⁴

279. Independently, we also are not persuaded that the prior interpretation of section 706(a) and (b) of the 1996 Act would better advance policy goals relevant here. We have other sources of authority on which to ground our transparency requirements without adopting an inferior interpretation of section 706(a) and (b). With respect to conduct rules, in addition to our decision that limits on our legal authority counsel against adopting such rules, we separately find that such rules are not otherwise justified by the record here. Consequently, we need not stretch the words of section 706 of the 1996 Act because we can protect Internet freedom even without it. Rather, we are persuaded to act in the manner that we believe reflects the best interpretation given the text and structure of the Act, the legislative history, and the policy implications of alternative interpretations.

b. Section 230 of the Communications Act

280. We are not persuaded that section 230 of the Communications Act grants the Commission authority that could provide the basis for conduct rules here. In *Comcast*, the D.C. Circuit observed that the Commission there “acknowledge[d] that section 230(b)” is a “statement [] of policy that [itself] delegate[s] no regulatory authority.”¹⁰¹⁵ Although the *NPRM* sought comment on section 230, the record does not reveal an alternative interpretation that would enable us to rely on it as a grant of

¹⁰¹¹ See, e.g., Akamai Comments at 13 (The *NPRM* “neither points to changed circumstances nor articulates any explanation for such a changed interpretation [of section 706], either as a general matter or—as relevant to this proceeding—consistent with the Commission’s ‘commitment to a free and open Internet.’”); Entertainment Software Association Comments at 15 (same); New America Foundation Comments at 22 (“For instance, today’s FCC could interpret it as hortatory, but a future FCC, if it so chose, could reverse that decision. Thus, the exercise is futile. Reinterpreting Section 706 would be essentially arbitrary, and the Commission should instead focus on protecting consumers from harmful and anticompetitive conduct.”); Level 3 Comments at 14 (“In the absence of Congressional action, however, the Notice’s proposal to reclassify consumer Internet access service as an information service, if coupled with a decision to interpret Section 706 of the 1996 Act as hortatory rather than a grant of substantive authority, brings substantial risk for the internet ecosystem and the public.”); Public Knowledge/Common Cause Comments at 62 (“Thus, a minimizing interpretation of Section 706 does not give the Commission a means to pull the statutory rug out from under pro-consumer and pro-competitive rules under an air of legal inevitability. For example, the Commission cannot lament that it would like to enact certain privacy, transparency, or universal service rules, if only Congress would grant it the authority to do so—because Congress already has given it all the authority it needs. It would be arbitrary and capricious for the Commission to gut existing rules by claiming a lack of legal authority that has already been found to exist.”).

¹⁰¹² See, e.g., *Louisiana Pub. Serv. Comm’n v. FCC*, 476 U.S. 355, 374 (1986) (“[A]n agency literally has no power to act . . . unless and until Congress confers power upon it.”).

¹⁰¹³ See, e.g., *Utility Air Regulatory Group v. EPA*, 134 S. Ct. 2427, 2442 (2014) (When interpreting a statute we administer, “[e]ven under *Chevron*’s deferential framework, agencies must operate within the bounds of reasonable interpretation. And reasonable statutory interpretation must account for both the specific context in which . . . language is used and the broader context of the statute as a whole.” (citation and internal quotation marks omitted)).

¹⁰¹⁴ See, e.g., *Whitman v. Am. Trucking Ass’n*, 531 U.S. 457, 468, (2001) (“Congress . . . does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions—it does not, one might say, hide elephants in mouseholes.”).

¹⁰¹⁵ *Comcast*, 600 F.3d at 652.

regulatory authority for rules here.¹⁰¹⁶ Instead, we remain persuaded that section 230(b) is hortatory, directing the Commission to adhere to the policies specified in that provision when otherwise exercising our authority. In addition, even assuming *arguendo* that section 230 could be viewed as a grant of Commission authority, we are not persuaded it could be invoked to impose regulatory obligations on ISPs. In particular, section 230(b)(2) provides that it is U.S. policy “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.”¹⁰¹⁷ Adopting requirements that would impose federal regulation on broadband Internet access service would be in tension with that policy, and we thus are skeptical such requirements could be justified by section 230 even if it were a grant of authority as relevant here. Consequently, although section 230 is relevant to our interpretation and implementation of other statutory provisions, the record does not reveal a basis for relying on it as a source of regulatory authority for conduct rules here.

c. Other Provisions in Titles II, III, and VI of the Communications Act

281. Other identified sources of potential authority appear significantly limited and not capable of bringing all ISPs under one comprehensive regulatory framework. The *Open Internet Order* cited provisions in Titles II, III, and VI of the Communications Act in support of the conduct rules adopted there, and some commenters echo those theories—generally without elaboration.¹⁰¹⁸ A number of those assertions of authority appear of uncertain validity on this record. The identified additional sources of potential authority, even collectively, do not appear to provide a sound basis for conduct rules that would encompass all ISPs.¹⁰¹⁹ Further, even as to those ISPs that could be subject to conduct rules under those statutory theories, in many cases the scope of conduct that could be addressed appears quite limited. The result of an attempt to exercise the identified potential authority thus would appear, at best, to result in a patchwork framework that appears unlikely to materially address many of the concerns historically raised to justify conduct rules while being likely to introduce regulatory distortions in the marketplace.

282. *Authority over ISPs That Also Offer Telecommunications Services.* On this record, claims of authority to adopt conduct rules governing ISPs that also offer telecommunications services have many shortcomings. The *Open Internet Order* contended that ISPs that also offer telecommunications services might engage in network management practices or prioritization that reduces competition for their voice services, arguably implicating section 201(b)’s prohibition on unjust or

¹⁰¹⁶ Most arguments in the record regarding section 230 take the position that it does not grant regulatory authority that we could rely on here. *See, e.g.*, AARP Comments at 37; CenturyLink Comments at 40-41; Data Foundry/Golden Frog Comments at 31; New America Foundation Comments at 24; NTCH/Flat Wireless Comments at 5. The few suggestions that it could be such a grant of authority do not develop that theory or explain how the Commission could adopt a different view than that identified in *Comcast*. *See, e.g.*, Internet Association Comments at 18; NCTA Comments at 58.

¹⁰¹⁷ 47 U.S.C. § 230(b)(2).

¹⁰¹⁸ Some comments identified possible sources of authority for rules other than the sorts of conduct rules at issue in this proceeding, and we do not discuss such other sources of authority here. *See, e.g.*, CenturyLink Comments at 54-55 (speculating about possible authority to impose public safety-related requirements on broadband Internet access service).

¹⁰¹⁹ We do not formally resolve the potential scope and contours of those claims of authority given the significant limitations in the record here and the potential for unanticipated spill-over effects, but the potential weaknesses—unresolved on this record—nonetheless make us cautious about seeking to rely on them at this time. Insofar as our position regarding these additional potential sources of authority is at least a partial change in course from the positions taken in the *Open Internet Order*—which reflected a broader and/or less questioning view of these theories—we conclude that such a change in course is warranted by our analysis here, which identifies details or nuances in the required analysis that were not adequately addressed in the *Open Internet Order* or resolved on this record.

unreasonable rates or practices in the case of common carrier voice services and/or section 251(a)(1)'s interconnection requirements for common carriers.¹⁰²⁰ The *Open Internet Order* never squares these legal theories with the statutory prohibition on treating telecommunications carriers as common carriers when they are not engaged in the provision of telecommunications service or with the similar restriction on common carrier treatment of private mobile services.¹⁰²¹ That *Order* also is ambiguous whether it is relying on these provisions for direct or ancillary authority. If claiming direct authority, the *Open Internet Order* fails to reconcile its theories with relevant precedent and to address key factual questions.¹⁰²² Even in the more likely case that these represented theories of ancillary authority, the *Open Internet Order*'s failure to forthrightly engage with the theories on those terms leaves it unclear how conduct rules are sufficiently "necessary" to the implementation of section 201 and/or section 251(a)(1) to satisfy the standard for ancillary authority under *Comcast*.¹⁰²³ The limited, indirect references to section 201 and 251(a)(1) authority in the record here do not resolve these questions about possible section 201- or 251(a)(1)-based theories, either.¹⁰²⁴

283. The *Open Internet Order* also noted that section 256 of the Act addresses coordinated network planning related to interconnection, but did not put forward a theory for relying on that as authority for conduct rule.¹⁰²⁵ To the contrary, it cited the holding in *Comcast* "acknowledging Section 256's objective, while adding that Section 256 does not 'expand[] . . . any authority that the

¹⁰²⁰ *Open Internet Order*, 25 FCC Rcd at 17972-74, paras. 125-26.

¹⁰²¹ 47 U.S.C. §§ 153(51), 332(c)(2).

¹⁰²² With respect to section 201, in the *Computer Inquiries*, for example, when the Commission concluded that facilities-based carriers' actions when offering enhanced services might affect the justness and reasonableness of their common carrier offerings under section 201, it responded by exercising ancillary authority, rather than direct authority under section 201. See, e.g., *Comp. & Comms. Indus. Ass'n v. FCC*, 693 F.2d 198, 212-14 (D.C. Cir. 1982). With respect to section 251(a)(1), the Commission has held that that provision only involves the linking of networks and not the transport and termination of traffic. See, e.g., *Total Telecommunications Services, Inc. v. AT&T Corp.*, File No. E-97-003, Memorandum Opinion and Order, 16 FCC Rcd 5726, 5736-38, paras. 22-27 (2001). The *Open Internet Order* does not explain why telecommunications carriers would seek to link their networks with other carriers by delivering traffic through a broadband Internet access service rather than through normal means of direct or indirect interconnection.

¹⁰²³ See generally *Comcast*, 600 F.3d 642.

¹⁰²⁴ See, e.g., Akamai Comments at 14 ("The Commission's 2010 Open Internet Order also pointed to a number of Title II, III, and VI authorities as support for open Internet protections that would further the Commission's statutory responsibilities to promote competition in voice, audio, and video services. These authorities provide additional support particularly for rules that would protect voice, audio, and video service provided over broadband networks in competition with broadband providers' own voice, audio, or video services."); AT&T Comments at 108-09 ("Although the Commission did not elaborate on its rationale, Madison River's efforts to foreclose over-the-top VoIP competition to its regulated interstate telephone services threatened to frustrate the Commission's obligation to ensure that the charges for those services were just and reasonable. . . . More generally, the Commission could invoke ancillary authority to prohibit an ISP from anticompetitively excluding online services that directly compete with its own regulated services whenever doing so 'is necessary to further [the Commission's] regulation of activities over which it [has] express statutory authority' under Titles II, III, or VI."); Entertainment Software Association Comments at 16-17 ("[T]he Commission's 2010 *Open Internet Order* pointed to a number of Title II, III, and VI authorities as support for open Internet protections that would further the Commission's statutory responsibilities to promote competition in voice, audio, and video services. These authorities provide additional support particularly for rules that would protect online voice, audio, and video service that compete with broadband providers' own voice, audio, or video services."); NCTA Comments at 57 ("The Commission also could consider other statutory bases for authority for enforcement in this area. Notably, the 2010 *Open Internet Order* cited various provisions in Titles I, II, III, and VI as possible additional grants of authority on top of its Section 706 authority.")

¹⁰²⁵ *Open Internet Order*, 25 FCC Rcd at 17973-74, para. 126 n.397.

Commission[] otherwise has under law.”¹⁰²⁶ To the extent that commenters here mention section 256 at all, they do not explain how the Commission could overcome that holding in *Comcast* for purposes of relying on that provision as authority for rules here.¹⁰²⁷

284. An alarm company urges us to rely on section 275 of the Act, but we see substantial shortcomings in using as a basis for ancillary authority for conduct rules. Section 275 of the Act imposes certain nondiscrimination requirements on incumbent LECs related to alarm monitoring services, along with restrictions on all LECs’ recording or use of data from calls to alarm monitoring providers for purposes of marketing competing alarm monitoring services.¹⁰²⁸ Arguments that ancillary authority based on section 275 could support rules that prohibit ISPs that also offer alarm monitoring services from blocking or throttling alarm monitoring traffic or engaging in anticompetitive paid prioritization of alarm monitoring traffic are premised on a reading of section 275 as a far broader mandate to protecting alarm monitoring competition than the specifics of its language support.¹⁰²⁹ Given the Commission’s existing ability to directly apply the duties and restrictions of section 275 to the specific entities covered by that section, the record leaves us unable to conclude that the proposed alarm monitoring-related ISP conduct rules are sufficiently “necessary” to our implementation of section 275 to satisfy the standard for ancillary authority under *Comcast*.¹⁰³⁰ Nor does the record demonstrate what basis we have for the proposed exercise of ancillary authority to regulate any ISPs that fall outside the scope of section 275 but that offer alarm monitoring services.¹⁰³¹

285. *Authority With Respect to Audio and Video.* The *Open Internet Order*’s theories of authority related to Commission oversight of audio and video offerings have significant deficiencies, as well. In that *Order*, the Commission argued that because local television stations and radio stations distributed their content over the Internet, actions by ISPs to block, degrade, or charge unreasonable fees for carrying such traffic would interfere with certain statutory responsibilities.¹⁰³² Once again, the Commission was unclear whether it was asserting direct or ancillary authority. The *Open Internet Order* cited policy pronouncements from provisions of the Act and associated precedent without any clear indication how the underlying authority directly applied to ISPs’ conduct.¹⁰³³ To the extent that the *Open*

¹⁰²⁶ *Id.* (quoting *Comcast*, 600 F.3d at 659).

¹⁰²⁷ *See, e.g.*, NCTA Comments at 58.

¹⁰²⁸ 47 U.S.C. § 275(b), (c). In addition, section 275(a) initially restricted BOCs’ provision of alarm monitoring services until 2001. 47 U.S.C. § 275(a).

¹⁰²⁹ *Compare* Letter from Michael H. Pryor, counsel for ADT, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-108, Attach. at 5 (filed Oct. 11, 2017) (“Section 275 confers a statutorily mandated responsibility on the Commission to protect independent alarm monitoring services from discrimination by network providers offering competing alarm services.”) with 47 U.S.C. § 275(a), (b), (c) (restricting BOC provision of alarm monitoring until 2001, imposing specific nondiscrimination requirements on incumbent LECs, and restricting marketing of competing alarm monitoring services by LECs using alarm monitoring calls).

¹⁰³⁰ *See generally Comcast*, 600 F.3d 642.

¹⁰³¹ *See, e.g., EchoStar Satellite LLC v. FCC*, 704 F.3d 992, 999 (D.C. Cir. 2013) (“The FCC is powerless to wield its ancillary jurisdiction, however, where ‘there are strong indications that agency flexibility was to be sharply delimited.’ Section 624A’s textual delegation of authority to regulate cable systems, as opposed to all MVPDs, is precisely such an indication.” (citation omitted)).

¹⁰³² *Open Internet Order*, 25 FCC Rcd at 17975, para. 128.

¹⁰³³ For example, the Commission cited sections 303(f) and (h) of the Act as “establishing the Commission’s authority to allocate broadcasting zones or areas and to promulgate regulations ‘as it may deem necessary’ to prevent interference among stations” without explaining how the ISP conduct rules directly involved the allocation of broadcasting zones or areas or interference among stations. *See* 47 U.S.C. § 303(f), (h) cited in *Open Internet Order*, 25 FCC Rcd at 17975, para. 128 n.402. The Commission also cited section 307(g), which appears to contemplate the use of licensing to promote the “fair, efficient, and equitable distribution of radio service,” and *Nat’l*

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Internet Order was claiming ancillary authority, its failure to forthrightly engage with an ancillary authority theory again leaves it unclear how conduct rules are sufficiently “necessary” to its implementation of these provisions to satisfy the standard for ancillary authority under *Comcast*,¹⁰³⁴ nor are these issues adequately addressed by the limited references to this potential authority in the record.¹⁰³⁵

286. We find significant limitations to the *Open Internet Order*’s theories based on direct authority under Title VI of the Act, as well. The Commission contended in the *Open Internet Order* that “MVPD practices that discriminatorily impede” competing online video are a “related practice” to video program carriage agreements and thus subject to the restrictions in section 616(a) of the Act.¹⁰³⁶ That expansive view of a “related practice” seems challenging to square with the overall structure and approach of section 616, which is focused on facilitating program carriage agreements between video programming vendors and MVPDs. But the *Open Internet Order* suggests that an MVPD/ISP could violate rules implementing section 616(a) with respect to the programming of a video programming vendor that never even sought a program carriage agreement with that MVPD. In such cases, there appears to be no actual or potential program carriage agreement to which the MVPD/ISP’s conduct would be a “related practice[.]”¹⁰³⁷ Neither the *Open Internet Order* nor the record here provides a response enabling us to address these concerns.¹⁰³⁸

287. The *Open Internet Order*’s legal theory under section 628 of the Act also appears to have substantial shortcomings. The *Open Internet Order* contended that “[a] cable or telephone company’s interference with online transmission of programming by DBS operators or stand-alone online video programming aggregators that may function as competitive alternatives to traditional MVPDs would frustrate Congress’s stated goals in enacting Section 628 of the Act” and “[t]he Commission therefore is authorized to adopt open Internet rules under Section 628(b), (c)(1), and (j).”¹⁰³⁹ Under the terms of the statute, that at most could restrict such entities’ conduct if it constitutes “unfair or deceptive acts or practices the purpose or effect of which is to prevent or hinder significantly the ability of an MVPD to deliver satellite cable programming or satellite broadcast programming.”¹⁰⁴⁰ The cursory discussion in the *Open Internet Order*, while suggesting that ISP practices could have some effect on the viability of stand-alone MVPDs like DISH, does not provide any meaningful explanation why particular conduct would rise to the level of “prevent[ing] or significantly hinder[ing]” DISH (or others) from being able to

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Broad. Co., which was a case involving the Commission’s promotion of the “more effective use of radio” through chain broadcasting rules covered by an express grant of authority in section 303(i). See 47 U.S.C. § 307(g) and *Nat’l Broad. Co. v. U.S.*, 319 U.S. 190 (1943) cited in *Open Internet Order*, 25 FCC Rcd at 17975, para. 128 & n.403. However, the conduct rules were not limited to licensing of video or audio service providers and did not purport to address a matter expressly addressed by a grant of authority in section 303 like section 303(i). The Commission also cited *Southwest Cable*, which was a case about the FCC’s ancillary authority. See *United States v. Sw. Cable Co.*, 392 U.S. 157 (1968) cited in *Open Internet Order*, 25 FCC Rcd at 17975, para. 128 n.402.

¹⁰³⁴ See generally *Comcast*, 600 F.3d 642.

¹⁰³⁵ See *supra* note 1024.

¹⁰³⁶ *Open Internet Order*, 25 FCC Rcd at 17978, para. 132.

¹⁰³⁷ 47 U.S.C. § 536(a). To the contrary, the broader structure of section 616(a) seems to contemplate that there would be some effort by the video programming vendor to obtain carriage, subject to the possibility of a complaint. See *id.*

¹⁰³⁸ See *supra* note 1024.

¹⁰³⁹ *Open Internet Order*, 25 FCC Rcd at 17975-76, 178-79, paras. 129, 131.

¹⁰⁴⁰ 47 U.S.C. § 548(b).

deliver satellite cable programming or satellite broadcast programming.¹⁰⁴¹ The minimal discussion of this Title VI authority in the record here does not remedy that shortcoming either.¹⁰⁴²

288. *Authority With Respect to Wireless Licensees.* Although the Commission could rely on Title III licensing authority to support conduct rules as it has in the past,¹⁰⁴³ that historical approach would result in disparate treatment of ISPs, enabling conduct rules encompassing wireless ISPs, but not wireline ISPs.¹⁰⁴⁴ For the reasons set forth below, we decline to adopt a patchwork of rules that subjects different categories of ISPs to different treatment.¹⁰⁴⁵ In addition, applying conduct rules just to such providers would have the anomalous result of more heavily regulating providers that face among the most competitive marketplace conditions.¹⁰⁴⁶

d. Our Evaluation of Possible Authority for Conduct Rules Confirms That Such Rules Are Inappropriate

289. Our analyses of potential theories of legal authority for conduct rules (other than Title II authority relied upon in the *Title II Order*) persuades us on the record here that ISP conduct rules are unwarranted.¹⁰⁴⁷ The two provisions most directly on point—section 706 of the 1996 Act and section

¹⁰⁴¹ Although the D.C. Circuit has accepted the possibility that “an MVPD’s lack of commercial attractiveness [could] prevent or significantly hinder it from providing satellite programming,” it anticipated the Commission acting on the basis of “evidence that [the relevant conduct] ‘hinder[s] significantly,’ . . . an MVPD from competing with the incumbent cable operator to deliver satellite programming to customers,” for example. *Cablevision Systems Corp. v. FCC*, 649 F.3d 695, 708, 709 (D.C. Cir. 2011).

¹⁰⁴² See *supra* note 1024.

¹⁰⁴³ See, e.g., Akamai Comments at 13; Digital Policy Institute, Attach. 3 Entertainment Software Association Comments at 16; Catherine Sandoval Reply, Attach. April 26, 2010 Reply, GN Docket No. 09-191, WC Docket No. 07-52 at 9-10.

¹⁰⁴⁴ See, e.g., Akamai Comments at 13 (“With respect to mobile broadband service, for example, the Commission can rely on what the Supreme Court has described as its ‘expansive powers’ to license spectrum under Title III of the Communications Act.”); Digital Policy Institute, Attach. 3 Entertainment Software Association Comments at 16 (same); Catherine Sandoval Reply, Attach. April 26, 2010 Reply, GN Docket No. 09-191, WC Docket No. 07-52 at 9-10 (“The FCC need not resort to ancillary jurisdiction to regulate wireless ISPs as it specifically reserved direct jurisdiction over wireless ISPs under Title III’s licensing conditions and rules.”).

¹⁰⁴⁵ See *supra* Part IV.B.3.d.

¹⁰⁴⁶ See, e.g., Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, Including Commercial Mobile Services, WT Docket No. 17-69, Twentieth Report, FCC 17-126, paras. 93-94 (rel. Sept. 27, 2017) (concluding that there is effective competition for mobile wireless services).

¹⁰⁴⁷ Because we decline to adopt conduct rules here, we need not reach the arguments in the record that imposing such rules on ISPs would violate the First Amendment. See, e.g., Furchtgott-Roth/Washington Legal Foundation Comments at 6-10; R Street Comments at 19-20; Geoffrey A. Manne *et al.*, *A Conflict of Visions: How the “21st Century First Amendment” Violates the Constitution’s First Amendment*, 13 First Amend. L. Rev. 319, 343-45 (2015) *cited in* R Street Comments at 19 n.68; Tech Knowledge Comments, Attach., 94 Neb. L. Rev. 559, 601-15 (2016); Alamo Reply, Attach. at 7-8; Brent Skorup/Mercatus Center Reply at 10-13. We are unpersuaded by the suggestion that allowing ISPs to enter paid prioritization arrangements, even if subject to a commercial reasonableness standard, would trigger First Amendment scrutiny as a restriction on entities wishing to transmit speech on the Internet. See, e.g., Catherine Sandoval Aug. 30, 2017 *Ex Parte* Letter, Exh. C at 5-6. The failure to restrict ISPs’ actions through conduct rules does not require ISPs to act in any particular manner, and those arguments do not reveal why allowing ISPs to decide whether and when to enter paid prioritization arrangements would constitute state action triggering the First Amendment. See, e.g., *Loce v. Time Warner Entertainment Advance/Newhouse Partnership*, 191 F.3d 256, 266 (2d Cir. 1999) (“The First Amendment applies only to state actors. In order to establish a First Amendment claim against a private entity based on the entity’s relationship to the state, a plaintiff must demonstrate, inter alia, ‘a sufficiently close nexus between the State and the challenged action of the regulated entity so that the action of the latter may be fairly treated as that of the State itself.’ Such a

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230(b) of the Communications Act—are better read as policy pronouncements rather than grants of regulatory authority.¹⁰⁴⁸ In addition, section 230(b)(2) identifies Congress’ deregulatory policy for the Internet, explaining that “[i]t is 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.”¹⁰⁴⁹ This policy is reinforced by the deregulatory objectives of the 1996 Act more generally.¹⁰⁵⁰ Against that policy backdrop, had Congress wanted us to regulate ISPs’ conduct we find it most likely that they would have spoken to that directly. Thus, the fact that the Commission would be left here to comb through myriad provisions of the Act in an effort to cobble together authority for ISP conduct rules itself leaves us dubious such rules really are within the authority granted by Congress.

290. In addition, the absence of demonstrated statutory authority that could support comprehensive conduct rules would leave us with, at most, a patchwork of non-uniform rules that would have problematic consequences and doubtful value. Virtually all of the remaining sources of possible authority identified in the *Open Internet Order* or the record here would encompass only discrete subsets of ISPs, such as ISPs that otherwise are providing common carrier voice services; ISPs that otherwise are cable operators or MVPDs; or ISPs that hold wireless licenses, among others. Individually, each of these sources of authority would leave substantial segments of ISPs unaddressed by any conduct rules. In addition, most of the remaining sources of authority would, at most, enable the Commission to target narrow types of behaviors, including, among other examples, actions by ISPs that otherwise offer common carrier voice services to interfere with competing over-the-top voice services or actions by certain ISPs that otherwise are video providers that harm the distribution of satellite programming. Importantly, substantial questions also remain on the record here about the merits of most of those theories of legal authority. For example, most if not all wired ISPs would appear to fall outside the scope of any sound basis of authority for conduct rules addressing the theories of harm identified in the *Open Internet*. This would leave substantial portions of the marketplace unaddressed by conduct rules including a number of the largest ISPs.¹⁰⁵¹

291. Imposing conduct rules on only some, but not all, ISPs risks introducing regulation-based market distortions by limiting some ISPs’ ability to participate in the marketplace in a manner equivalent to other ISPs. ISPs subject to conduct rules would be limited in the ways in which they could manage traffic on their networks and/or the commercial arrangements they could enter related to their carriage of traffic beyond the requirements to which other ISPs are subject. As a result, they are likely to face increased network costs and network management challenges and see decreased revenue opportunities from commercial arrangements relative to existing or potential competitors not similarly constrained by

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nexus may be found, for example, where a private actor has operated as a ‘willful participant in joint activity with the State or its agents.’ In the absence of such a nexus, a finding of state action may not be premised on the private entity’s creation, funding, licensing, or regulation by the government. Nor is a private entity a state actor merely because its conduct is authorized by a state law, where its conduct is not compelled by the state.” (citations omitted)).

¹⁰⁴⁸ See *supra* Parts IV.B.3.a, IV.B.3.b.

¹⁰⁴⁹ 47 U.S.C. § 230(b)(2).

¹⁰⁵⁰ See Preamble to the Telecommunications Act of 1996 (“AN ACT To promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies.”).

¹⁰⁵¹ Wired connections accounted for approximately 30% of residential high speed Internet access connections as of December 2016 (FCC Form 477 Subscription Data, December 2016); Hal Singer, *2016 Broadband Capex Survey: Tracking Investment in the Title II Era* (Mar. 1, 2016) (listing the 12 largest ISPs, including a number that are primarily or exclusively wired providers), <https://haljsinger.wordpress.com/2017/03/01/2016-broadband-capex-survey-tracking-investment-in-the-title-ii-era>.

conduct rules.¹⁰⁵² In various contexts, the Commission previously has recognized that such artificial regulatory distinctions can distort the marketplace and undercut competition.¹⁰⁵³ The primary objectives of the 1996 Act are “[t]o promote competition and reduce regulation,”¹⁰⁵⁴ and the Commission likewise has observed that “[c]ompetitive markets are superior mechanisms for protecting consumers by ensuring that goods and services are provided to consumers in the most efficient manner possible and at prices that reflect the cost of production.”¹⁰⁵⁵ Thus, the risk that disparate regulatory treatment under patchwork conduct rules could harm existing or potential competition is a significant concern. Even assuming *arguendo* that the record demonstrated harms for which conduct rules were warranted—which it does not¹⁰⁵⁶—the record does not demonstrate that any incremental benefits from patchwork regulation would outweigh the harm from the resulting potential for marketplace distortions

292. Patchwork conduct rules also would not appear to address many of the theories of harm identified in the *Open Internet Order*. A number of those theories of harm would need to be addressed by comprehensive or near-comprehensive conduct rules.¹⁰⁵⁷ Here, by contrast, substantial segments of the

¹⁰⁵² See, e.g., Cause of Action Institute Comments at 3-4; CEI Comments at 2-3; CenturyLink Comments at 34; Gogo Comments at 6; R Street Institute Comments at 22-25; CTIA Reply at 42-43.

¹⁰⁵³ See, e.g., *Business Data Services In An Internet Protocol Environment, et al.*, Report and Order, 32 FCC Rcd 3459, 3531, para. 158 (2017) (explaining that “disparate forbearance treatment of carriers providing the same or similar services is not in the public interest as it creates distortions in the marketplace that may harm consumers”) *pets. for review pending; Implementation of Section 224 of the Act; A National Broadband Plan for Our Future*, Report and Order and Order on Reconsideration, 26 FCC Rcd 5240, 5317-19, 5320-21, paras. 174-78, 181 (2011) (asserting that competitive disparities arising from telecommunications carriers paying higher pole attachment rates than their cable operator competitors as part of the policy rationale for the telecom rate change adopted there), *aff’d sub. nom. Am. Elec. Power Serv. Corp. v. FCC*, 708 F.3d 183 (D.C. Cir. 2013); *Regulatory Treatment For Broadband Access To the Internet Over Wireless Networks*, Declaratory Ruling, 22 FCC Rcd 5901, 5920, para. 53 (2007) (explaining that interpreting the commercial mobile service definition to encompass information services would lead to disparate treatment relative to telecommunications carriers also offering the same information service and “would introduce competitive distortions into the marketplace,” and “absurd” result that counseled against such an interpretation); *Section 257 Proceeding To Identify and Eliminate Market Entry Barriers For Small Businesses*, Report, 12 FCC Rcd 16802, 16805, para. 3 (1997) (“[T]he Commission has taken a variety of measures to fulfill the four national policy objectives set forth in Section 257(b). First, with respect to ‘vigorous economic competition,’ we have defined the term ‘market entry barrier’ in a manner that facilitates entry by small businesses yet avoids unwarranted regulatory intervention that could distort a competitive marketplace. By including only those impediments that significantly distort market operations and harm consumer welfare within the definition of ‘market entry barriers,’ the Commission has recognized that economically unjustified intervention actually would thwart the policy goal of promoting vigorous competition.” (footnote omitted)); see also, e.g., Comcast Comments at 83 (“In stark contrast to the traditional telecommunications marketplace—where incumbent providers long enjoyed state-sanctioned monopolies—all broadband providers have been ‘new entrants’ over the last two decades and, therefore, they should all be treated alike. In other analogous contexts, the Commission has long recognized that arbitrary technology-based distinctions distort competition and ultimately harm consumers.”); Cox Comments at 28; NCTA Comments at 62 (“[P]arity between fixed and mobile providers is necessary to comport with the Commission’s longstanding commitment to ensuring technological neutrality and thereby avoiding the creation of unwarranted marketplace distortions.”); ACA Reply at 44.

¹⁰⁵⁴ Preamble to the Telecommunications Act of 1996.

¹⁰⁵⁵ *Access Charge Reform, et al.*, CC Docket Nos. 96-262, 94-1, 91-213, 95-72, First Report and Order, 12 FCC Rcd 15982, 16094-95, para. 123 (1997).

¹⁰⁵⁶ See *supra* Part III.C.

¹⁰⁵⁷ Many theories of harm identified in the *Open Internet Order* as justifying conduct rules were premised on harm flowing from the aggregate effects of practices by ISPs broadly. See, e.g., *Open Internet Order*, 25 FCC Rcd at 17920-21, para. 26 (“[I]f edge providers need to negotiate access or prioritized access fees with broadband providers, the resulting transaction costs could further raise the costs of introducing new products and might chill entry and expansion.” (footnote omitted)); *id.* at 17922-23, para. 30 (“[I]f broadband providers could block specific

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marketplace would be left unaddressed by patchwork ISP conduct rules. Thus, patchwork conduct rules that conceivably might be supported by authority identified here would not meaningfully address such concerns, even assuming *arguendo* that the record here supported such theories of harm.

C. Enforcement

293. In light of the modifications to our regulations, we also revise our enforcement practices under them. The *Internet Freedom NPRM* sought comment on the Commission's Ombudsperson, formal complaint rules, and advisory opinions established in the *Title II Order*.¹⁰⁵⁸ For the reasons discussed below, we remove these enforcement mechanisms. Our existing informal complaint procedures combined with transparency and competition, as well as antitrust and consumer protection laws, will ensure that ISPs continue to be held accountable for their actions, while removing unnecessary and ineffective regulatory processes and unused mechanisms.

294. *Open Internet Ombudsperson.* We find that there is no need for a separate Ombudsperson and thereby eliminate the Ombudsperson position. The *Title II Order* created the role of an Ombudsperson "to provide assistance to individuals and organizations with questions or complaints regarding the open Internet to ensure that small and often unrepresented groups reach the appropriate bureaus and offices to address specific issues."¹⁰⁵⁹ In particular, the *Title II Order* tasked the Ombudsperson with "conducting trend analysis of open Internet complaints and, more broadly, market conditions, that could be summarized in reports to the Commission regarding how the market is functioning for various stakeholders . . . [and] investigat[ing] and bring[ing] attention to open Internet concerns, and refer[ing] matters to the Enforcement Bureau for potential further investigation."¹⁰⁶⁰ We agree that it is important for the Commission to have staff who monitor consumer complaints and provide consumers with additional information; however, we disagree that a separate Ombudsperson role is necessary to perform this function specifically for transparency complaints.¹⁰⁶¹ Instead, as suggested in the record, we determine that the existing consumer complaint process administered by the Commission's Consumer and Governmental Affairs Bureau is best suited to and will process all informal transparency complaints.¹⁰⁶²

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content, applications, services, or devices, end users and edge providers would lose the control they currently have over whether other end users and edge providers can communicate with them through the Internet. Content, application, service and device providers (and their investors) could no longer assume that the market for their offerings included all U.S. end users."); *id.* at 17927-28, para. 38 ("Widespread interference with the Internet's openness would likely slow or even break the virtuous cycle of innovation that the Internet enables, and would likely cause harms that may be irreversible or very costly to undo."); *id.* at 17929-31, para. 42 ("For those who communicate and innovate on the Internet, and for investors in edge technologies, there is great value in having confidence that the Internet will remain open." (footnotes omitted)). Other theories identified harm to the marketplace as a whole that could be caused by one or a small number of ISPs. *See, e.g., Open Internet Order*, 25 FCC Rcd at 17920-21, para. 26 ("These emerging providers are particularly sensitive to barriers to innovation and entry, and may have difficulty obtaining financing if their offerings are subject to being blocked or disadvantaged by one or more of the major broadband providers." (footnote omitted)).

¹⁰⁵⁸ *Internet Freedom NPRM*, 32 FCC Rcd at 4465-66, paras. 96-99.

¹⁰⁵⁹ *Title II Order*, 30 FCC Rcd at 5715, para. 256.

¹⁰⁶⁰ *Id.*

¹⁰⁶¹ *See, e.g., NY City Council Progressive Caucus Comments* at 5 ("When a user seeks additional information, the Commission must provide rules and an ombudsman to facilitate and enforce those disclosures to that user and the world at large.").

¹⁰⁶² *See, e.g., ADTRAN Comments* at 31 ("[T]here is no need for a separate Ombudsperson, since that role can readily be fulfilled by the Commission's Consumer and Governmental Affairs Bureau."); *CenturyLink Comments* at 37 ("The Commission should eliminate the ombudsman, advisory opinions and the broad delegated authority grant created by the Title II Order- as well as the Open Internet complaint procedures. These procedures have not been

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295. We find that staff from the Consumer and Governmental Affairs Bureau—other than the Ombudsperson—have been performing the Ombudsperson functions envisioned by the *Title II Order*. Since the existing rules became effective in June 2015, the Consumer and Governmental Affairs Bureau has engaged in an ongoing review of informal consumer complaints submitted to the Ombudsperson and to the Commission’s Consumer Complaint Center.¹⁰⁶³ Many complaints convey frustration or dissatisfaction with a person or entity or discuss a subject without actually alleging wrongdoing on which the Commission may act; others represent isolated incidents that do not form a trend that allow judicious use of our limited resources. Staff from the Consumer and Governmental Affairs Bureau review all informal open Internet complaints received by the Commission, and work with staff in the Enforcement Bureau who also monitor media reports and conduct additional research to identify complaint trends so the Commission can best target its enforcement capabilities toward entities that have a pattern of violating the Communications Act and the Commission’s rules, regulations, and orders. The Commission’s decision not to expend its limited resources investigating each complaint that consumers believe may be related to the open Internet rules does not mean that the Commission “has not taken the time to analyze these materials” as alleged by some parties in the record.¹⁰⁶⁴ Rather, this ongoing review has helped identify trends in this subject matter as well as the many others over which we have jurisdiction and which generate far more consumer complaints.¹⁰⁶⁵

296. We emphasize that we are not making any changes to our informal complaint processes. Our decision to eliminate the Open Internet Ombudsperson does not impact the existing review of trends or existing responses to consumer complaints by the Consumer and Governmental Affairs Bureau and the Enforcement Bureau. Instead, it reduces confusion by making clear that staff specifically trained to work with consumers, known as Consumer Advocacy and Mediation Specialists (CAMS), are best suited to help consumers by providing them with understandable information about the issue they might be experiencing and to help file a complaint against a service provider if the consumer believes the service provider is violating our rules. When a consumer needs additional information that the CAMS cannot provide, that complaint is often shared with the expert Bureau or Office to provide additional information to the consumer.

297. Our experience also persuades us that the demand for a distinct Ombudsperson is not sufficient to retain the position. For the 10 month period from December 16, 2016 through November 16,

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utilized and only create another layer of unnecessary regulatory overhang.”). *But see* National Multicultural Organizations Comments at 28-29 (“[T]he Ombudsperson serves the important role of protecting and promoting the interest of consumers, particularly individuals from more vulnerable populations, who may be new to using broadband and have less confidence in their digital literacy.”).

¹⁰⁶³ Quantitative data about these complaints as well as their general subject matter are publicly available, but due to the personally identifiable information often included in these complaints, the actual complaints are not typically released. *See* Consumer Complaint Data Center, <https://www.fcc.gov/consumer-help-center-data> (last visited Nov. 20, 2017).

¹⁰⁶⁴ *See* NHMC Response at 3; *see also* Internet Freedom Coalition Reply at 7 (“[The Commission] proposes to eliminate the ombudsperson role established to assist consumers without any analysis of the two years of communications, approximately 1,500 emails between the ombudsperson and consumers.”).

¹⁰⁶⁵ *See, e.g.,* *Adrian Abramovich, Marketing Strategy Leaders, Inc., and Marketing Leaders, Inc.*, EB-TCD-15-00020488, Notice of Apparent Liability, 32 FCC Rcd. 5418, para. 1 (“The Enforcement Bureau [] has investigated complaints regarding Abramovich’s alleged scheme involving spoofed robocalls. . .”) (*Abramovich NAL*). The *Abramovich NAL* also notes that complaints about illegal robocalls are “the number one consumer complaint received by the Federal Communications Commission.” *Abramovich NAL* at 5418, para. 1. *See also* *AT&T Mobility, LLC, Notice of Apparent Liability*, 30 FCC Rcd 6613, 6618 para. 15 (2015) (“[T]he Commission has received thousands of complaints from AT&T’s unlimited data plan customers alleging that they have had their speeds intentionally reduced, and who claim that they purchased an unlimited data plan and are not getting the services that they paid for.”).

2017, the email address and phone number associated with the Ombudsperson received only 38 emails and 10 calls related to the open Internet— with only 7 emails and 2 calls coming in during the 5 month period between mid-July and mid November 2017.¹⁰⁶⁶ By comparison, during that same time period, the Consumer and Governmental Affairs Bureau’s Consumer Complaint Center received roughly 7,700 complaints that consumers identified as relating to open Internet.¹⁰⁶⁷ These statistics make clear that consumers have generally not been seeking out the Ombudsperson position for assistance with concerns about Internet openness and that consumers are comfortable working with the Consumer and Governmental Affairs Bureau to protect their interests.

298. *Formal Complaint Rules.* We similarly find that it is no longer necessary to allow for formal complaints under Part 8 of the Act as we believe that the informal complaint process is sufficient in this area.¹⁰⁶⁸ We encourage consumers to file informal complaints for apparent violations of the transparency rule in order to assist the Commission in monitoring the broadband market and furthering our goals under section 257 to identify market entry barriers.¹⁰⁶⁹ We also note that under the revised regulatory approach adopted today, consumers and other entities potentially impacted by ISPs’ conduct will have other remedies available to them outside of the Commission under other consumer protection laws to enforce the promises made under the transparency rule.

299. *Advisory Opinions.* Because we are eliminating the conduct rules, we find that the justification for enforcement advisory opinions no longer exists. Moreover, our experience with enforcement advisory opinions and the evidence in the record would lead us to eliminate the use of advisory opinions in the context of open Internet conduct in any event. The record indicates that enforcement advisory opinions do not diminish regulatory uncertainty, particularly for small providers.¹⁰⁷⁰ Rather they add costs and uncertain timelines since there is no specific timeframe within which to act, which can also inhibit innovation.¹⁰⁷¹ Further, the fact that no ISP has requested an advisory opinion since they first became available further demonstrates that they are not needed.

V. COST-BENEFIT ANALYSIS

300. The *Internet Freedom NPRM* solicited input for a cost-benefit analysis in this proceeding, with special emphasis on identifying “whether the decision will have positive net benefits.”¹⁰⁷² There was

¹⁰⁶⁶ While there has not been a named Open Internet Ombudsperson since the last person to serve as the Ombudsperson resigned from the role on January 6, 2017, CGB staff has continuously monitored the email and phone account associated with the Ombudsperson account. See Margaret Harding McGill, *FCC Leaves Vacant Net Neutrality Consumer Complaint Contact*, Politico (Oct. 13, 2017).

¹⁰⁶⁷ This figure includes complaints filed through the Consumer Complaint Center and the FCC Call Center for which the consumer self-selected the issue “Open Internet/Net Neutrality” or the call center agent selected “Open Internet” based on the consumer’s description of the issue, and does not exclude open Internet campaigns.

¹⁰⁶⁸ See, e.g., CenturyLink Comments at 37 (“[E]liminate the Open Internet complaint procedures, which have virtually never been used. Instead, [] rely on standard Commission practices to addresses any concerns that may be raised in this area going forward.”); ADTRAN Comments at 31 (“[T]here is no need for any special formal complaint procedures applicable just to Open Internet issues.”).

¹⁰⁶⁹ See *supra* Part IV.B.1.

¹⁰⁷⁰ See, e.g., ACA Reply at 17 (“For a smaller ISP, seeking a non-binding advisory opinion from the Commission offers cold comfort. Even receiving a favorable advisory opinion does not meaningfully decrease the level of regulatory risk smaller ISPs are comfortable taking on. Pursuing an advisory opinion is also costly. There are direct costs associated with preparing and submitting a formal request and opportunity costs associated with waiting for a decision to be issued.”); Comcast Comments at 72-73 (“The ‘advisory opinion’ process established in the Title II Order offers no real relief from these harmful, unintended consequences of the general conduct standard.”).

¹⁰⁷¹ WISPA Comments at 68-69 (“The absence of specific timeframes for the Bureau to act makes the value of Advisory Opinions illusory and essentially unavailable to small providers.”); see also *supra* para. 250.

¹⁰⁷² *Internet Freedom NPRM*, 32 FCC Rcd at 4468, para. 106.

generally favorable record support for conducting this analysis.¹⁰⁷³ Relying on the findings discussed above in light of the record before us and as a result of our economic analysis, we use a benefit-cost analysis framework to evaluate key decisions. While the record provides little data that would allow us to quantify the magnitudes of many of the effects, our findings with respect to the key decisions we make in this Order allow for a reasonable assessment of the direction of the effect on economic efficiency (i.e. net positive or net negative benefits¹⁰⁷⁴). This assessment is equivalent to conducting a qualitative benefit-cost analysis, because the purpose of comparing benefits and costs is to identify whether a policy change improves economic efficiency.¹⁰⁷⁵

301. As proposed in the *Internet Freedom NPRM*, we evaluate maintaining the classification of broadband Internet access service as a telecommunications service (i.e., Title II regulation);¹⁰⁷⁶ maintaining the Internet conduct rule; maintaining the no-blocking rule; maintaining the no-throttling rule; and maintaining the ban on paid prioritization.¹⁰⁷⁷ We also evaluate the benefits and costs associated with transparency regulations. We make each of these evaluations by organizing the relevant economic findings made throughout the Order into a benefit-cost framework.¹⁰⁷⁸

302. The primary benefits, costs, and transfers attributable to this Order are the changes in the economic welfare of consumers, ISPs, and edge providers that would occur based on our actions. In our analysis of the net benefits of maintaining the Title II classification, the Internet conduct rule, and the bright-line rules, we compare against a state we would expect to exist if we did *not* maintain the classification or a particular rule. As explained in the *Internet Freedom NPRM*, we “recognize that in certain cases repealing or eliminating a rule does not result in a total lack of regulation but instead means that other regulations continue to operate or other regulatory bodies will have authority.”¹⁰⁷⁹ As discussed elsewhere in this Order, when analyzing the net benefits of maintaining the Title II classification, our comparison is to a situation where a Title I regime for broadband Internet access service, and antitrust and consumer protection enforcement remain in place. Further, given this Order’s adoption of a transparency rule, when considering net benefits of the current rules we compare against a state where the transparency rule we adopt is in effect (as well as the antitrust and consumer protection enforcement that exists under a Title I classification). We also recognize that the actions we analyze separately could potentially be interdependent, but we believe a separate consideration of each is a reasonable way to approximate the net benefits.¹⁰⁸⁰

¹⁰⁷³ See, e.g., Free State Foundation Comments at 61; CAGW Comments at 4; ADTRAN Comments at 24; CALinnovates Comments at 2-3; AT&T Comments at 10; TechFreedom Reply at 101.

¹⁰⁷⁴ “Net benefits” are the net present value of benefits minus the net present value of costs. When benefits exceed the costs, the result is net positive benefits, and when costs exceed benefits the result is net negative benefits.

¹⁰⁷⁵ For an explanation of the relationship between cost-benefit analysis and economic efficiency, see Richard O. Zerbe, Jr., and Dwight D. Dively, *Benefit-Cost Analysis in Theory and Practice* at 12-13 (1994).

¹⁰⁷⁶ Throughout this section, when discussing maintaining broadband Internet access service as a telecommunications service, we mean as implemented by the *Title II Order*, where the Commission forbore from applying some sections of the Act and some Commission rules.

¹⁰⁷⁷ *Internet Freedom NPRM*, 32 FCC Rcd at 4468, para. 105.

¹⁰⁷⁸ We do not recount the analysis underlying each conclusion since that has been presented in the relevant places throughout the Order.

¹⁰⁷⁹ *Internet Freedom NPRM*, 32 FCC Rcd at 4469, para. 107.

¹⁰⁸⁰ Attempting to assert the nature of these interdependencies, particularly given the limited record on such matters, we believe would introduce considerable subjectivity while not likely improving the ability of the analysis to guide our decisions. Moreover, we consider additional regulation, for example, adding an additional rule to a baseline package of Title II regulation and another rule (or none) is likely to have greater negative impacts in terms of regulatory uncertainty, and distortion of efficient choices, than the baseline package, while at best having little or no additional impact on the positive impacts (if any) of each element of the baseline package. That is, the interactions

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303. To conduct the cost-benefit analysis, we first consider the question of maintaining the Title II classification of broadband Internet access service. We next consider approaches to transparency. Then to evaluate the Internet conduct rule and the bright-line rules, we assume that we will not maintain the Title II classification and we will adopt our transparency rule. This approach allows us practically to evaluate the rules in a way that incorporates the decisions on classification and transparency that we have come to in this Order.

304. *Maintaining Title II Classification of Broadband Internet Access Service.* We have found that the *Title II Order* decreased investment and is likely to continue to decrease investment by ISPs.¹⁰⁸¹ These decreases in investments are likely to result in less deployment of service to unserved areas and less upgrading of facilities in already served areas. For consumers, this means some will likely not have access to high-speed services over fixed or mobile networks and some will not experience better service as quickly as they otherwise would under a Title I classification. While the evidence in the record on the effect of Title II is varied in terms of details due to different methodologies, data, etc., we found that the Title II classification did directionally decrease investment by ISPs.¹⁰⁸²

305. As the *Internet Freedom NPRM* noted, “the networks built with capital investments are only a means to an end . . . the private costs borne by consumers and businesses of maintaining the *status quo* [i.e., Title II classification] result from decreased value derived from using the networks.”¹⁰⁸³ Ideally, we would estimate consumers’ and businesses’ valuations of the service or service improvements foregone caused by Title II classification. Unfortunately, the record before us does not allow for such estimation. We can reasonably conclude, however, that providers expect to recoup their investments over time through revenues generated by employing the networks resulting from the investment. Since these revenues come from consumers and businesses who are willing to pay *at least* their value of the service, the investment foregone due to Title II is a lower bound on the costs of maintaining the classification. This is a conservative estimate of the social welfare impact because frequently (1) a customer’s willingness to pay exceeds what the customer actually pays, and (2) the provider may make an economic profit. These likelihoods both would increase the private costs associated with foregone investment due to maintaining Title II classification. We therefore conclude that the private costs of maintaining a Title II classification due to foregone networks are directionally negative and likely constitute at least several billion dollars annually based on the record.

306. The Commission also asked in the *Internet Freedom NPRM* about additional costs that could result from foregone network investments.¹⁰⁸⁴ When regulation discourages investment in the network, society is likely to lose some spillover benefits that the purchasers of broadband access do not themselves capture. Such foregone benefits can include network externalities (the network becomes more valuable the more users are on the network, but individual ISPs do not capture all of these, as they are obtained by end users on other ISPs’ networks),¹⁰⁸⁵ and improvements in productivity and innovation that occur because broadband is a general-purpose technology. The record provides little information that

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increase uncertainty and the unintended side effects of each element, without making each element materially more effective.

¹⁰⁸¹ See *supra* Part III.C.1.

¹⁰⁸² Since the *Title II Order* classified broadband Internet access service under Title II and adopted rules simultaneously, it is difficult methodologically to make a clear delineation between the effect of the classification and the rules. However, the theoretical underpinnings of our finding about the effect of Title II specifically also support the finding of a negative impact on investment as a result of Title II *per se*. See *supra* paras. 83, 93.

¹⁰⁸³ *Internet Freedom NPRM*, 32 FCC Rcd at 4469, para. 110.

¹⁰⁸⁴ *Id.* at 4470, para. 111-13.

¹⁰⁸⁵ See *supra* para. 119.

could be used to quantify such costs, but it is reasonable to conclude that there are social costs beyond the private costs associated with the foregone investment.¹⁰⁸⁶

307. Next, we consider the benefits associated with maintaining the Title II classification. The relevant comparison is what incremental benefit the Title II classification provides over and above the Title I scenario. In the Title I scenario, the FTC has jurisdiction over broadband Internet access service providers. The record does not convince us that Title II classification *per se* provides any benefit over and above Title I classification. We also find above that the record does not provide evidence supporting the conclusion that the Title II classification affects edge investment. To the extent Title II provides a benefit, it appears to do so by serving as a legal basis relied upon to adopt rules. Therefore, in this benefit-cost analysis we conclude the incremental benefits of maintaining the Title II classification are approximately zero.¹⁰⁸⁷

308. Finding that the benefits of maintaining the Title II classification are approximately zero, coupled with our finding that the private and social costs are positive, we conclude that maintaining the Title II classification would have net negative benefits. Thus, maintaining the Title II classification would decrease overall economic welfare, and our benefit-cost analysis supports the decision to reclassify broadband Internet access service as a Title I service.

309. *Evaluating Transparency Rules.* As discussed already, we find that the benefits of a transparency rule are positive based on the record.¹⁰⁸⁸ Given our decision to classify under Title I, the benefits of a transparency rule are expected to be of considerable magnitude since it is a key element of our approach of relying on enforcement under antitrust and consumer protection law to prevent and remedy harmful behaviors by ISPs. Numerous commenters indicate the benefits of a free and open Internet are large, so to the extent a transparency rule under our Title I approach is important for maintaining a free and open Internet, we can conclude the benefits are positive and considerable. Furthermore, transparency can provide other benefits in terms of consumer welfare. Namely, if transparency helps mitigate economic deadweight loss due to information asymmetry or if it helps consumers better satisfy their preferences in their purchasing decisions, then additional benefits will accrue. We therefore conclude that our transparency approach, as well as the transparency approaches in the 2010 *Open Internet Order* and the 2015 *Title II Order*, all have positive benefits.

310. The costs of the transparency rules may vary given differences in their implementation. Comparing the transparency approach in the *Open Internet Order* and the *Title II Order*, we conclude the costs were greater for the latter. Based on the record, we determined above that the additional transparency requirements in the *Title II Order* were particularly burdensome.¹⁰⁸⁹ Although the record is limited on the costs of these transparency rules, the Commission's Paperwork Reduction Act (PRA) filings indicate the *Title II Order* transparency rule increased the burden on the public by thousands of hours per year, costing hundreds of thousands of dollars.¹⁰⁹⁰ While we do not have specific information

¹⁰⁸⁶ See, e.g., Letter from Thomas J. Navin, Counsel to Corning Inc., to Marlene Dortch, Secretary FCC, WC Docket No. 17-84, Attach. A (Oct. 20, 2017), <https://ecfsapi.fcc.gov/file/1020823627435/Corning%20Ex%20Parte.pdf> (Hal Singer, Ed Naef, Alex King, Economists Incorporated and CMA Strategy Consulting, *Assessing the Impact of Removing Regulatory Barriers on Next Generation Wireless and Wireline Broadband Infrastructure Investment* at 35-45 (June 2017) (discussing the impact of additional investments on spillover effects and economic output).

¹⁰⁸⁷ To the extent the benefits of maintaining the Title II classification rest in Title II supporting the rules, those benefits are accounted for in our analysis of the rules themselves, below.

¹⁰⁸⁸ *Supra* Parts IV.A.2, IV.B.1.

¹⁰⁸⁹ See *supra* Parts IV.A.2, IV.B.1.

¹⁰⁹⁰ CenturyLink estimated, between February 2015 and February 2017, 825 employee hours were required annually to meet the enhanced transparency requirements of the *Title II Order*. CenturyLink Comments, Appx. 3, Decl. of Jeff Glover at 2. AT&T, Verizon, Comcast, Charter, all being considerably larger than CenturyLink, likely each incurred at least another 825 hours, while other large ISPs like Cox, Altice, Frontier conservatively would have also

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on our transparency rule's costs, it is fairly similar to that in the *Open Internet Order*. Therefore, we conclude that a reasonable approximation for the PRA burden associated with our rule is approximately half the preceding burden estimate.¹⁰⁹¹ We recognize there are other costs to this requirement not accounted for in the PRA estimate, though the PRA estimate provides a starting point for sizing the costs, particularly as we compare several alternative transparency approaches.

311. Combining our conclusion about the benefits of a transparency rule with our assessments of the costs of the several transparency rules, we conclude that the transparency rule in the *Title II Order* would have the smallest net positive benefit of the three. That is because we do not believe the additional elements of the *Title II Order* transparency regime have significant additional benefits but they do impose significant additional costs.¹⁰⁹² However, our transparency rule would have a larger net positive benefit than the transparency rule in the *Title II Order*. Therefore, our benefit-cost analysis of the transparency alternatives supports our decision to adopt a transparency rule more limited than the one in the *Title II Order*.

312. *Maintaining the Internet Conduct Rule.* We have determined elsewhere that the Internet conduct rule has created uncertainty and ultimately deterred innovation and investment. The record does not provide sufficient information for us to estimate the magnitude of this effect. However, we do find that maintaining the Internet conduct rule imposes social costs in terms of increased uncertainty, reduced investment, and reduced innovation.¹⁰⁹³

313. We also find above that the benefits of the Internet conduct standard are limited if not approximately zero. In this benefit-cost analysis, we consider the incremental benefit of the Internet conduct standard relative to the regulatory environment created by this Order. The regulatory environment created by this Order will have antitrust and consumer protection enforcement in place through the FTC. We find that the Internet conduct standard provides approximately zero additional benefits compared to that baseline.

314. Based on the record available, we conclude that maintaining the Internet conduct standard would impose net negative benefits. The costs of the rule are considerable as the evidence shows that it had large effects on consumers obtaining innovative services (as demonstrated by the zero-rating experiences). The innovations that were delayed or never brought to market would likely have cost many millions or even billions of dollars in lost consumer welfare. At the same time, for the reasons explained already, the benefits of the conduct rule are approximately zero. This leads us to conclude that the Internet conduct standard has a net negative effect on economic welfare, and supports our decision not to maintain the Internet conduct rule.

315. *Maintaining the Ban on Paid Prioritization.* We have determined elsewhere in this Order that the ban on paid prioritization has created uncertainty and reduced ISP investment.¹⁰⁹⁴ We also find that the ban is likely to prevent certain types of innovative applications from being developed or adopted. The record does not provide sufficient information for us to estimate the magnitude of these effects. However, we do find that maintaining the ban on paid prioritization imposes substantial social costs.

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each incurred half as many hours as CenturyLink, for a total of 5,362.5 (= 5*825 + 3*412.5) hours, or, at a low \$25/hour, over \$134,000 per year. Because compliance costs do not scale with size, adding in the hours spent by smaller ISPs not exempted from this provision would substantially increase these numbers.

¹⁰⁹¹ In the same period, CenturyLink estimated its costs of meeting the Open Internet transparency requirement to be 52.1% of its costs of meeting the Title II enhanced requirements (CenturyLink, Declaration of Jeff Glover at 2).

¹⁰⁹² See *supra* Part IV.A.2.

¹⁰⁹³ See *supra* Part IV.B.2.a.

¹⁰⁹⁴ See *supra* Part IV.B.2.b.

316. We also find above that the benefits of the ban on paid prioritization are limited. In this benefit-cost analysis, we consider the incremental benefit of the ban on paid prioritization relative to the regulatory environment created by this Order. The regulatory environment created by this Order will have antitrust and consumer protection enforcement in place. So we must ask what the ban on paid prioritization provides in additional benefits when compared to that baseline. We concluded that transparency combined with antitrust and consumer enforcement at the FTC will be able to address the vast majority of harms the ban on paid prioritization is intended to prevent. To the extent there are harms not well addressed by this enforcement, we would expect those cases to be infrequent and involve relatively small amounts of harm, though the record does not allow us to estimate this magnitude.¹⁰⁹⁵ The record therefore supports a finding of small to zero benefits.

317. Based on the record available, we conclude that maintaining the ban on paid prioritization would impose net negative benefits. The record shows that in some cases innovative services and business models would benefit from paid prioritization.¹⁰⁹⁶ At the same time, for the reasons explained already, the benefits of maintaining the ban are small or zero. We therefore conclude that the ban on paid prioritization has a net negative effect on economic welfare. This conclusion supports our decision to not maintain the ban on paid prioritization.

318. *Maintaining the Bans on Blocking and Throttling.* We find that the costs of these bans are likely small. This is supported by the fact that ISPs voluntarily have chosen in some cases to commit to not blocking or throttling.¹⁰⁹⁷ However, we also recognize that these rules may create some compliance costs nonetheless. For example, when considering new approaches to managing network traffic, an ISP must apply due diligence in evaluating whether the practice might be perceived as running afoul of the rules. As network management becomes increasingly complex,¹⁰⁹⁸ the compliance costs of these rules could increase.

319. Having adopted a transparency rule, we find the benefits of bans on blocking and throttling are approximately zero since the transparency rule will allow antitrust and consumer protection law, coupled with consumer expectations and ISP incentives, to mitigate potential harms. That is, we have determined that replacing the prohibitions on blocking and throttling with transparency rules implements a lower-cost method of ensuring that threats to Internet openness are exposed and deterred by market forces, public opprobrium, and enforcement of the consumer protection laws.¹⁰⁹⁹ We conclude therefore that maintaining the bans on blocking and throttling has a small net negative benefit, compared to the new regulatory environment we create (i.e. Title I classification and our transparency rule).

VI. ORDER

A. Denial of INCOMPAS Petition to Modify Protective Orders

320. INCOMPAS requests that we modify the protective orders in four recent major transaction proceedings involving Internet service providers to allow confidential materials submitted in

¹⁰⁹⁵ Antitrust law, in combination with the transparency rule we adopt, is particularly well-suited to addressing any potential or actual anticompetitive harms that may arise from paid prioritization arrangements. While antitrust law does not address harms that may arise from the legal use of market power, we have found that such market power is limited, and ISPs also have countervailing incentives to keep edge provider output high and keep subscribers on the network. See *supra* Part IV.B.2.b.

¹⁰⁹⁶ See *supra* Part IV.B.2.b.

¹⁰⁹⁷ See *supra* Part IV.B.2.c.

¹⁰⁹⁸ See *supra* para. 250. See also Nokia Comments at 17-18 (asserting bright line no-throttling rule harmed development of innovative network management programs).

¹⁰⁹⁹ See *supra* paras. 259-260.

those dockets to be used in this proceeding.¹¹⁰⁰ INCOMPAS argues that the materials “are necessary to understanding and fully analyzing incumbent broadband providers’ ability and incentives to harm edge providers.”¹¹⁰¹ The motion is opposed by the three companies whose materials would be most affected—Comcast, Charter and AT&T—as well as by Verizon.¹¹⁰² For the reasons set forth below, after carefully “balancing . . . the public and private interests involved,”¹¹⁰³ we deny INCOMPAS’s request.

321. The Commission’s protective orders limit parties’ use of the materials obtained under the protective order solely to “the preparation and conduct” of that particular proceeding, and expressly prohibit the materials being used “for any other purpose, including . . . in any other administrative, regulatory or judicial proceedings.”¹¹⁰⁴ The terms of the relevant protective orders therefore prohibit INCOMPAS from using the confidential materials it obtained in those prior dockets in the current proceeding. Further, parties reasonably expect that the information they submit pursuant to the strictures of a protective order will be used in accordance with the terms of that order and that the order’s explicit prohibitions will not be changed years later.¹¹⁰⁵

322. Before discussing the substance of INCOMPAS’s request, we note that, as a formal matter, the Commission does not modify protective orders to allow materials to be used in a different proceeding. Rather, where we find that the public interest is served by submitting certain materials into a docket, we do so, subject to a protective order specific to that proceeding if the material is confidential.¹¹⁰⁶ That is true whether the materials have been submitted in prior proceedings or not. The question before us, then, is whether we will require the relevant parties to submit into this docket the presumptively confidential information INCOMPAS has identified.

323. The Commission is not required to enter into the record and review every document that a party to a proceeding deems relevant, especially where, as here, those documents may number in the

¹¹⁰⁰ Motion of INCOMPAS to Modify Protective Orders, WC Docket No. 17-108 (filed July 17, 2017) (INCOMPAS Motion). *See also* Support of Motion of INCOMPAS to Modify Protective Orders, filed by Public Knowledge, WC Docket No. 17-108 (filed July 31, 2017). The four proceedings involve Charter Communications’ acquisition of Time Warner Cable, Inc. and Bright House Networks, MB Docket No. 15-149; Comcast Corp.’s proposed acquisition of Time Warner Cable, Inc., MB Docket No. 14-57; AT&T Inc.’s acquisition of DirecTV, MB Docket No. 14-90; and Comcast Corp.’s acquisition of NBC Universal, Inc., MB Docket No. 10-56.

¹¹⁰¹ INCOMPAS Motion at 11.

¹¹⁰² Comcast Corp.’s Opposition to Motion of INCOMPAS to Modify Protective Orders, WC Docket No. 17-108 (filed July 27, 2017); Opposition to Motion of INCOMPAS to Modify Protective Orders, filed by Charter Communications, Inc., WC Docket No. 17-108 (filed July 27, 2017) (Comcast Opposition); Opposition of AT&T Services Inc. to Motion of INCOMPAS to Modify Protective Orders, WC Docket No. 17-108 (filed July 27, 2017) (AT&T Opposition); Verizon’s Opposition to INCOMPAS’s Motion to Modify Protective Orders, WC Docket No. 17-108 (filed Aug. 8, 2017) (Verizon Opposition).

¹¹⁰³ *See FCC v. Schreiber*, 381 U.S. 279, 289-90 (1965).

¹¹⁰⁴ *See, e.g., Applications of Charter Communications, Inc. at al. for Consent to Assign or Transfer Control of Licenses and Authorizations*, Order, 30 FCC Rcd 10360, 10392, para. 11 (2015).

¹¹⁰⁵ That is not to imply, however, that the Commission cannot request the submission of information in a proceeding simply because it has been provided pursuant to a protective order in another proceeding.

¹¹⁰⁶ *See Applications of Charter Communications, Inc. at al. for Consent to Assign or Transfer Control of Licenses and Authorizations*, Order, 30 FCC Rcd at 10368 n.56; *Investigation of Certain Price Cap Local Exchange Carrier Business Data Services Tariff Pricing Plans; Special Access for Price Cap Local Exchange Carriers*, Order and Protective Order, 30 FCC Rcd 13680, 13683-85 paras. 10, 13 & n.29 (WCB 2015). Depending on the material, the Commission either makes new requests of the owners of the materials or, where there are too many owners to make that course practical, issues a public notice stating that the material will be placed in the record of the new proceeding and providing the owners an opportunity to object.

tens of thousands.¹¹⁰⁷ Nor, as a general matter, does the Commission allow for discovery by parties—which is essentially what INCOMPAS seeks here—except in adjudications that have been set for hearing.¹¹⁰⁸ The Commission has broad discretion in how to manage its own proceedings,¹¹⁰⁹ and we find several problems with requiring the materials INCOMPAS seeks to be submitted into this rulemaking docket.

324. First, much of the material INCOMPAS seeks is now several years old and INCOMPAS has offered little demonstration of its relevance to this proceeding. For example, Comcast's ability to discriminate against online video providers in 2009 and 2010 shines little light on its ability to do so now.¹¹¹⁰ Also, as the opponents argue, many of the confidential materials cited by the Commission in its prior transaction decisions were cited as part of a larger group of mostly publicly available information.¹¹¹¹ Having the competitively sensitive information from those transactions in this record would therefore not significantly add to the Commission's understanding of the issues, especially since the participants in the current proceeding and the Commission already have available the Commission's prior conclusions and reasoning, as well as the underlying public information.

325. Second, INCOMPAS asks for information only from the few industry participants who happen to have had large transactions before the Commission. But where the Commission has sought information in large rulemaking proceedings, it sought information from the entire industry, not just from a select few participants.¹¹¹² Particularly given that there are thousands of ISPs doing business in the United States,¹¹¹³ INCOMPAS does not address how a quite incomplete picture of industry practices could meaningfully improve the Commission's analysis.¹¹¹⁴

326. Third, granting the request would pose several administrative difficulties. It is unclear how much of the material INCOMPAS seeks is still in the possession of the parties: the relevant portions of the proceedings are finished, and many of the materials may have been destroyed. And what is still available at the Commission would be difficult and costly to produce.¹¹¹⁵ Making the information

¹¹⁰⁷ *SBC Communications, Inc. v. FCC*, 56 F.3d 1484, 1496 (D.C. Cir. 1995) (citing *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519, 549 (1978)) (upholding Commission determination not to include in the record additional HSR documents submitted to DOJ in connection with same transaction).

¹¹⁰⁸ See 47 CFR § 1.311; *WETM-TV, Inc.*, Memorandum Opinion and Order, 88 FCC 2d 1399, 1404, para. 13 (1982). Indeed, even in formal complaint proceedings, discovery is at the discretion of the Commission. See *Marpin Telecoms and Broadcasting Company Limited v. Cable & Wireless, Inc.*, Order, 18 FCC Rcd 508, 510-12, paras. 8-9 (2003).

¹¹⁰⁹ 47 U.S.C. § 154(j); *Marpin Telecoms and Broadcasting Company Limited v. Cable & Wireless, Inc.*, 18 FCC Rcd at 511, para. 9. See *Hi-Tech Furnace Sys. Inc. v. FCC*, 224 F.3d 781, 789 (D.C. Cir. 2000). See generally *FCC v. Schreiber*, 381 U.S. 279, 289-90 (1965).

¹¹¹⁰ Moreover, the conditions that the Commission attached to the Comcast/NBCU transaction are set to expire on their own terms in January 2018. See *Comcast-NBCU Order*, 26 FCC Rcd at 4381, Appx. A.

¹¹¹¹ See, e.g., AT&T Opposition at 13; Comcast Opposition at 6, n.17.

¹¹¹² See *supra* para. 330 (noting that the transaction proceedings INCOMPAS focuses on involved some of the nation's largest broadband providers). Transaction review is an adjudicatory matter, involving the entities engaging in the transaction—not the entire industry or marketplace.

¹¹¹³ Industry Analysis and Technology Division, Wireline Competition Bureau, FCC, Internet Access Service Report at 27, Fig. 30 (Apr. 2017), https://apps.fcc.gov/edocs_public/attachmatch/DOC-344499A1.pdf.

¹¹¹⁴ While the applicants in these transactions have a large percentage of the nation's Internet access subscribers, they are nonetheless a small percentage of the number of providers.

¹¹¹⁵ Most of the materials INCOMPAS seeks were provided to the FCC as part of a large electronic document production, delivered on computer hard drives. The FCC would need to obtain proper software to view the materials, re-load the production, and then review the tens of thousands of documents to select the relevant ones.

(continued....)

available to others also would be administratively difficult. For example, in the recent Business Data Services proceeding, the Commission made the competitively sensitive data available for review only through a secure data enclave, a process which took significant time and resources to establish.¹¹¹⁶ And in most Commission proceedings, the parties who own the confidential information are required to provide that material directly to persons who seek to review it pursuant to terms outlined in the applicable protective order. Here, in contrast, it is likely that the Commission itself would have to make the confidential information available, further depleting scarce Commission resources.

327. Finally, as noted above, the materials INCOMPAS seeks were provided pursuant to express assurances against their use in future proceedings.

328. INCOMPAS cites two examples in which the Commission staff placed into the record competitively sensitive materials originally submitted in another docket.¹¹¹⁷ We find both inapposite. As an initial matter, we note that the Commission is not bound by its staff's prior decisions.¹¹¹⁸ Additionally, in evaluating transactions between wireless telecommunications companies, the Commission regularly uses subscriber data derived from regular periodic confidential filings made by all telecommunications companies to determine market shares. In such transactions, this use of subscriber data is often the only way to calculate market share, which is a critical element to analyzing the potential competitive harms of the proposed transaction. Balancing that need against the potential competitive harm to providers, we have determined that allowing that material to be reviewed pursuant to a protective order best serves the public interest. For the reasons expressed above, we do not reach the same conclusions with respect to the materials here.

329. INCOMPAS also cites the recent investigation of certain business data services tariffs, in which the Commission placed the record of the contemporaneous business data services rulemaking proceeding into the docket of the tariff investigations. As the opponents note, the tariff investigation was not only related to the rulemaking proceeding, it actually was determined by the staff to be "an outgrowth" of that proceeding.¹¹¹⁹ Further, there was no Commission decision in the rulemaking proceeding on which the participants in the tariff proceeding could rely; the proceeding was still ongoing. All of the participants in the tariff proceeding, moreover, were participating in the rulemaking proceeding. Here, by contrast, the current rulemaking is not related to the prior transactions; the parties may rely on prior written Commission decisions; and literally millions more comments have been submitted in this rulemaking than in the prior transaction proceedings. Finally, we note that none of the parties that owned the confidential information in the Business Data Services rulemaking proceeding raised confidentiality concerns with respect to that information being placed into the tariff investigation docket.¹¹²⁰ Here, they do.

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This would cost the agency significant time and funding. Further, not all documents are available in digital format, which would create additional administrative burdens to first organize and digitize the relevant materials.

¹¹¹⁶ *Special Access for Price Cap Local Exchange Carriers; AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, Order and Data Collection Protective Order, 29 FCC Rcd 11657 (Wireline Comp. Bur. 2014).

¹¹¹⁷ See INCOMPAS Motion at 12.

¹¹¹⁸ See, e.g., *SNR Wireless LicenseCo, LLC v. FCC*, 868 F.3d 1021, 1037 (D.C. Cir. 2017).

¹¹¹⁹ *Investigation of Certain Price Cap Local Exchange Carrier Business Data Service Tariff Pricing Plans; Special Access for Price Cap Local Exchange Carriers*, Order and Protective Orders, 30 FCC Rcd at 13683, para. 9.

¹¹²⁰ While Level 3 Communications objected to the information from the rulemaking proceeding being placed into the tariff investigation docket, it did not raise confidentiality concerns. Instead, Level 3 argued that the information was unnecessary to the resolution of the tariff investigation proceeding and that adding it to the record would increase the costs and burdens on the other parties and risk delaying the proceeding's resolution. *Investigation of Certain Price Cap Local Exchange Carrier Business Data Services Tariff Pricing Plans; Special Access for Price*

(continued....)

330. Even absent the legal and administrative barriers discussed above, the substance of the past transaction orders compels us to deny INCOMPAS' motion. When, as it has in the past, the Commission determines a specific transaction involving certain large broadband providers is likely to create competitive or other public interest harm, the conditions imposed are applicable *only* to those entities engaging in the transaction. Those proceedings involved some of the nation's largest broadband providers, and the Commission's conclusions were based on the specific circumstances involved. This is because transaction review is an adjudicatory matter, involving the motives, plans, and capabilities of the entities engaging in the transaction—not the entire industry or marketplace.¹¹²¹ The targeted and flexible approach the Commission used to ameliorate the potential harms it found in those transactions is not transferable to a permanent, one-size-fits-all approach in this rulemaking applicable to hundreds of ISPs.

331. Further, in those limited instances in which the Commission found conduct remedies necessary, it almost always applied them on a temporary basis, in recognition that markets change over time. That is true even more so in industries that are characterized by rapidly changing technologies.¹¹²² Similarly, the Commission often has provided that it will “consider a petition for modification of this condition if it can be demonstrated that there has been a material change in circumstance or the condition has proven unduly burdensome, rendering the condition no longer necessary in the public interest,”¹¹²³ and has acted accordingly.¹¹²⁴ None of this would be the case with respect to the regulations that some commenters urge us to adopt in this rulemaking.¹¹²⁵

332. INCOMPAS argues that “[l]ooking to the past is the standard way for administrative agencies to make predictive judgments.”¹¹²⁶ However, the analysis supporting our decision to re-classify

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Cap Local Exchange Carriers, WC Docket Nos. 15-247, 05-25, Opposition of Level 3 to Modify Protective Orders (Nov. 4, 2015).

¹¹²¹ Indeed, transaction reviews specifically do not address issues that are not transaction-specific but are industry-wide. See, e.g., *Applications of Cellco Partnership d/b/a Verizon Wireless and SpectrumCo LLC and Cox TMI, LLC for Consent to Assign AWS-1 Licenses*, WT Docket No. 12-4, Memorandum Opinion and Order and Declaratory Ruling, 27 FCC Rcd 10698, 10732-34, paras. 91-94 (2013); *Application of AT&T Inc. and Qualcomm Incorporated for Consent to Assign Licenses and Authorizations*, =Order, 26 FCC Rcd 17589, 17622, para. 79 (2011).

¹¹²² See, e.g., *AT&T/DIRECTV Order*, 30 FCC Rcd at 9301, Appx. B (only requiring conditions for four years following the close of the transaction); *Comcast-NBCU Order*, 26 FCC Rcd 4238, 4312, para. 178 (2011) (explaining that the Commission placed a seven-year time limit on the condition for affiliate programming agreements because “the video marketplace is changing, and in light of that evolution, [the Commission is] reluctant to impose indefinite terms for conditions based upon the contractual provisions with fixed terms negotiated by the parties”); *Charter/TWC Order*, 31 FCC Rcd at 6370, para. 86 (limiting condition on data caps to seven years because period of time would “allow the edge provider market room to become more mature and better positioned to withstand attempts by New Charter to impose data caps and UBP at levels indeed [sic.? Should be “intended”?] to blunt their competitiveness. Seven years may also provide the high-speed BIAS provider market sufficient time to develop further with additional investments in fiber from established wireline BIAS providers, Wireless 5G technology, use of smartgrid fiber for broadband, additional overbuilding, and other potential competitors to traditional wired BIAS providers.”).

¹¹²³ See *Comcast-NBCU Order*, 26 FCC Rcd 4238, 4381, Appendix A, n.11; *Adelphia Order*, 21 FCC Rcd 8203, 8277, para. 164 (2006) (citing *News Corp.-Hughes Order*, 19 FCC Rcd at 555, para. 179).

¹¹²⁴ See, e.g., *Application for Consent to the Transfer of Control of Licenses and Section 214 Authorization by Time Warner Inc. and America Online, Inc., Transferors, to AOL Time Warner Inc., Transferee*, Order, 27 FCC Rcd 638 (2012) (terminating several conditions as unnecessary after corporate sale); *General Motors Corporation, Hughes Electronics Corp., Transferors and The News Corporation Limited, Transferee*, Memorandum Opinion and Order, 24 FCC Rcd 8674 (2009) (terminating some conditions due to a material change in circumstances).

¹¹²⁵ See, e.g., INCOMPAS Comments at 69 (arguing for *ex ante* rules, including the general conduct rule).

¹¹²⁶ INCOMPAS Response at 5.

broadband Internet access service as an information service is quite different from the analysis the Commission employs when conducting a transaction review. In this rulemaking, we are not considering whether, as a result of a transfer of a Commission license, a licensee is likely to gain market power, allowing it to take anticompetitive actions that it otherwise could not. Instead, we are reasonably considering the long-term costs and benefits of Title II and other *ex ante* regulation in an increasingly dynamic market. As such, we choose a conservative and administrable approach to formulating a light-touch regulatory framework—which is appropriate in a rulemaking.

333. In addition to rejecting the INCOMPAS petition on the merits, we find that the petition is procedurally flawed. Although some of the companies that objected to INCOMPAS's request were the applicants in the proceedings from which INCOMPAS seeks confidential information, they are not the only owners of confidential information submitted in those dockets.¹¹²⁷ INCOMPAS did not file its request in those dockets—which are long dormant—and others whose confidential information would be disclosed if we were to grant INCOMPAS's request have not been notified of the request to have the opportunity to object. That would need to occur before any of their information could be made available, even pursuant to a protective order.¹¹²⁸

334. Taking into account and sensibly balancing the factors discussed above, we find that the public interest would not be served by requiring the submission into the docket of the current proceeding the presumptively confidential information INCOMPAS seeks. We therefore deny INCOMPAS's request.

B. Denial of NHMC Motion Regarding Informal Consumer Complaints

335. The National Hispanic Media Coalition (NHMC) requests that we incorporate in the record of this proceeding the informal complaint materials released as part of NHMC's Freedom of Information Act (FOIA) request and establish a new pleading cycle for public comment on those materials.¹¹²⁹ NHMC argues that the materials "are directly relevant to the [NPRM's] questions regarding the effectiveness of the [*Title II Order*]" and that if we deny NHMC's request, "any decision in this proceeding would be based on an insufficient and fundamentally flawed record."¹¹³⁰ The motion is opposed by several parties who argue that the informal complaint materials are not relevant to this proceeding, and that the motion "appears to be . . . aimed [] at prolonging this proceeding unnecessarily."¹¹³¹ For the reasons set forth below, we deny NHMC's request.

¹¹²⁷ Some of the confidential information submitted in these dockets involved not just the applicants but also third-parties. Those third-parties have a right to object to the release of their confidential information. *See Applications of Charter Communications, Inc. at al. for Consent to Assign or Transfer Control of Licenses and Authorizations, Order*, 30 FCC Rcd at 10374, para. 26.

¹¹²⁸ *Cf. Applications of Cricket License Company, LLC, et al., Leap Wireless International, Inc., and AT&T Inc. for Consent To Transfer Control of Authorizations*, Public Notice, 28 FCC Rcd 12821 (Wireless Telecom. Bur. 2013) (providing notice of intent to place confidential information into the record of a separate proceeding and providing affected parties an opportunity to object). *Investigation of Certain Price Cap Local Exchange Carrier Business Data Services Tariff Pricing Plans; Special Access for Price Cap Local Exchange Carriers*, Motion of AT&T Inc., Verizon, CenturyLink, and Frontier to Modify Protective Orders, WC Docket Nos. 15-247, 05-25 (filed Oct. 23, 2015) (motion filed in docket in which confidential materials were originally submitted and in docket into which parties sought confidential materials to be submitted).

¹¹²⁹ Joint Motion To Make Informal Open Internet Complaint Documents Part of the Record and To Set a Pleading Cycle for Comment on Them, WC Docket No. 17-108 (filed Sept. 18, 2017) (NHMC Joint Motion).

¹¹³⁰ NHMC Joint Motion at 10.

¹¹³¹ NCTA and USTelecom, Opposition to Motion Regarding Informal Complaints, WC Docket No. 17-108, at 1-2 (filed Sept. 28, 2017) (NCTA and USTelecom Opposition); *see also* Letter from Henry Hultquist, Vice President Regulatory Affairs, AT&T to Marlene Dortch, Secretary, FCC, WC Docket No. 17-108, at 6 (Sept. 27, 2017) (AT&T Opposition).

336. In responding to NHMC's underlying FOIA requests, we produced nearly 70,000 pages of records responsive to the requests.¹¹³² The documents we provided to NHMC included informal consumer complaints filed with the Consumer and Governmental Affairs Bureau, data relating to the complaints, responses to the informal complaints from the carrier involved in a specific complaint—all filed by the consumer¹¹³³ under the category of Open Internet/Net Neutrality—and consumer complaint correspondence with the Open Internet Ombudsperson.¹¹³⁴ We provided this large quantity of documents to NHMC on a rolling basis and made all of the documents available to the public in our FOIA Electronic Reading Room.¹¹³⁵

337. Under Commission rules, and as noted by opponents to the motion, “NHMC is free to put into the record whatever it believes to be relevant via *ex parte* letters.”¹¹³⁶ NHMC began receiving the documents it claims are relevant to the proceeding on June 20, 2017.¹¹³⁷ If NHMC believed the documents were relevant to the proceeding at that time, it could have submitted them into the record at any time during the course of the following [four] months. It did not.¹¹³⁸ Rather, we agree with commenters that NHMC has raised “the mere existence of these complaints as a pretext for delay.”¹¹³⁹

338. The *Internet Freedom NPRM* sought comment on consumer harm in a variety of contexts and, in response, received over 22 million comments discussing consumers' view of the *Title II Order*, including any harm that may or may not have occurred under its rules. After routinely reviewing the consumer complaints over the past two years,¹¹⁴⁰ and conducting a robust review of the voluminous

¹¹³² A team of thirty-two employees from across the Commission spent a total of 1,017 hours redacting consumer's personal and sensitive material on the pages produced in accordance with the exemptions under FOIA. The Commission undertook this large document processing effort in spite of the fact that “the voluminous amount of separate and distinct records” requested by NHMC constituted “unusual circumstances” under the FOIA, which would have allowed the Commission an opportunity to significantly narrow the scope of the FOIA request. See 5 U.S.C. § 552(a)(6)(B).

¹¹³³ Typically, when a consumer files a complaint, the consumer selects the issue that is the subject of his or her complaint or an agent from the FCC Call Center will select a topic based on the consumer's description of the issue.

¹¹³⁴ The final production of documents was the result of negotiations between representatives of the Commission's Consumer & Governmental Affairs Bureau and Office of General Counsel and NHMC to narrow the scope of the request following NHMC's initial unreasonably burdensome FOIA requests. The ultimate FOIA production was based on NHMC's July 27, 2017 letter to the Commission accepting the Commission's offer to provide the following documents: “1,500 emails from ombudsperson(s);” “more than 47,000 consumer complaints;” “the spreadsheet with data for the more than 47,000 consumer complaints;” and “the 308 carrier responses that relate to the initial production of 1,000 consumer complaints.” See NHMC Joint Motion at Attachments 8, 9.

¹¹³⁵ Response to NHMC FOIA Request, FCC.gov, <https://www.fcc.gov/response-nhmc-foia-request> (last updated Sept. 14, 2017); 5 U.S.C. § 552(a)(2)(D)(ii)(I) (permitting the agency to publicly disclose documents in response to a FOIA request that “the agency determines have become or are likely to become the subject of subsequent requests for substantially the same records”).

¹¹³⁶ NCTA and USTelecom Opposition at 5.

¹¹³⁷ As noted by NHMC, “CGB's first formal response to NHMC's FOIA requests occurred on June 20, 2017.” NHMC Joint Motion at 4. This first sample was followed by the full set of documents, produced on a rolling basis on August 24, August 29, September 5, and September 14, 2017.

¹¹³⁸ We are confident that NHMC is familiar with how to file documents in ECFS that it believes are relevant to this proceeding given the numerous filings it has made in this docket, including the NHMC Joint Motion and NHMC Joint Response.

¹¹³⁹ AT&T Opposition at 6.

¹¹⁴⁰ See *supra* para. 295 (noting that the Consumer and Governmental Affairs Bureau and the Enforcement Bureau have engaged in an ongoing review of consumer complaints submitted to the Ombudsperson and the Commission's Consumer Complaint Center since the rules from the *Title II Order* became effective in June 2015).

record in this proceeding, we agree with opponents to the motion that “it is exceedingly unlikely that these informal complaints identify any net neutrality ‘problem’ that [advocates] have somehow overlooked in their many massive submissions in this docket.”¹¹⁴¹ The Commission takes consumer complaints seriously and finds them valuable in informing us about trends in the marketplace, but we reiterate that they are informal complaints that, in most instances, have not been verified.¹¹⁴² Further, the majority of these informal complaints do not allege conduct implicating the Open Internet rules.¹¹⁴³ Of the complaints that do discuss ISPs, they often allege frustration with a person or entity, but do not allege wrongdoing under the Open Internet rules. Further, we are not required to resolve all of these informal complaints before proceeding with a rulemaking.¹¹⁴⁴ Since we do not rely on these informal complaints as the basis for the decisions we make today, we do not have an obligation to incorporate them into the record.¹¹⁴⁵

339. We are convinced that we have a full and complete record on which to base our determination today without incorporating the materials requested by NHMC. Further, because the record remained open for over three months after the complete production of documents under NHMC FOIA’s request, we believe that NHMC had ample opportunity to “meaningfully review the informal complaint materials and provide comment.”¹¹⁴⁶

VII. PROCEDURAL MATTERS

A. Final Regulatory Flexibility Analysis

340. As required by the Regulatory Flexibility Act (RFA),¹¹⁴⁷ an Initial Regulatory Flexibility Analysis (IRFA) was incorporated into the *Restoring Internet Freedom NPRM*.¹¹⁴⁸ The Commission sought written public comment on the possible significant economic impact on small entities regarding the proposals addressed in the *Internet Freedom NPRM*, including comments on the IRFA. Pursuant to the RFA, a Final Regulatory Flexibility Analysis is set forth in Appendix B.

B. Paperwork Reduction Act Analysis

341. This document contains new or modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. It will be submitted to the Office of Management and Budget (OMB) for review under section 3507(d) of the PRA. OMB, the general public, and other federal agencies are invited to comment on the new information collection requirements

¹¹⁴¹ Letter from Henry Hultquist, Vice President Regulatory Affairs, AT&T, to Marlene Dortch, Secretary, FCC, WC Docket No. 17-108, at 6 (Sept. 27, 2017) (AT&T White Paper on APA Issues).

¹¹⁴² See *supra* para. 295 (noting that while the Commission analyzes informal consumer complaints, it does not expend its limited resources investigating each complaint it receives).

¹¹⁴³ See, e.g., NCTA and USTelecom Opposition at 3; AT&T Opposition at 6.

¹¹⁴⁴ See, e.g., *FCC v. Schreiber*, 381 U.S. 279, 289 (1965) (holding that Section 4(j) of the Communications Act “empowers the Federal Communications Commission to ‘conduct its proceedings in such manner as will best conduce to the proper dispatch of business and to the ends of justice’”).

¹¹⁴⁵ See, e.g., *American Radio Relay League, Inc. v. FCC*, 524 F.3d 227, 237 (D.C. Cir. 2008) (finding “studies upon which an agency relies in promulgating a rule must be made available during the rulemaking in order to afford interested persons meaningful notice and an opportunity for comment”); *Portland Cement Ass’n v. Ruckelshaus*, 486 F.2d 375, 393 (D.C. Cir. 1973) (finding that “[i]t is not consonant with the purpose of a rule-making proceeding to promulgate rules on the basis of inadequate data, or on data that, [to a] critical degree, is known only to the agency”).

¹¹⁴⁶ NHMC Joint Response at 5.

¹¹⁴⁷ See 5 U.S.C. § 603.

¹¹⁴⁸ 2017 *Restoring Internet Freedom NPRM*, Appx. B.

contained in this proceeding. In addition, we note that pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4), we previously sought specific comment on how the Commission might further reduce the information collection burden for small business concerns with fewer than 25 employees.

342. In this present document, we require any person providing broadband Internet access service to publicly disclose accurate information regarding the network management practices, performance, and commercial terms of their broadband Internet access services sufficient to enable the Commission to identify market entry barriers and for consumers to make informed choices regarding the purchase and use of such services and entrepreneurs and other small businesses to develop, market, and maintain Internet offerings. We have assessed the effects of this rule and find that any burden on small businesses will be minimal because (1) the rule gives broadband providers flexibility in how to implement the disclosure rule, (2) the rule gives providers adequate time to develop cost-effective methods of compliance, and (3) the rule eliminates the additional reporting obligations adopted in the *Title II Order*.

C. Congressional Review Act

343. The Commission will send a copy of this Report and Order to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A).

D. Data Quality Act

344. The Commission certifies that it has complied with the Office of Management and Budget Final Information Quality Bulletin for Peer Review, 70 Fed. Reg. 2664 (2005), and the Data Quality Act, Pub. L. No. 106-554 (2001), codified at 44 U.S.C. § 3516 note, with regard to its reliance on influential scientific information in the Declaratory Ruling, Report and Order, and Order in GN Docket No. 17-108.¹¹⁴⁹

E. Accessible Formats

345. To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty). Contact the FCC to request reasonable accommodations for filing comments (accessible format documents, sign language interpreters, CARTS, *etc.*) by e-mail: FCC504@fcc.gov; phone: (202) 418-0530 (voice), (202) 418-0432 (TTY).

VIII. ORDERING CLAUSES

346. Accordingly, IT IS ORDERED that, pursuant to sections 3, 4, 201(b), 218, 230, 231, 257, 303, 309, 332, 403, 501, and 503 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 153, 154, 201(b), 218, 230, 231, 257, 303, 309, 332, 403, 501, 503, this Declaratory Ruling, Report and Order, and Order IS ADOPTED.

347. IT IS FURTHER ORDERED that parts 1, 8, and 20 of the Commission's rules ARE AMENDED as set forth in Appendix A.

348. IT IS FURTHER ORDERED that this Declaratory Ruling, Report and Order, and Order SHALL BE effective 60 days after publication in the Federal Register, except that those amendments which contain new or modified information collection requirements that require approval by the Office of Management and Budget under the Paperwork Reduction Act WILL BECOME EFFECTIVE after the Commission publishes a notice in the Federal Register announcing such approval and the relevant effective date. It is our intention in adopting the foregoing Declaratory Ruling and these rule changes that, if any provision of the Declaratory Ruling or the rules, or the application thereof to any person or

¹¹⁴⁹ See Letter from Wireline Competition Bureau, FCC, to Marlene Dortch, Secretary, FCC, GN Docket No. 09-191, WC Docket No. 07-52 (filed Dec. 13, 2010).

circumstance, is held to be unlawful, the remaining portions of such Declaratory Ruling and the rules not deemed unlawful, and the application of such Declaratory Ruling and the rules to other person or circumstances, shall remain in effect to the fullest extent permitted by law.

349. IT IS FURTHER ORDERED that the INCOMPAS Petition to Modify Protective Orders is DENIED.

350. IT IS FURTHER ORDERED that the National Hispanic Media Coalition (NHMC) Motion Regarding Informal Consumer Complaints is DENIED.

351. IT IS FURTHER ORDERED that the Commission's Consumer & Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Declaratory Ruling, Report and Order, and Order to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. 801(a)(1)(A).

352. IT IS FURTHER ORDERED that the Commission's Consumer & Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Declaratory Ruling, Report and Order, and Order, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

APPENDIX A**Final Rules**

The Federal Communications Commission amends 47 CFR Parts 1, 8, and 20 as follows:

PART 1 – PRACTICE AND PROCEDURE

1. Amend section 1.49 by revising paragraph (f)(1)(i) to read as follows:

§ 1.49 Specifications as to pleadings and documents.

* * * * *

(f) * * *

(1) * * *

(i) Formal complaint proceedings under Section 208 of the Act and rules in §§1.720 through 1.736, and pole attachment complaint proceedings under Section 224 of the Act and rules in §§1.1401 through 1.1424;

* * * * *

2. Amend the heading of part 8 to read as follows:

PART 8: INTERNET FREEDOM

3. Amend the authority citation for part 8 to read as follows:

AUTHORITY: 47 U.S.C. §§ 154, 201(b), 218, 257, and 303.

4. Amend section 8.1 to read as follows:

§8.1 Transparency.

(a) Any person providing broadband Internet access service shall publicly disclose accurate information regarding the network management practices, performance, and commercial terms of its broadband Internet access services sufficient to enable consumers to make informed choices regarding the purchase and use of such services and entrepreneurs and other small businesses to develop, market, and maintain Internet offerings. Such disclosure shall be made via a publicly available, easily accessible website or through transmittal to the Commission.

(b) Broadband Internet access service is a mass-market retail service by wire or radio that provides the capability to transmit data to and receive data from all or substantially all Internet endpoints, including any capabilities that are incidental to and enable the operation of the communications service, but excluding dial-up Internet access service. This term also encompasses any service that the Commission finds to be providing a functional equivalent of the service described in the previous sentence or that is used to evade the protections set forth in this part.

(c) A network management practice is reasonable if it is appropriate and tailored to achieving a legitimate network management purpose, taking into account the particular network architecture and technology of the broadband Internet access service.

5. Remove and delete in their entirety sections 8.2, 8.3, 8.5, 8.7, 8.9, 8.11, 8.12, 8.13, 8.14, 8.15, 8.16, 8.17, 8.18, and 8.19.

PART 20: COMMERCIAL MOBILE SERVICES

6. Amend Section 20.3 as follows:

§ 20.3 Definitions.

* * * * *

Commercial mobile radio service. * * *

* * * * *

(b) The functional equivalent of such a mobile service described in paragraph (a) of this section.

* * * * *

Interconnected Service. A service:

(a) That is interconnected with the public switched network, or interconnected with the public switched network through an interconnected service provider, that gives subscribers the capability to communicate to or receive communication from all other users on the public switched network; or

(b) * * *

* * * * *

Public Switched Network. The network that includes any common carrier switched network, whether by wire or radio, including local exchange carriers, interexchange carriers, and mobile service providers, that uses the North American Numbering Plan in connection with the provision of switched services.

APPENDIX B

Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980 (RFA),¹¹⁵⁰ as amended, Initial Regulatory Flexibility Analysis (IRFAs) was incorporated in the *Notice of Proposed Rule Making (Internet Freedom NPRM)* for this proceeding.¹¹⁵¹ The Commission sought written public comment on the proposals in the *Internet Freedom NPRM*, including comment on the IRFA. The Commission received comments on the *Internet Freedom NPRM* IRFA, which are discussed below.¹¹⁵² This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.¹¹⁵³

A. Need for, and Objectives of, the Final Rules

1. In order to return the Internet to the light-touch regulatory environment that allowed investment to increase and consumers to benefit, we return broadband Internet access service to its longstanding classification as an information service,¹¹⁵⁴ and eliminate several rules adopted in the *Title II Order*, including the general conduct standard, the ban on paid prioritization, and the no-blocking and no-throttling rules.¹¹⁵⁵ We retain the transparency rule adopted in the *Open Internet Order*,¹¹⁵⁶ with modifications, while eliminating the additional reporting obligations created in the *Title II Order*, the *Title II Order*'s direct notification requirement, and the broadband label "safe harbor."¹¹⁵⁷

2. We also eliminate the formal complaint procedures under Part 8 of the Act, because the informal complaint procedures are sufficient.¹¹⁵⁸ We eliminate the other components of the enforcement regime created in the *Title II Order*, including the position of Open Internet Ombudsperson and the issuance of advisory opinions.¹¹⁵⁹ We also return mobile broadband Internet access service to its longstanding definition as a private mobile radio service under section 332 of the Communications Act.¹¹⁶⁰

3. The transparency rule we adopt is necessary because properly tailored transparency disclosures provide valuable information to the Commission to enable it to meet its statutory obligation to observe the communications marketplace to monitor the introduction of new services and technologies, and to identify and eliminate potential marketplace barriers for the provision of information service. Such disclosures also provide valuable information to other Internet ecosystem participants; transparency substantially reduces the possibility that ISPs will engage in harmful practices, and it incentivizes quick corrective measures by providers if problematic conduct is identified. Appropriate disclosures help

¹¹⁵⁰ 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601-612 has been amended by the Contract With America Advancement Act of 1996, Public Law No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

¹¹⁵¹ *Restoring Internet Freedom*, Notice of Proposed Rulemaking, 32 FCC Rcd 4434 (2017) (*Internet Freedom NPRM*).

¹¹⁵² See, e.g., WISPA Comments at 2.

¹¹⁵³ See 5 U.S.C. § 604.

¹¹⁵⁴ See *supra* Part III.A.

¹¹⁵⁵ See *supra* Part IV.B.

¹¹⁵⁶ See *supra* Part IV.B.2.

¹¹⁵⁷ See *id.*

¹¹⁵⁸ See *supra* Part IV.C.

¹¹⁵⁹ See *id.*

¹¹⁶⁰ See *supra* Part III.B.

consumers make informed choices about their purchase and use of broadband services. Moreover, clear disclosures improve consumer confidence in ISPs' practices, ultimately increasing user adoption and leading to additional investment and innovation, while providing startups and other edge providers the necessary information to innovate and improve products.

4. Our enforcement changes will ensure that ISPs will be held accountable for any violations of the transparency rule. We eliminate the formal complaint procedures because the informal complaint procedure, in conjunction with other redress options including consumer protection laws, will sufficiently protect consumers. Additionally, we eliminate the position of Open Internet Ombudsperson because the staff from the Consumer and Governmental Affairs Bureau—other than the Ombudsperson—have been performing the Ombudsperson functions envisioned by the *Title II Order*. We also eliminate the issuance of enforcement advisory opinions, because enforcement advisory opinions do not diminish regulatory uncertainty, particularly for small providers. Instead, they add costs and uncertain timelines since there is no specific timeframe within which to act, which can also inhibit innovation.

5. We return mobile broadband Internet access service to its original classification as a private mobile radio service because we find that the definitions of the terms “public switched network” and “interconnected service” that the Commission adopted in the 1994 *Second CMRS Report and Order* reflect a better reading of the Act. Accordingly, we readopt those definitions.

6. We restore the definition of interconnected service that existed prior to the *Title II Order*. Prior to that Order, the term “interconnected service” was defined under the Commission’s rules as a service “that gives subscribers the capability to communicate to or receive communication from *all* other users on the public switched network.” The *Title II Order* modified this definition by deleting the word “all,” finding that mobile broadband Internet access service should still be considered an interconnected service even if it only enabled users to communicate with “some” other users of the public switched network rather than all. We conclude that the better reading of “interconnected service” is one that enables communication between its users and all other users of the public switched network.

7. The legal basis for the rules we adopt today includes sections 3, 4, 201(b), 218, 230, 231, 257, 303, 309, 332, 403, 501, and 503 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 153, 154, 201(b), 218, 230, 231, 257, 303, 309, 332, 403, 501, 503. The transparency rule we adopt today relies on multiple sources of legal authority, including section 257, section 218, and Title III of the Communications Act.

8. Section 257 requires the Commission to make triennial reports to Congress, and those triennial reports must identify “market entry barriers for entrepreneurs and other small businesses in the provision and ownership of telecommunications services and information services.”¹¹⁶¹ By requiring disclosures, the transparency rule will aid in the elimination of barriers to entry. Section 218, which applies to all ISPs that are common carriers by virtue of additional services they offer, directs the Commission to “keep itself informed as to the manner and method in which the [business of carriers] is conducted and as to technical developments and improvements in wire and radio communication and radio transmission of energy to the end that the benefits of new inventions and developments may be made available to the people of the United States.”¹¹⁶²

9. Our Title III licensing authority also supports application of the transparency rule to wireless ISPs. The Commission has previously relied on its Title III licensing authority to apply the transparency rule to wireless ISPs, and it retains that authority today.

B. Summary of Significant Issues Raised by Public Comments to the IRFA

10. The Wireless Internet Service Providers Association (WISPA) argued that the IRFA was

¹¹⁶¹ 47 U.S.C. § 257.

¹¹⁶² 47 U.S.C. § 218.

incomplete and inaccurate.¹¹⁶³

C. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration

11. Pursuant to the Small Business Jobs Act of 2010, which amended the RFA, the Commission is required to respond to any comments filed by the Chief Counsel of the Small Business Administration (SBA), and to provide a detailed statement of any change made to the proposed rule(s) as a result of those comments.¹¹⁶⁴

12. The Chief Counsel did not file any comments in response to the proposed rule(s) in this proceeding.

D. Description and Estimate of the Number of Small Entities to Which the Final Rule May Apply

13. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.¹¹⁶⁵ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”¹¹⁶⁶ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.¹¹⁶⁷ A small business concern is one that: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).¹¹⁶⁸ Nationwide, there are a total of approximately 28.2 million small businesses, according to the SBA.¹¹⁶⁹ A “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”¹¹⁷⁰

1. Total Small Entities

14. *Small Entities, Small Organizations, Small Governmental Jurisdictions.* Our actions, over time, may affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three comprehensive small entity size standards that could be directly affected herein.¹¹⁷¹ First, while there are industry specific size standards for small businesses that are used in the regulatory flexibility analysis, according to data from the SBA’s Office of Advocacy, in general a small business is an independent business having fewer than 500 employees.¹¹⁷² These types of small businesses represent

¹¹⁶³ Letter from S. Jenell Trigg, Counsel to WISPA, to Marlene H. Dortch, FCC Secretary, WC Docket No. 17-108, at 2 (filed May 10, 2017) (“WISPA Ex Parte Letter”).

¹¹⁶⁴ 5 U.S.C. § 604(a)(3).

¹¹⁶⁵ 5 U.S.C. § 603(b)(3).

¹¹⁶⁶ 5 U.S.C. § 601(6).

¹¹⁶⁷ 5 U.S.C. § 601(3) (incorporating by reference the definition of “small business concern” in 15 U.S.C. § 632). Pursuant to the RFA, the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.” 5 U.S.C. § 601(3).

¹¹⁶⁸ See 15 U.S.C. § 632.

¹¹⁶⁹ See SBA, Office of Advocacy, “Frequently Asked Questions,” http://www.sba.gov/sites/default/files/FAQ_March_2014_0.pdf (last visited Mar. 8, 2016).

¹¹⁷⁰ 5 U.S.C. § 601(4).

¹¹⁷¹ See 5 U.S.C. § 601(3)-(6).

¹¹⁷² See SBA, Office of Advocacy, “Frequently Asked Questions, Question 1 – What is a small business?” https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016_WEB.pdf (June 2016)

99.9% of all businesses in the United States which translates to 28.8 million businesses.¹¹⁷³ Next, the type of small entity described as a “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”¹¹⁷⁴ Nationwide, as of Aug 2016, there were approximately 356,494 small organizations based on registration and tax data filed by nonprofits with the Internal Revenue Service (IRS). Finally, the small entity described as a “small governmental jurisdiction” is defined generally as “governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.”¹¹⁷⁵ U.S. Census Bureau data from the 2012 Census of Governments¹¹⁷⁶ indicates that there were 90,056 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.¹¹⁷⁷ Of this number there were 37, 132 General purpose governments (county¹¹⁷⁸, municipal and town or township¹¹⁷⁹) with populations of less than 50,000 and 12,184 Special purpose governments (independent school districts¹¹⁸⁰ and special districts¹¹⁸¹) with populations of less than 50,000. The 2012 U.S. Census Bureau data for most types of governments in the local government category shows that the majority of these governments have populations of less than 50,000.¹¹⁸² Based on this data we estimate

¹¹⁷³ See SBA, Office of Advocacy, “Frequently Asked Questions, Question 2- How many small business are there in the U.S.?” https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016_WEB.pdf (June 2016).

¹¹⁷⁴ 5 U.S.C. § 601(4).

¹¹⁷⁵ 5 U.S.C. § 601(5).

¹¹⁷⁶ See 13 U.S.C. § 161. The Census of Government is conducted every five (5) years compiling data for years ending with “2” and “7”. See also Program Description Census of Government, <https://factfinder.census.gov/faces/affhelp/jsf/pages/metadata.xhtml?lang=en&type=program&id=program.en.COG#>.

¹¹⁷⁷ See U.S. Census Bureau, 2012 Census of Governments, Local Governments by Type and State: 2012 - United States-States. <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG02.US01>. Local governmental jurisdictions are classified in two categories - General purpose governments (county, municipal and town or township) and Special purpose governments (special districts and independent school districts).

¹¹⁷⁸ See U.S. Census Bureau, 2012 Census of Governments, County Governments by Population-Size Group and State: 2012 - United States-States. <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG06.US01>. There were 2,114 county governments with populations less than 50,000.

¹¹⁷⁹ See U.S. Census Bureau, 2012 Census of Governments, Subcounty General-Purpose Governments by Population-Size Group and State: 2012 - United States – States. <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG07.US01>. There were 18,811 municipal and 16,207 town and township governments with populations less than 50,000.

¹¹⁸⁰ See U.S. Census Bureau, 2012 Census of Governments, Elementary and Secondary School Systems by Enrollment-Size Group and State: 2012 - United States-States. <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG11.US01>. There were 12,184 independent school districts with enrollment populations less than 50,000.

¹¹⁸¹ See U.S. Census Bureau, 2012 Census of Governments, Special District Governments by Function and State: 2012 - United States-States. <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG09.US01>. [The U.S. Census Bureau data did not provide a population breakout for special district governments.](#)

¹¹⁸² See U.S. Census Bureau, 2012 Census of Governments, County Governments by Population-Size Group and State: 2012 - United States-States - <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG06.US01>; Subcounty General-Purpose Governments by Population-Size Group and State: 2012 - United States–States - <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG07.US01>; and Elementary and Secondary School Systems by Enrollment-Size Group and State: 2012 - United States-States. <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG11.US01>. While U.S. Census Bureau data did not provide a population breakout for special district governments, if the population of less than 50,000 for this category of local government is consistent with the other types of local governments the majority of the 38, 266 special district governments have populations of less than 50,000.

that at least 49,316 local government jurisdictions fall in the category of “small governmental jurisdictions.”¹¹⁸³

2. Broadband Internet Access Service Providers

15. The rules we adopt apply to broadband Internet access service providers. The Economic Census places these firms, whose services might include Voice over Internet Protocol (VoIP), in either of two categories, depending on whether the service is provided over the provider’s own telecommunications facilities (e.g., cable and DSL ISPs), or over client-supplied telecommunications connections (e.g., dial-up ISPs). The former are within the category of Wired Telecommunications Carriers,¹¹⁸⁴ which has an SBA small business size standard of 1,500 or fewer employees.¹¹⁸⁵ These are also labeled “broadband.” The latter are within the category of All Other Telecommunications,¹¹⁸⁶ which has a size standard of annual receipts of \$32.5 million or less.¹¹⁸⁷ These are labeled non-broadband. Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.¹¹⁸⁸ For the second category, census data for 2012 show that there were 1,442 firms that operated for the entire year. Of those firms, a total of 1,400 had annual receipts less than \$25 million.¹¹⁸⁹ Consequently, we estimate that the majority of broadband Internet access service provider firms are small entities.

16. The broadband Internet access service provider industry has changed since this definition was introduced in 2007. The data cited above may therefore include entities that no longer provide broadband Internet access service, and may exclude entities that now provide such service. To ensure that this FRFA describes the universe of small entities that our action might affect, we discuss in turn several different types of entities that might be providing broadband Internet access service. We note that, although we have no specific information on the number of small entities that provide broadband Internet access service over unlicensed spectrum, we include these entities in our Initial Regulatory Flexibility Analysis.

3. Wireline Providers

17. *Wired Telecommunications Carriers.* The U.S. Census Bureau defines this industry as “establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired communications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services, wired (cable) audio and video programming distribution, and wired broadband Internet

¹¹⁸³ *Id.*

¹¹⁸⁴ U.S. Census Bureau, 2012 NAICS Definitions, “517110 Wired Telecommunications Carriers,” <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517110&search=2012%20NAICS%20Search>.

¹¹⁸⁵ 13 CFR § 121.201, NAICS code 517110.

¹¹⁸⁶ U.S. Census Bureau, 2012 NAICS Definitions, “517919 All Other Telecommunications,” <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517919&search=2012%20NAICS%20Search>.

¹¹⁸⁷ 13 CFR § 121.201, NAICS code 517919.

¹¹⁸⁸ http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table.

¹¹⁸⁹ U.S. Census Bureau, 2012 *Economic Census of the United States*, Table EC0751SSSZ4, Information: Subject Series - Establishment and Firm Size: Receipts Size of Firms for the United States: 2012 NAICS Code 517919, http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ1&prodType=table.

services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.”¹¹⁹⁰ The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.¹¹⁹¹ Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.¹¹⁹² Thus, under this size standard, the majority of firms in this industry can be considered small.

18. *Local Exchange Carriers (LECs)*. Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to local exchange services. The closest applicable NAICS Code category is for Wired Telecommunications Carriers, as defined in paragraph 12 of this IRFA. Under that size standard, such a business is small if it has 1,500 or fewer employees.¹¹⁹³ Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.¹¹⁹⁴ The Commission therefore estimates that most providers of local exchange carrier service are small entities that may be affected by the rules adopted.

19. *Incumbent Local Exchange Carriers (incumbent LECs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. The closest applicable NAICS Code category is Wired Telecommunications Carriers as defined in paragraph 13 of this IRFA. Under that size standard, such a business is small if it has 1,500 or fewer employees.¹¹⁹⁵ According to Commission data, 3,117 firms operated in that year. Of this total, 3,083 operated with fewer than 1,000 employees.¹¹⁹⁶ Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by the rules and policies adopted. One thousand three hundred and seven (1,307) Incumbent Local Exchange Carriers reported that they were incumbent local exchange service providers.¹¹⁹⁷ Of this total, an estimated 1,006 have 1,500 or fewer employees.¹¹⁹⁸

20. *Competitive Local Exchange Carriers (Competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers*. Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate NAICS Code category is Wired Telecommunications Carriers, as defined in paragraph 12 of this IRFA. Under that size standard, such a business is small if it has 1,500 or fewer employees. U.S. Census data for 2012 indicate that 3,117 firms operated during that year. Of that number, 3,083 operated

¹¹⁹⁰ <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

¹¹⁹¹ See 13 CFR § 120.201, NAICS Code 517110.

¹¹⁹² http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table.

¹¹⁹³ See 13 CFR § 120.201, NAICS Code 517110.

¹¹⁹⁴ 2012 U.S. Economic Census, NAICS Code 517110, http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table.

¹¹⁹⁵ See 13 CFR § 120.201, NAICS Code 517110.

¹¹⁹⁶ 2012 U.S. Economic Census, NAICS Code 517110, http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table.

¹¹⁹⁷ See *Trends in Telephone Service*, Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*).

¹¹⁹⁸ *Id.*

with fewer than 1,000 employees.¹¹⁹⁹ Based on this data, the Commission concludes that the majority of Competitive LECs, CAPs, Shared-Tenant Service Providers, and Other Local Service Providers are small entities. According to Commission data, 1,442 carriers reported that they were engaged in the provision of either competitive local exchange services or competitive access provider services.¹²⁰⁰ Of these 1,442 carriers, an estimated 1,256 have 1,500 or fewer employees. In addition, 17 carriers have reported that they are Shared-Tenant Service Providers, and all 17 are estimated to have 1,500 or fewer employees.¹²⁰¹ In addition, 72 carriers have reported that they are Other Local Service Providers.¹²⁰² Of this total, 70 have 1,500 or fewer employees.¹²⁰³ Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and Other Local Service Providers are small entities that may be affected by the adopted rules.

21. We have included small incumbent LECs in this present RFA analysis. As noted above, a “small business” under the RFA is one that, *inter alia*, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer employees), and “is not dominant in its field of operation.”¹²⁰⁴ The SBA’s Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not “national” in scope.¹²⁰⁵ We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

22. *Interexchange Carriers (IXCs)*. Neither the Commission nor the SBA has developed a definition for Interexchange Carriers. The closest NAICS Code category is Wired Telecommunications Carriers as defined in paragraph 13 of this IRFA. The applicable size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees.¹²⁰⁶ According to Commission data, 359 companies reported that their primary telecommunications service activity was the provision of interexchange services.¹²⁰⁷ Of this total, an estimated 317 have 1,500 or fewer employees and 42 have more than 1,500 employees.¹²⁰⁸ Consequently, the Commission estimates that the majority of interexchange service providers are small entities that may be affected by rules adopted.

23. *Operator Service Providers (OSPs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for operator service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.¹²⁰⁹ According to Commission data, 33 carriers have

¹¹⁹⁹http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ5&prodType=table.

¹²⁰⁰ See *Trends in Telephone Service* at tbl. 5.3.

¹²⁰¹ *Id.*

¹²⁰² *Id.*

¹²⁰³ *Id.*

¹²⁰⁴ 5 U.S.C. § 601(3).

¹²⁰⁵ Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, Federal Communications Commission (filed May 27, 1999). The Small Business Act contains a definition of “small business concern,” which the RFA incorporates into its own definition of “small business.” 15 U.S.C. § 632(a); 5 U.S.C. § 601(3). SBA regulations interpret “small business concern” to include the concept of dominance on a national basis. 13 CFR § 121.102(b).

¹²⁰⁶ 13 CFR § 121.201, NAICS code 517110.

¹²⁰⁷ See *Trends in Telephone Service* at tbl. 5.3.

¹²⁰⁸ *Id.*

¹²⁰⁹ 13 CFR § 121.201, NAICS code 517110.

reported that they are engaged in the provision of operator services. Of these, an estimated 31 have 1,500 or fewer employees and two have more than 1,500 employees.¹²¹⁰ Consequently, the Commission estimates that the majority of OSPs are small entities that may be affected by our adopted rules.

24. *Other Toll Carriers.* Neither the Commission nor the SBA has developed a definition for small businesses specifically applicable to Other Toll Carriers. This category includes toll carriers that do not fall within the categories of interexchange carriers, operator service providers, prepaid calling card providers, satellite service carriers, or toll resellers. The closest applicable NAICS Code category is for Wired Telecommunications Carriers as defined above. Under the applicable SBA size standard, such a business is small if it has 1,500 or fewer employees.¹²¹¹ Census data for 2012 shows that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.¹²¹² Thus, under this category and the associated small business size standard, the majority of Other Toll Carriers can be considered small. According to internally developed Commission data, 284 companies reported that their primary telecommunications service activity was the provision of other toll carriage.¹²¹³ Of these, an estimated 279 have 1,500 or fewer employees.¹²¹⁴ Consequently, the Commission estimates that most Other Toll Carriers are small entities that may be affected by rules adopted pursuant to the Order.

4. Wireless Providers- Fixed and Mobile

25. The broadband Internet access service provider category covered by these rules may cover multiple wireless firms and categories of regulated wireless services. Thus, to the extent the wireless services listed below are used by wireless firms for broadband Internet access service, the proposed actions may have an impact on those small businesses as set forth above and further below. In addition, for those services subject to auctions, we note that, as a general matter, the number of winning bidders that claim to qualify as small businesses at the close of an auction does not necessarily represent the number of small businesses currently in service. Also, the Commission does not generally track subsequent business size unless, in the context of assignments and transfers or reportable eligibility events, unjust enrichment issues are implicated.

26. *Wireless Telecommunications Carriers (except Satellite).* This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves, such as cellular services, paging services, wireless internet access, and wireless video services.¹²¹⁵ The appropriate size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees. For this industry, Census data for 2012 show that there were 967 firms that operated for the entire year. Of this total, 955 firms had fewer than 1,000 employees.¹²¹⁶ Thus under this category and the associated size standard, the Commission estimates that the majority of wireless telecommunications carriers (except satellite) are small entities. Similarly, according to internally developed Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service (PCS), and Specialized

¹²¹⁰ *Trends in Telephone Service*, tbl. 5.3.

¹²¹¹ 13 CFR § 121.201, NAICS code 517110.

¹²¹² http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ5&prodType=table.

¹²¹³ *Trends in Telephone Service* at tbl. 5.3.

¹²¹⁴ *Id.*

¹²¹⁵ NAICS Code 517210. See <https://www.census.gov/econ/isp/sampler.php?naicscode=517210&naicslevel=6#>.

¹²¹⁶ http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ5&prodType=table.

Mobile Radio (SMR) services.¹²¹⁷ Of this total, an estimated 261 have 1,500 or fewer employees.¹²¹⁸ Consequently, the Commission estimates that approximately half of these firms can be considered small. Thus, using available data, we estimate that the majority of wireless firms can be considered small.

27. The Commission's own data—available in its Universal Licensing System—indicate that, as of October 25, 2016, there are 280 Cellular licensees that will be affected by our actions today.¹²¹⁹ The Commission does not know how many of these licensees are small, as the Commission does not collect that information for these types of entities. Similarly, according to internally developed Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service, and Specialized Mobile Radio Telephony services.¹²²⁰ Of this total, an estimated 261 have 1,500 or fewer employees, and 152 have more than 1,500 employees.¹²²¹ Thus, using available data, we estimate that the majority of wireless firms can be considered small.

28. *Wireless Communications Services.* This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined “small business” for the wireless communications services (WCS) auction as an entity with average gross revenues of \$40 million for each of the three preceding years, and a “very small business” as an entity with average gross revenues of \$15 million for each of the three preceding years.¹²²² The SBA has approved these definitions.¹²²³

29. *1670–1675 MHz Services.* This service can be used for fixed and mobile uses, except aeronautical mobile.¹²²⁴ An auction for one license in the 1670–1675 MHz band was conducted in 2003. One license was awarded. The winning bidder was not a small entity.

30. *Wireless Telephony.* Wireless telephony includes cellular, personal communications services, and specialized mobile radio telephony carriers. As noted, the SBA has developed a small business size standard for Wireless Telecommunications Carriers (except Satellite).¹²²⁵ Under the SBA small business size standard, a business is small if it has 1,500 or fewer employees.¹²²⁶ According to Commission data, 413 carriers reported that they were engaged in wireless telephony.¹²²⁷ Of these, an

¹²¹⁷ See *Trends in Telephone Service* at tbl. 5.3.

¹²¹⁸ *Id.*

¹²¹⁹ See <http://wireless.fcc.gov/uls>. For the purposes of this FRFA, consistent with Commission practice for wireless services, the Commission estimates the number of licensees based on the number of unique FCC Registration Numbers.

¹²²⁰ See Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, *Trends in Telephone Service* at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*), https://apps.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

¹²²¹ See *id.*

¹²²² *Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service (WCS)*, Report and Order, 12 FCC Rcd 10785, 10879, para. 194 (1997).

¹²²³ See Letter from Aida Alvarez, Administrator, SBA, to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC (filed Dec. 2, 1998) (*Alvarez Letter 1998*).

¹²²⁴ 47 CFR § 2.106; see generally 47 CFR §§ 27.1-27.70.

¹²²⁵ 13 CFR § 121.201, NAICS code 517210.

¹²²⁶ *Id.*

¹²²⁷ *Trends in Telephone Service*, tbl. 5.3.

estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees.¹²²⁸ Therefore, a little less than one third of these entities can be considered small.

31. *Broadband Personal Communications Service.* The broadband personal communications services (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission initially defined a “small business” for C- and F-Block licenses as an entity that has average gross revenues of \$40 million or less in the three previous calendar years.¹²²⁹ For F-Block licenses, an additional small business size standard for “very small business” was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.¹²³⁰ These small business size standards, in the context of broadband PCS auctions, have been approved by the SBA.¹²³¹ No small businesses within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90 winning bidders that claimed small business status in the first two C-Block auctions. A total of 93 bidders that claimed small business status won approximately 40 percent of the 1,479 licenses in the first auction for the D, E, and F Blocks.¹²³² On April 15, 1999, the Commission completed the reauction of 347 C-, D-, E-, and F-Block licenses in Auction No. 22.¹²³³ Of the 57 winning bidders in that auction, 48 claimed small business status and won 277 licenses.

32. On January 26, 2001, the Commission completed the auction of 422 C and F Block Broadband PCS licenses in Auction No. 35. Of the 35 winning bidders in that auction, 29 claimed small business status.¹²³⁴ Subsequent events concerning Auction 35, including judicial and agency determinations, resulted in a total of 163 C and F Block licenses being available for grant. On February 15, 2005, the Commission completed an auction of 242 C-, D-, E-, and F-Block licenses in Auction No. 58. Of the 24 winning bidders in that auction, 16 claimed small business status and won 156 licenses.¹²³⁵ On May 21, 2007, the Commission completed an auction of 33 licenses in the A, C, and F Blocks in Auction No. 71.¹²³⁶ Of the 12 winning bidders in that auction, five claimed small business status and won 18 licenses.¹²³⁷ On August 20, 2008, the Commission completed the auction of 20 C-, D-, E-, and F-

¹²²⁸ *Id.*

¹²²⁹ See *Amendment of Parts 20 and 24 of the Commission’s Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap; Amendment of the Commission’s Cellular/PCS Cross-Ownership Rule*, Report and Order, 11 FCC Rcd 7824, 7850-52, paras. 57-60 (1996) (*PCS Report and Order*); see also 47 CFR § 24.720(b).

¹²³⁰ See *PCS Report and Order*, 11 FCC Rcd at 7852, para. 60.

¹²³¹ See *Alvarez Letter 1998*.

¹²³² See *Broadband PCS, D, E and F Block Auction Closes*, Public Notice, Doc. No. 89838 (rel. Jan. 14, 1997).

¹²³³ See *C, D, E, and F Block Broadband PCS Auction Closes*, Public Notice, 14 FCC Rcd 6688 (WTB 1999). Before Auction No. 22, the Commission established a very small standard for the C Block to match the standard used for F Block. *Amendment of the Commission’s Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licensees*, Fourth Report and Order, 13 FCC Rcd 15743, 15768, para. 46 (1998).

¹²³⁴ See *C and F Block Broadband PCS Auction Closes; Winning Bidders Announced*, Public Notice, 16 FCC Rcd 2339 (2001).

¹²³⁵ See *Broadband PCS Spectrum Auction Closes; Winning Bidders Announced for Auction No. 58*, Public Notice, 20 FCC Rcd 3703 (2005).

¹²³⁶ See *Auction of Broadband PCS Spectrum Licenses Closes; Winning Bidders Announced for Auction No. 71*, Public Notice, 22 FCC Rcd 9247 (2007).

¹²³⁷ *Id.*

Block Broadband PCS licenses in Auction No. 78.¹²³⁸ Of the eight winning bidders for Broadband PCS licenses in that auction, six claimed small business status and won 14 licenses.¹²³⁹

33. *Specialized Mobile Radio Licenses.* The Commission awards “small entity” bidding credits in auctions for Specialized Mobile Radio (SMR) geographic area licenses in the 800 MHz and 900 MHz bands to firms that had revenues of no more than \$15 million in each of the three previous calendar years.¹²⁴⁰ The Commission awards “very small entity” bidding credits to firms that had revenues of no more than \$3 million in each of the three previous calendar years.¹²⁴¹ The SBA has approved these small business size standards for the 900 MHz Service.¹²⁴² The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction began on December 5, 1995, and closed on April 15, 1996. Sixty bidders claiming that they qualified as small businesses under the \$15 million size standard won 263 geographic area licenses in the 900 MHz SMR band. The 800 MHz SMR auction for the upper 200 channels began on October 28, 1997, and was completed on December 8, 1997. Ten bidders claiming that they qualified as small businesses under the \$15 million size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz SMR band.¹²⁴³ A second auction for the 800 MHz band was held on January 10, 2002 and closed on January 17, 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.¹²⁴⁴

34. The auction of the 1,053 800 MHz SMR geographic area licenses for the General Category channels began on August 16, 2000, and was completed on September 1, 2000. Eleven bidders won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band and qualified as small businesses under the \$15 million size standard.¹²⁴⁵ In an auction completed on December 5, 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were awarded.¹²⁴⁶ Of the 22 winning bidders, 19 claimed small business status and won 129 licenses. Thus, combining all four auctions, 41 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small businesses.

35. In addition, there are numerous incumbent site-by-site SMR licenses and licensees with extended implementation authorizations in the 800 and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR service pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than \$15 million. One firm has over \$15 million in revenues. In addition, we do not know how many of these firms have 1,500 or fewer employees, which is the SBA-determined size standard.¹²⁴⁷ We assume, for purposes of this

¹²³⁸ See *Auction of AWS-1 and Broadband PCS Licenses Closes; Winning Bidders Announced for Auction 78*, Public Notice, 23 FCC Rcd 12749 (WTB 2008).

¹²³⁹ *Id.*

¹²⁴⁰ 47 CFR § 90.814(b)(1).

¹²⁴¹ *Id.*

¹²⁴² See Letter from Aida Alvarez, Administrator, SBA, to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission (filed Aug. 10, 1999) (*Alvarez Letter 1999*).

¹²⁴³ See *Correction to Public Notice DA 96-586 “FCC Announces Winning Bidders in the Auction of 1020 Licenses to Provide 900 MHz SMR in Major Trading Areas,”* Public Notice, 18 FCC Rcd 18367 (WTB 1996).

¹²⁴⁴ See *Multi-Radio Service Auction Closes*, Public Notice, 17 FCC Rcd 1446 (WTB 2002).

¹²⁴⁵ See *800 MHz Specialized Mobile Radio (SMR) Service General Category (851–854 MHz) and Upper Band (861–865 MHz) Auction Closes; Winning Bidders Announced*, Public Notice, 15 FCC Rcd 17162 (2000).

¹²⁴⁶ See *800 MHz SMR Service Lower 80 Channels Auction Closes; Winning Bidders Announced*, Public Notice, 16 FCC Rcd 1736 (2000).

¹²⁴⁷ See generally 13 CFR § 121.201, NAICS code 517210.

analysis, that all of the remaining extended implementation authorizations are held by small entities, as defined by the SBA.

36. *Lower 700 MHz Band Licenses.* The Commission previously adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits.¹²⁴⁸ The Commission defined a “small business” as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.¹²⁴⁹ A “very small business” is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.¹²⁵⁰ Additionally, the lower 700 MHz Service had a third category of small business status for Metropolitan/Rural Service Area (MSA/RSA) licenses—“entrepreneur”—which is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years.¹²⁵¹ The SBA approved these small size standards.¹²⁵² An auction of 740 licenses (one license in each of the 734 MSAs/RSAs and one license in each of the six Economic Area Groupings (EAGs)) commenced on August 27, 2002, and closed on September 18, 2002. Of the 740 licenses available for auction, 484 licenses were won by 102 winning bidders. Seventy-two of the winning bidders claimed small business, very small business or entrepreneur status and won a total of 329 licenses.¹²⁵³ A second auction commenced on May 28, 2003, closed on June 13, 2003, and included 256 licenses: 5 EAG licenses and 476 Cellular Market Area licenses.¹²⁵⁴ Seventeen winning bidders claimed small or very small business status and won 60 licenses, and nine winning bidders claimed entrepreneur status and won 154 licenses.¹²⁵⁵ On July 26, 2005, the Commission completed an auction of 5 licenses in the Lower 700 MHz band (Auction No. 60). There were three winning bidders for five licenses. All three winning bidders claimed small business status.

37. In 2007, the Commission reexamined its rules governing the 700 MHz band in the *700 MHz Second Report and Order*.¹²⁵⁶ An auction of 700 MHz licenses commenced January 24, 2008 and closed on March 18, 2008, which included, 176 Economic Area licenses in the A Block, 734 Cellular Market Area licenses in the B Block, and 176 EA licenses in the E Block.¹²⁵⁷ Twenty winning bidders, claiming small business status (those with attributable average annual gross revenues that exceed \$15

¹²⁴⁸ See *Reallocation and Service Rules for the 698–746 MHz Spectrum Band (Television Channels 52–59)*, Report and Order, 17 FCC Rcd 1022 (2002) (*Channels 52–59 Report and Order*).

¹²⁴⁹ See *id.* at 1087-88, para. 172.

¹²⁵⁰ See *id.*

¹²⁵¹ See *id.* at 1088, para. 173.

¹²⁵² See *Alvarez Letter 1999*.

¹²⁵³ See *Lower 700 MHz Band Auction Closes*, Public Notice, 17 FCC Rcd 17272 (WTB 2002).

¹²⁵⁴ See *id.*

¹²⁵⁵ See *id.*

¹²⁵⁶ *Service Rules for the 698–746, 747–762 and 777–792 MHz Band; Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems; Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephones; Biennial Regulatory Review—Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services; Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission’s Rules; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band; Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010; Declaratory Ruling on Reporting Requirement under Commission’s Part 1 Anti-Collusion Rule*, Second Report and Order, 22 FCC Rcd 15289, 15359 n. 434 (2007) (*700 MHz Second Report and Order*).

¹²⁵⁷ See *Auction of 700 MHz Band Licenses Closes*, Public Notice, 23 FCC Rcd 4572 (WTB 2008).

million and do not exceed \$40 million for the preceding three years) won 49 licenses. Thirty three winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years) won 325 licenses.

38. *Upper 700 MHz Band Licenses.* In the *700 MHz Second Report and Order*, the Commission revised its rules regarding Upper 700 MHz licenses.¹²⁵⁸ On January 24, 2008, the Commission commenced Auction 73 in which several licenses in the Upper 700 MHz band were available for licensing: 12 Regional Economic Area Grouping licenses in the C Block, and one nationwide license in the D Block.¹²⁵⁹ The auction concluded on March 18, 2008, with 3 winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years) and winning five licenses.

39. *700 MHz Guard Band Licensees.* In 2000, in the 700 MHz Guard Band Order, the Commission adopted size standards for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.¹²⁶⁰ A small business in this service is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.¹²⁶¹ Additionally, a very small business is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.¹²⁶² SBA approval of these definitions is not required.¹²⁶³ An auction of 52 Major Economic Area licenses commenced on September 6, 2000, and closed on September 21, 2000.¹²⁶⁴ Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced on February 13, 2001, and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.¹²⁶⁵

40. *Air-Ground Radiotelephone Service.* The Commission has previously used the SBA’s small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), i.e., an entity employing no more than 1,500 persons.¹²⁶⁶ There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and under that definition, we estimate that almost all of them qualify as small entities under the SBA definition. For purposes of assigning Air-Ground Radiotelephone Service licenses through competitive bidding, the Commission has defined “small business” as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding

¹²⁵⁸ *700 MHz Second Report and Order*, 22 FCC Rcd 15289.

¹²⁵⁹ *See Auction of 700 MHz Band Licenses Closes*, Public Notice, 23 FCC Rcd 4572 (WTB 2008).

¹²⁶⁰ *See Service Rules for the 746–764 MHz Bands, and Revisions to Part 27 of the Commission’s Rules*, Second Report and Order, 15 FCC Rcd 5299 (2000) (*746–764 MHz Band Second Report and Order*).

¹²⁶¹ *See id.* at 5343, para. 108.

¹²⁶² *See id.*

¹²⁶³ *See id.* at 5343, para. 108 n.246 (for the 746–764 MHz and 776–794 MHz bands, the Commission is exempt from 15 U.S.C. § 632, which requires Federal agencies to obtain SBA approval before adopting small business size standards).

¹²⁶⁴ *See 700 MHz Guard Bands Auction Closes: Winning Bidders Announced*, Public Notice, 15 FCC Rcd 18026 (WTB 2000).

¹²⁶⁵ *See 700 MHz Guard Bands Auction Closes: Winning Bidders Announced*, Public Notice, 16 FCC Rcd 4590 (WTB 2001).

¹²⁶⁶ 13 CFR § 121.201, NAICS codes 517210.

three years not exceeding \$40 million.¹²⁶⁷ A “very small business” is defined as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding \$15 million.¹²⁶⁸ These definitions were approved by the SBA.¹²⁶⁹ In May 2006, the Commission completed an auction of nationwide commercial Air-Ground Radiotelephone Service licenses in the 800 MHz band (Auction No. 65). On June 2, 2006, the auction closed with two winning bidders winning two Air-Ground Radiotelephone Services licenses. Neither of the winning bidders claimed small business status.

41. *AWS Services (1710–1755 MHz and 2110–2155 MHz bands (AWS-1); 1915–1920 MHz, 1995–2000 MHz, 2020–2025 MHz and 2175–2180 MHz bands (AWS-2); 2155–2175 MHz band (AWS-3)).* For the AWS-1 bands,¹²⁷⁰ the Commission has defined a “small business” as an entity with average annual gross revenues for the preceding three years not exceeding \$40 million, and a “very small business” as an entity with average annual gross revenues for the preceding three years not exceeding \$15 million. For AWS-2 and AWS-3, although we do not know for certain which entities are likely to apply for these frequencies, we note that the AWS-1 bands are comparable to those used for cellular service and personal communications service. The Commission has not yet adopted size standards for the AWS-2 or AWS-3 bands but proposes to treat both AWS-2 and AWS-3 similarly to broadband PCS service and AWS-1 service due to the comparable capital requirements and other factors, such as issues involved in relocating incumbents and developing markets, technologies, and services.¹²⁷¹

42. *3650–3700 MHz band.* In March 2005, the Commission released a *Report and Order and Memorandum Opinion and Order* that provides for nationwide, non-exclusive licensing of terrestrial operations, utilizing contention-based technologies, in the 3650 MHz band (i.e., 3650–3700 MHz). As of April 2010, more than 1270 licenses have been granted and more than 7433 sites have been registered. The Commission has not developed a definition of small entities applicable to 3650–3700 MHz band nationwide, non-exclusive licensees. However, we estimate that the majority of these licensees are Internet Access Service Providers (ISPs) and that most of those licensees are small businesses.

43. *Fixed Microwave Services.* Microwave services include common carrier,¹²⁷² private-operational fixed,¹²⁷³ and broadcast auxiliary radio services.¹²⁷⁴ They also include the Local Multipoint

¹²⁶⁷ *Amendment of Part 22 of the Commission’s Rules to Benefit the Consumers of Air-Ground Telecommunications Services, Biennial Regulatory Review—Amendment of Parts 1, 22, and 90 of the Commission’s Rules, Amendment of Parts 1 and 22 of the Commission’s Rules to Adopt Competitive Bidding Rules for Commercial and General Aviation Air-Ground Radiotelephone Service, Order on Reconsideration and Report and Order, 20 FCC Rcd 19663, paras. 28-42 (2005).*

¹²⁶⁸ *Id.*

¹²⁶⁹ See Letter from Hector V. Barreto, Administrator, SBA, to Gary D. Michaels, Deputy Chief, Auctions and Spectrum Access Division, Wireless Telecommunications Bureau, Federal Communications Commission (filed Sept. 19, 2005).

¹²⁷⁰ The service is defined in section 90.1301 *et seq.* of the Commission’s Rules, 47 CFR § 90.1301 *et seq.*

¹²⁷¹ See *Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, Report and Order, 18 FCC Rcd 25162, Appx. B (2003), modified by *Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, Order on Reconsideration, 20 FCC Rcd 14058, Appx. C (2005); *Service Rules for Advanced Wireless Services in the 1915–1920 MHz, 1995–2000 MHz, 2020–2025 MHz and 2175–2180 MHz Bands; Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, Notice of Proposed Rulemaking, 19 FCC Rcd 19263, Appx. B (2005); *Service Rules for Advanced Wireless Services in the 2155–2175 MHz Band*, Notice of Proposed Rulemaking, 22 FCC Rcd 17035, Appx. (2007).

¹²⁷² See 47 CFR Part 101, Subparts C and I.

¹²⁷³ See 47 CFR Part 101, Subparts C and H.

¹²⁷⁴ Auxiliary Microwave Service is governed by Part 74 of Title 47 of the Commission’s Rules. See 47 CFR Part 74. Available to licensees of broadcast stations and to broadcast and cable network entities, broadcast auxiliary

(continued....)

Distribution Service (LMDS),¹²⁷⁵ the Digital Electronic Message Service (DEMS),¹²⁷⁶ and the 24 GHz Service,¹²⁷⁷ where licensees can choose between common carrier and non-common carrier status.¹²⁷⁸ At present, there are approximately 36,708 common carrier fixed licensees and 59,291 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services. There are approximately 135 LMDS licensees, three DEMS licensees, and three 24 GHz licensees. The Commission has not yet defined a small business with respect to microwave services. For purposes of the IRFA, we will use the SBA's definition applicable to Wireless Telecommunications Carriers (except satellite)—i.e., an entity with no more than 1,500 persons.¹²⁷⁹ Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.¹²⁸⁰ The Commission does not have data specifying the number of these licensees that have more than 1,500 employees, and thus is unable at this time to estimate with greater precision the number of fixed microwave service licensees that would qualify as small business concerns under the SBA's small business size standard. Consequently, the Commission estimates that there are up to 36,708 common carrier fixed licensees and up to 59,291 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services that may be small and may be affected by the rules and policies adopted herein. We note, however, that the common carrier microwave fixed licensee category includes some large entities.

44. *Broadband Radio Service and Educational Broadband Service.* Broadband Radio Service systems, previously referred to as Multipoint Distribution Service (MDS) and Multichannel Multipoint Distribution Service (MMDS) systems, and “wireless cable,” transmit video programming to subscribers and provide two-way high speed data operations using the microwave frequencies of the Broadband Radio Service (BRS) and Educational Broadband Service (EBS) (previously referred to as the Instructional Television Fixed Service (ITFS)).¹²⁸¹ In connection with the 1996 BRS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of no more than \$40 million in the previous three calendar years.¹²⁸² The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (BTAs). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At this time, we estimate that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent BRS licensees that are considered small entities.¹²⁸³ After adding the number of small business auction licensees to the number of incumbent

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microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between two points such as a main studio and an auxiliary studio. The service also includes mobile TV pickups, which relay signals from a remote location back to the studio.

¹²⁷⁵ See 47 CFR Part 101, Subpart L.

¹²⁷⁶ See 47 CFR Part 101, Subpart G.

¹²⁷⁷ See *id.*

¹²⁷⁸ See 47 CFR §§ 101.533, 101.1017.

¹²⁷⁹ 13 CFR § 121.201, NAICS code 517210.

¹²⁸⁰ 13 CFR § 121.201, NAICS code 517210 (2007 NAICS). The now-superseded, pre-2007 CFR citations were 13 CFR § 121.201, NAICS codes 517211 and 517212 (referring to the 2002 NAICS).

¹²⁸¹ *Amendment of Parts 21 and 74 of the Commission's Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act—Competitive Bidding*, Report and Order, 10 FCC Rcd 9589, 9593, para. 7 (1995).

¹²⁸² 47 CFR § 21.961(b)(1).

¹²⁸³ 47 U.S.C. § 309(j). Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA's small business size standard of 1500 or fewer employees.

licensees not already counted, we find that there are currently approximately 440 BRS licensees that are defined as small businesses under either the SBA or the Commission's rules.

45. In 2009, the Commission conducted Auction 86, the sale of 78 licenses in the BRS areas.¹²⁸⁴ The Commission offered three levels of bidding credits: (i) a bidder with attributed average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years (small business) received a 15 percent discount on its winning bid; (ii) a bidder with attributed average annual gross revenues that exceed \$3 million and do not exceed \$15 million for the preceding three years (very small business) received a 25 percent discount on its winning bid; and (iii) a bidder with attributed average annual gross revenues that do not exceed \$3 million for the preceding three years (entrepreneur) received a 35 percent discount on its winning bid.¹²⁸⁵ Auction 86 concluded in 2009 with the sale of 61 licenses.¹²⁸⁶ Of the ten winning bidders, two bidders that claimed small business status won 4 licenses; one bidder that claimed very small business status won three licenses; and two bidders that claimed entrepreneur status won six licenses.

46. In addition, the SBA's Cable Television Distribution Services small business size standard is applicable to EBS. There are presently 2,436 EBS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in this analysis as small entities.¹²⁸⁷ Thus, we estimate that at least 2,336 licensees are small businesses. Since 2007, Cable Television Distribution Services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: "This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies."¹²⁸⁸ The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. To gauge small business prevalence for these cable services we must, however, use the most current census data that are based on the previous category of Cable and Other Program Distribution and its associated size standard; that size standard was: all such firms having \$13.5 million or less in annual receipts.¹²⁸⁹ According to Census Bureau data for 2007, there were a total of 996 firms in this category that operated for the entire year.¹²⁹⁰ Of this total, 948 firms had annual receipts of under \$10 million, and 48 firms had receipts of \$10 million or more but less than \$25 million.¹²⁹¹ Thus, the majority of these firms can be considered small.

¹²⁸⁴ *Auction of Broadband Radio Service (BRS) Licenses, Scheduled for October 27, 2009, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 86*, Public Notice, 24 FCC Rcd 8277 (2009).

¹²⁸⁵ *Id.* at 8296, para. 73.

¹²⁸⁶ *Auction of Broadband Radio Service Licenses Closes, Winning Bidders Announced for Auction 86, Down Payments Due November 23, 2009, Final Payments Due December 8, 2009, Ten-Day Petition to Deny Period*, Public Notice, 24 FCC Rcd 13572 (2009).

¹²⁸⁷ The term "small entity" within SBREFA applies to small organizations (nonprofits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6). We do not collect annual revenue data on EBS licensees.

¹²⁸⁸ U.S. Census Bureau, 2012 NAICS Definitions, "517110 Wired Telecommunications Carriers," (partial definition), <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517110&search=2012>.

¹²⁸⁹ 13 CFR § 121.201, NAICS code 517110.

¹²⁹⁰ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Receipts by Enterprise Employment Size for the United States: 2007, NAICS code 517510 (rel. Nov. 19, 2010).

¹²⁹¹ *Id.*

5. Satellite Service Providers

47. *Satellite Telecommunications Providers.* Two economic census categories address the satellite industry. Both categories have a small business size standard of \$32.5 million or less in average annual receipts, under SBA rules.¹²⁹²

48. *Satellite Telecommunications.* This category comprises firms “primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications.”¹²⁹³ The category has a small business size standard of \$32.5 million or less in average annual receipts, under SBA rules.¹²⁹⁴ For this category, Census Bureau data for 2012 show that there were a total of 333 firms that operated for the entire year.¹²⁹⁵ Of this total, 299 firms had annual receipts of less than \$25 million.¹²⁹⁶ Consequently, we estimate that the majority of satellite telecommunications providers are small entities.

49. *All Other Telecommunications.* “All Other Telecommunications” is defined as follows: “This U.S. industry is comprised of establishments that are primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or voice over Internet protocol (VoIP) services via client supplied telecommunications connections are also included in this industry.”¹²⁹⁷ The SBA has developed a small business size standard for “All Other Telecommunications,” which consists of all such firms with gross annual receipts of \$32.5 million or less.¹²⁹⁸ For this category, Census Bureau data for 2012 show that there were 1,442 firms that operated for the entire year. Of those firms, a total of 1,400 had annual receipts less than \$25 million.¹²⁹⁹ Consequently, we conclude that the majority of All Other Telecommunications firms can be considered small.

6. Cable Service Providers

50. Because section 706 requires us to monitor the deployment of broadband using any technology, we anticipate that some broadband service providers may not provide telephone service. Accordingly, we describe below other types of firms that may provide broadband services, including cable companies, MDS providers, and utilities, among others.

¹²⁹² 13 CFR § 121.201, NAICS Code 517410.

¹²⁹³ U.S. Census Bureau, 2012 NAICS Definitions, “517410 Satellite Telecommunications,” <http://www.census.gov/naics/2007/def/ND517410.HTM>.

¹²⁹⁴ 13 CFR § 121.201, NAICS code 517410.

¹²⁹⁵ U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ4, Information: Subject Series - Estab and Firm Size: Receipts Size of Firms for the United States: 2012, NAICS code 517410 http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ4&prodType=table.

¹²⁹⁶ *Id.*

¹²⁹⁷ <https://www.census.gov/econ/isp/sampler.php?naicscode=517919&naicslevel=6>.

¹²⁹⁸ 13 CFR § 121.201; NAICS Code 517919.

¹²⁹⁹ U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC0751SSSZ1, Information: Subject Series - Establishment and Firm Size: Receipts Size of Firms for the United States: 2012 NAICS Code 517919, http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ1&prodType=table.

51. *Cable and Other Subscription Programming.* This industry comprises establishments primarily engaged in operating studios and facilities for the broadcasting of programs on a subscription or fee basis. The broadcast programming is typically narrowcast in nature (.e.g. limited format, such as news, sports, education, or youth-oriented). These establishments produce programming in their own facilities or acquire programming from external sources. The programming material is usually delivered to a third party, such as cable systems or direct-to-home satellite systems, for transmission to viewers.¹³⁰⁰ The SBA has established a size standard for this industry stating that a business in this industry is small if it has 1,500 or fewer employees.¹³⁰¹ The 2012 Economic Census indicates that 367 firms were operational for that entire year. Of this total, 357 operated with less than 1,000 employees.¹³⁰² Accordingly we conclude that a substantial majority of firms in this industry are small under the applicable SBA size standard.

52. *Cable Companies and Systems (Rate Regulation).* The Commission has developed its own small business size standards for the purpose of cable rate regulation. Under the Commission's rules, a "small cable company" is one serving 400,000 or fewer subscribers nationwide.¹³⁰³ Industry data indicate that there are currently 4,600 active cable systems in the United States.¹³⁰⁴ Of this total, all but nine cable operators nationwide are small under the 400,000-subscriber size standard.¹³⁰⁵ In addition, under the Commission's rate regulation rules, a "small system" is a cable system serving 15,000 or fewer subscribers.¹³⁰⁶ Current Commission records show 4,600 cable systems nationwide.¹³⁰⁷ Of this total, 3,900 cable systems have fewer than 15,000 subscribers, and 700 systems have 15,000 or more subscribers, based on the same records.¹³⁰⁸ Thus, under this standard as well, we estimate that most cable systems are small entities.

53. *Cable System Operators (Telecom Act Standard).* The Communications Act of 1934, as amended, also contains a size standard for small cable system operators, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than one percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate

¹³⁰⁰ <https://www.census.gov/agi-bin/ssd/naics/naicsrch>.

¹³⁰¹ 13 CFR § 121.201, 2016 NAICS Code 515210.

¹³⁰²

http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ5&prodType=table.

¹³⁰³ 47 CFR § 76.901(e)

¹³⁰⁴ Federal Communications Commission, Assessment and Collection of Regulatory Fees for Fiscal Year 2014; Assessment and Collection of Regulatory Fees for Fiscal Year 2013; and Procedures for Assessment and Collection of Regulatory Fees, 80 Fed. Reg. 66815 (Oct. 30, 2015) (citing August 15, 2015 Report from the Media Bureau based on data contained in the Commission's Cable Operations and Licensing System (COALS)). See www.fcc.gov/coals.

¹³⁰⁵ See SNL KAGAN at <https://www.snl.com/interactiveX/MyInteractive.aspx?mode=4&CDID=A-821-38606&KLPT=8> (subscription required).

¹³⁰⁶ 47 CFR § 76.901(c).

¹³⁰⁷ ¹³⁰⁷ Federal Communications Commission, Assessment and Collection of Regulatory Fees for Fiscal Year 2014; Assessment and Collection of Regulatory Fees for Fiscal Year 2013; and Procedures for Assessment and Collection of Regulatory Fees, 80 Fed. Reg. 66815 (Oct. 30, 2015) (citing August 15, 2015 Report from the Media Bureau based on data contained in the Commission's Cable Operations and Licensing System (COALS)). See www.fcc.gov/coals.

¹³⁰⁸ *Id.*

exceed \$250,000,000 are approximately 52,403,705 cable video subscribers in the United States today.¹³⁰⁹ Accordingly, an operator serving fewer than 524,037 subscribers shall be deemed a small operator if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed \$250 million in the aggregate.¹³¹⁰ Based on available data, we find that all but nine incumbent cable operators are small entities under this size standard.¹³¹¹ We note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million.¹³¹² Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed \$250,000,000, we are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act.

7. All Other Telecommunications

54. “All Other Telecommunications” is defined as follows: “This U.S. industry is comprised of establishments that are primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or voice over Internet protocol (VoIP) services via client supplied telecommunications connections are also included in this industry.”¹³¹³ The SBA has developed a small business size standard for “All Other Telecommunications,” which consists of all such firms with gross annual receipts of \$32.5 million or less.¹³¹⁴ For this category, Census Bureau data for 2012 show that there were 1,442 firms that operated for the entire year. Of those firms, a total of 1,400 had annual receipts less than \$25 million.¹³¹⁵ Consequently, we conclude that the majority of All Other Telecommunications firms can be considered small.

E. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

55. Today’s action requires broadband Internet access service providers to “publicly disclose accurate information regarding the network management practices, performance, and commercial terms of its broadband Internet access services sufficient for consumers to make informed choices regarding use of such services and for content, application, service, and device providers to develop, market, and maintain Internet offerings.”

¹³⁰⁹ *Assessment and Collection of Regulatory Fees for Fiscal Year 2016, Notice of Proposed Rulemaking*, 31 FCC Rcd 5757, Appendix E para. 23 (2016) (citing Office of Management and Budget (OMB) Memorandum M-10-06, Open Government Directive, Dec. 8, 2009).

¹³¹⁰ 47 CFR § 76.901(f).

¹³¹¹ *Assessment & Collection of Regulatory Fees for Fiscal Year 2016, Notice of Proposed Rulemaking*, 31 FCC Rcd 5757, Appendix E para. 23 (2016).

¹³¹² The Commission does receive such information on a case-by-case basis if a cable operator appeals a local franchise authority's finding that the operator does not qualify as a small cable operator pursuant to section 76.901(f) of the Commission's rules. See 47 CFR § 76.901(f).

¹³¹³ <https://www.census.gov/econ/isp/sampler.php?naicscode=517919&naicslevel=6>.

¹³¹⁴ 13 CFR § 121.201; NAICS Code 517919.

¹³¹⁵ U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC0751SSSZ1, Information: Subject Series - Establishment and Firm Size: Receipts Size of Firms for the United States: 2012 NAICS Code 517919, http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ1&prodTtype=table.

56. Broadband Internet access service providers must disclose performance characteristics, network practices, and commercial terms. The required disclosures must either be posted on a publicly available, easily accessible website, or they must be submitted to the Commission, which will post the disclosures on a publicly available, easily accessible website.

57. Because the disclosure requirements we adopt today eliminate the additional reporting obligations found in the *Title II Order*, we decline to provide an exemption for smaller providers at this time. While a commenter emphasized that small broadband Internet access service providers had an even more pressing need to be classified as information service providers,¹³¹⁶ today's action applies equally to all providers of broadband Internet access service, and therefore does even more than the initial comment requested.

F. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

58. Today's action restores broadband Internet access service's original classification as an information service. This will significantly decrease the burdens on small entities. Additionally, the removal of the additional reporting obligations, the direct notification requirement, and the broadband provider safe harbor form will minimize the burdens providers face.

59. The transparency rule we adopt today strikes an appropriate balance by requiring broadband Internet access service providers to disclose information that will allow consumers to make informed choices and that will enable the Commission to enable it to meet its statutory obligation to observe the communications marketplace to monitor the introduction of new services and technologies and to identify and eliminate potential marketplace barriers for the provision of information service, while simultaneously freeing providers from onerous burdens that produce little public benefit. While retaining the transparency rule, with modifications, from the *Open Internet Order*, we eliminate the additional reporting obligations, the direct notification requirements, and the broadband label "safe harbor," all of which will reduce the burdens of broadband Internet access service providers. The additional reporting obligations, the direct notification requirement, and the "safe harbor" all required providers to expend significant resources without a corresponding gain to consumers, entrepreneurs, or other small businesses.

60. We also eliminate several rules adopted in the *Title II Order*, including the general conduct standard, the ban on paid prioritization, and the no-blocking/no-throttling rule. We eliminate these rules for three reasons. First, the transparency rule we adopt, in combination with the state of broadband Internet access service competition and the antitrust and consumer protection laws, obviate the need for conduct rules by achieving comparable benefits at lower cost. Second, the record does not identify any legal authority to adopt conduct rules for all ISPs, and we decline to distort the market with a patchwork of non-uniform, limited-purpose rules. Third, scrutinizing closely each prior conduct rule, we find that the costs of each rule outweigh its benefits.

61. We also eliminate the position of Open Internet Ombudsperson, the formal complaint process, and the issuance of advisory opinions, because the work of the Open Internet Ombudsperson is more appropriately handled by Commission staff, and because the issuance of advisory opinions and the formal complaint process have not been shown to provide any benefit to broadband Internet access service providers or consumers.

62. Finally, we return mobile broadband Internet access service to its original classification as a private mobile radio service and restore the definition of interconnected service that existed prior to the *Title II Order*. This will remove regulatory burdens from providers of mobile broadband Internet access service, including small providers.

¹³¹⁶ WISPA Comments at 27.

G. Report to Congress

63. The Commission will send a copy of this Declaratory Ruling, Report and Order, and Order, including this FRFA, in a report to be sent to Congress pursuant to the SBREFA.¹³¹⁷ In addition, the Commission will send a copy of this Declaratory Ruling, Report and Order, and Order, including the FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the Declaratory Ruling, Report and Order, and Order, and the FRFA (or summaries thereof) will also be published in the Federal Register.¹³¹⁸

¹³¹⁷ See 5 U.S.C. § 801(a)(1)(A).

¹³¹⁸ See 5 U.S.C. § 604(b).