

IN THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

18-70506

Case No. 18-_____

COUNTY OF SANTA CLARA and
SANTA CLARA COUNTY
CENTRAL FIRE PROTECTION
DISTRICT,

Petitioners,

v.

FEDERAL COMMUNICATIONS
COMMISSION and UNITED STATES
OF AMERICA,

Respondents.

RECEIVED
OFFICE OF THE CLERK
U.S. COURT OF APPEALS
2018 FEB 22 AM 9:01
FILED
DOCKETED
DATE INITIAL
2/22/18 JWP

PETITION FOR REVIEW

Pursuant to 5 U.S.C. § 706, 47 U.S.C. § 402(a), 28 U.S.C. §§ 2342(1) and 2344, and Federal Rule of Appellate Procedure 15(a), the County of Santa Clara and the Santa Clara County Central Fire Protection District (collectively, the “County”) hereby petition this Court for review of the order of the Federal Communications Commission (“Commission”) captioned *In re Restoring Internet Freedom*, Declaratory Ruling, Report and Order, and Order, WC Docket No. 17-108, FCC 17-166, 83 Fed. Reg. 7852 (Feb. 22, 2018) (“*Order*”). A copy of the full text of the *Order* is attached as Exhibit A.

Venue is proper in this Court under 28 U.S.C. § 2343. The County resides and has its principal office in this judicial circuit. The County is a political subdivision of the State of California, serving the geographic region of Santa Clara County, California, generally known as Silicon Valley. Santa Clara County embraces fifteen cities, from Palo Alto in the north to Gilroy in the south, including San José, and is a major employment center for the region, providing more than a quarter of all jobs in the Bay Area. The County provides safety-net services and governance to 1.9 million residents, and relies heavily on the internet to do so.

In 2015, the Commission adopted an order classifying broadband internet services as a telecommunications service, subject to common carrier regulation under Title II of the Communications Act of 1934, and adopting certain rules regarding preservation of an open internet. *See In re Protecting and Promoting the Open Internet*, Report and Order on Remand, Declaratory Ruling, and Order, GN Docket No. 14-28, FCC 15-24 (Feb. 26, 2015) (“2015 Order”). However, in 2017, shortly after the Court of Appeals for the District of Columbia Circuit upheld the Commission’s 2015 Order, *see U.S. Telecom Ass’n v. Fed. Commc’ns Comm’n*, 825 F.3d 674 (D.C. Cir. 2016), the Commission reversed course, initiating a rulemaking proceeding and adopting the *Order* at issue here.

The County seeks review of the *Order* on the grounds that it is arbitrary, capricious, and an abuse of discretion within the meaning of the Administrative Procedure Act, 5 U.S.C. § 701 *et seq.*; violates federal law, including, but not limited to, the U.S. Constitution, the Communications Act of 1934, as amended, and Commission regulations promulgated thereunder; is in excess of the Commission's statutory jurisdiction, authority, or limitations; conflicts with the notice-and-comment rulemaking requirements of 5 U.S.C. § 553; and is otherwise not in accordance with law.


The County respectfully requests that this Court hold unlawful, vacate, enjoin, and set aside the *Order*, and that it provide such additional relief as may be appropriate.

Dated: February 22, 2018

Respectfully submitted,

JAMES R. WILLIAMS
County Counsel

By: _____



Danielle L. Goldstein
Greta S. Hansen
Lynnette K. Miner
Office of the County Counsel,
County of Santa Clara
70 W. Hedding St., East Wing, 9th Floor
San Jose, California 95110

Phillip R. Malone
Jeffrey T. Pearlman
Juelsgaard Intellectual Property and
Innovation Clinic
Mills Legal Clinic at Stanford Law
School
559 Nathan Abbott Way
Stanford, California 94305-8610
(650) 725-6369
jipic@law.stanford.edu

*Counsel for Petitioners County of Santa
Clara and Santa Clara County Central
Fire Protection District*

CERTIFICATE OF SERVICE

I hereby certify that on February 22, 2018, I caused one copy of the foregoing Petition for Review to be served on the following counsel by the manner indicated:

First Class Mail

Thomas M. Johnson, Jr.
General Counsel
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

First Class Mail

Jefferson Beauregard Sessions III
Attorney General of the United States
U.S. Department of Justice
950 Pennsylvania Avenue, NW
Washington, DC 20530



Danielle L. Goldstein

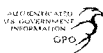
18-70506

SS

RECEIVED
OFFICE OF THE CLERK
U.S. COURT OF APPEALS

2018 FEB 22 AM 9:07

FILED 2/22/18 JMP
DOCKETED 2/22/18 JMP
DATE INITIAL



7852

Federal Register / Vol. 83, No. 36 / Thursday, February 22, 2018 / Rules and Regulations

**FEDERAL COMMUNICATIONS
COMMISSION**
47 CFR Parts 1, 8, and 20

[WC Docket No. 17–108; FCC 17–166]

Restoring Internet Freedom
AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: In this document, the Federal Communications Commission (Commission) returns to the light-touch regulatory scheme that enabled the internet to develop and thrive for nearly two decades. The Commission restores the classification of broadband internet access service as a lightly-regulated information service and reinstates the private mobile service classification of mobile broadband internet access service. The *Restoring Internet Freedom Order* requires internet service providers (ISPs) to disclose information about their network management practices, performance characteristics, and commercial terms of service. Finding that transparency is sufficient to protect the openness of the internet and that conduct rules have greater costs than benefits, the Order eliminates the conduct rules imposed by the *Title II Order*.

DATES: *Effective date:* April 23, 2018, except for amendatory instructions 2, 3, 5, 6, and 8, which are delayed as follows. The FCC will publish a document in the **Federal Register** announcing the effective date(s) of the delayed amendatory instructions, which are contingent on OMB approval of the modified information collection requirements in 47 CFR 8.1 (amendatory instruction 5). The Declaratory Ruling, Report and Order, and Order will also be effective upon the date announced in that same document.

FOR FURTHER INFORMATION CONTACT: Ramesh Nagarajan, Competition Policy Division, Wireline Competition Bureau, at (202) 418–2582, ramesh.nagarajan@fcc.gov. For additional information concerning the Paperwork Reduction Act information collection requirements contained in this document, send an email to PRA@fcc.gov or contact Nicole Ongele at (202) 418–2991.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Declaratory Ruling, Report and Order, and Order ("*Restoring Internet Freedom Order*") in WC Docket No. 17–108, adopted on December 14, 2017 and released on January 4, 2018. The full text of this document is available at https://apps.fcc.gov/edocs_public/

[attachmatch/FCC-17-166A1.pdf](#). The full text is also available for public inspection during regular business hours in the FCC Reference Information Center, Portals II, 445 12th Street SW, Room CY–A257, Washington, DC 20554. To request materials in accessible formats for people with disabilities (e.g., braille, large print, electronic files, audio format, etc.) or to request reasonable accommodations (e.g., accessible format documents, sign language interpreters, CART, etc.), send an email to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at (202) 418–0530 (voice) or (202) 418–0432 (TTY). The language following the **DATES** caption of this preamble is provided to ensure compliance with 1 CFR 18.17.

Synopsis

In this Declaratory Ruling, Report and Order, and Order, the Commission restores the light-touch regulatory scheme that fostered the internet's growth, openness, and freedom. 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.

I. Ending Public-Utility Regulation of the Internet

1. We reinstate the information service classification of broadband internet access service, consistent with the Supreme Court's holding in *Brand X*. 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 service 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 will 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

2. We continue to define "broadband internet access service" as a mass-market retail service by wire or radio that provides the capability to transmit data to and receive data from all or substantially all internet endpoints, including any capabilities that are incidental to and enable the operation of the communications service, but excluding dial-up internet access service. 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.

3. 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, 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. “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. 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. 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. The term also encompasses mobile satellite broadband services. 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.

4. 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. 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. Such services generally are not used to reach large parts of the internet; are not a 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. 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.”

5. 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. 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. We do not disturb that finding here. Consistent with past Commissions, we note that the transparency rule we adopt today applies only so far as the limits of an ISP’s control over the transmission of data to or from its broadband customers.

6. 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 an ISP 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. Although not bound by the transparency rule we adopt today, we encourage premise operators to disclose relevant restrictions on broadband service they make available to their patrons. 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

7. 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.” 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.” 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.” 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 *Brand X*. Our action here simply returns to that prior approach.

8. 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.’” 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.

9. 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.

10. 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, 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’s understanding and intent. 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.” Consistent with this approach as a traditional tool of statutory interpretation, we reject arguments that suggest that we should disregard this precedent largely out-of-hand. More generally, of course, this precedent—*Brand X* in particular—demonstrates that the Act does not compel a telecommunications service classification.

a. Broadband Internet Access Service Information Processing Capabilities

11. 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.” 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”—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; “acquiring” and “retrieving” information from sources such as websites and online streaming and audio applications, gaming applications, and file sharing applications; “storing” information in the cloud and remote servers, and via file sharing applications; “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; and “utilizing” information by interacting with stored data. 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, we find that broadband internet access is best interpreted as providing customers with the “capability” for such interactions with third party providers.

12. 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. We do not believe that Congress, in focusing on the “offering of a capability,” intended the classification

question to turn on an analysis of which capabilities the end user selects. 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. Although there is no dispute that many edge providers likewise perform functions to facilitate information processing capabilities, they *all* depend on the combination of information-processing and transmission that ISPs make available through broadband internet access service. The fundamental purpose of 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.”

13. 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.” 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.’” 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. 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 service “capability.” 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. The *Title 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.

14. 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. In particular, we conclude that DNS and caching functionalities, as well as certain other information processing capabilities offered by ISPs, are integrated information processing capabilities offered as part of broadband internet access service to consumers today. 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 inextricably intertwined with the underlying service. 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, and various widgets, toolbars, and applications. 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.

15. DNS. We find that DNS is an indispensable functionality of broadband internet access service. 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. 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. DNS is used to facilitate the information retrieval capabilities that are inherent in internet access. 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." And "[b]ecause 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." Without DNS, a consumer would not be able to access a website by typing its advertised name (e.g., *fcc.gov* or *cnn.com*). 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.'" While ISPs are not the sole providers of DNS services, the vast majority of ordinary consumers rely upon the DNS functionality provided by their ISP, and the absence of ISP-provided DNS would fundamentally change the online experience for the consumer. We also 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.

16. The treatment of similar functions in MFJ precedent bolsters our conclusion. 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. 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. 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. We recognize that gateway functionalities and broadband internet access service are not precisely coextensive in scope. 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. 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 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. 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*.

17. We thus find that the *Title II Order* erred in finding that DNS functionalities fell within the telecommunications systems management exception to the definition of "information service." That exception from the statutory information service definition was drawn from the language of the MFJ, and was understood as "directed at internal operations, not at services for

customers or end users.” 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.” Under the Communications Act, the definition of “information services” includes an identically worded “telecommunications management” exception. Commission precedent and legislative history likewise recognize that the definition was drawn from the MFJ. We interpret the concepts of “management, control, or operation” 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.” 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.” DNS does not merely “manage” a telecommunications service, as some commenters assert, but rather is a function that is useful and essential to providing internet access for the ordinary consumer. We are persuaded that “[w]ere DNS simply a management function, this would not be the case.” Comparing functions that would fall within the exception illustrates the distinction. For example, in contrast to DNS’s interaction with users and their applications, “non-user, management-only protocols might include things such as Simple Network Management Protocol (SNMP), Network Control Protocol (NETCONF), or DOCSIS bootfiles for controlling the configuration of cable modems.” These protocols support services that manage the network independent of the transmission of information initiated by a user. 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.

18. 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. The same shortcomings are present in the *Title II Order’s* analysis of caching, as well. 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.” These commonly came to be known as “adjunct” capabilities. 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. 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.

19. 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 the functionality otherwise accomplished. 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.” 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. 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. The same is true of the *Title II Order’s* treatment of caching. While conceding that DNS, as well as other functions like caching, “do provide a benefit to subscribers,” 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. This expansive view of the telecommunications management exception—and associated narrowing of the scope of information services—is a

transposition of the analytical approach embodied in the MFJ and *Computer Inquiries*; under the approach in the pre-1996 Act precedent, 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.). 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.

20. The *Title II Order* also put misplaced reliance on *Computer Inquiries* adjunct-to-basic precedent from the traditional telephone service context as a comparison when evaluating broadband internet access service functionalities. 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 1996 Act enunciates a policy for the internet that distinguishes broadband internet access from legacy services like traditional telephone service. The 1996 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.” 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. We find that our approach to that precedent, which results in an information service classification of broadband internet access service, better advances that deregulatory policy than the approach in the *Title II Order*, which led to the imposition of utility-style regulation under Title II.

21. 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.” 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. Thus, for example, the fact that the adjunct-to-basic classification of directory assistance arose 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.

22. *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. As the record reflects, “[c]aching does much more than simply enable the user to obtain more rapid retrieval of information through the network; caching depends on complex algorithms to determine what information to store where and in what format.” This requires “extensive information processing, storing, retrieving, and transforming for much of the most popular content on the internet,” and as such, caching involves storing and retrieving capabilities required by the “information service” definition. 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.’”

23. 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. 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). We disagree with assertions in the 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. Caching can also be realized in terms of content that

can be accumulated by the ISP through non-confidential (*i.e.*, non-encrypted) 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. 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. 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. Thus, because caching is useful to the consumer, 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.”

24. 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. 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.” 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.” 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. 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 information that are then collected and transmitted between nodes,” involving “constant storage, error checking, and retransmission, as required for accurate transmission.” 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.” 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.

25. 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*. 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.” 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.” 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.” 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. We are unpersuaded by claims that this MFJ precedent only is analogous to CDNs and not "transparent caching" based on asserted differences in how it is determined what content will be stored in each scenario. Although the factual scenario discussed in the MFJ anticipated end-users or information service providers electing what information to store, and that fact may have partially informed the court's decision whether to ultimately allow BOCs to provide that capability notwithstanding its classification as an information service, we do not read the underlying classification as turning on that issue. Further, in addition to the distinctions between caching and store-and-forward technology acknowledged even in this filing, *Peha* Dec. 7, 2017 *Ex Parte* Letter at 4, we find additional shortcomings in how the *Title II Order* relied on adjunct-to-basic precedent.

b. ISPs' Service Offerings Inextricably Intertwine Information Processing Capabilities With Transmission

26. 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.

27. 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." ISPs generally market and provide information processing capabilities and transmission capability together as a single service. 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. 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." 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. NHMC's argument, based on what it asserts to be a representative sample of consumer complaints filed with the Commission, is not persuasive. NHMC's methodology relied on Natural Language Processing (NLP) to determine words that co-occur in such complaints, and then used "iterative clustering algorithms" to "ma[p] connections among them." Neither NHMC's methodology nor the representative extracts of the complaints NHMC submitted demonstrate that individual complaints about particular aspects of service reflect how a customer would perceive service offerings as a whole. Indeed, the sample of complaints attached by NHMC features a broad set of issues, ranging widely from questions about speed to "losing my internet connection," "charg[ing] extra for your services," "interrupt[ing] the service," "bully[ing] me into share plans," "Google arbitrarily engag[ing] in monopolistic practices," "charg[ing] me modem rental fee," or "basically no technical support." We further note that to the extent that perceived speed is a common complaint, that does not mean consumers view broadband internet access service as a pure transmission service. A consumer's perceived speed for many activities (such as web browsing) depends on information-processing elements of the service like DNS and caching; indeed, caching's primary consumer benefit is allowing a more rapid retrieval of information from a local cache (increasing the perceived speed of a consumer's connection). Moreover, the Commission has never relied on such complaints to identify what a service is. And for good reason: We expect consumer complaints about problems with a service—not every aspect of it. Indeed, applying such a methodology would lead to absurd results: Should we redefine the public switched network based on the millions of robocall complaints we get each year or the rural-call-completion problems that we know are too prevalent? Of course not.

28. 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." 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. In fact, ISPs have been highlighting transmission speed in their marketing materials since long before the *Title II Order*. 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. 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. 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.

29. 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. 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. Indeed, speed and reliability are not exclusive to telecommunications services; rather, the record reflects that speed and reliability are crucial attributes of an information service. As such, we reject assertions that speed and reliability are only characteristics of telecommunications services and further note that ISPs market these aspects because they can be differentiated, unlike DNS or caching. 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. 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. However, dial-up internet access has substantially diminished in marketplace significance in the subsequent years. In addition, the legal compulsion for facilities-based carriers to offer broadband transmission on a common carrier basis was eliminated in 2005. 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 was 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. 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.

30. Separate and distinct from our finding that an ISP “offers” an information service from 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, and it is the combined information processing capabilities and transmission functions that an ISP offers with 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, 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. As such, we reject commenters' assertions that the primary function of ISPs is to simply transfer packets and not process information.

31. 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. 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.” 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. 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.

32. Our findings today are consistent with classification precedent prior to the *Title II Order*, which consistently found that ISPs offer a single, integrated service. 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. 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. 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. Nor did such a common carrier transmission service itself enable access to the internet, even if purchased by end-users. 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. 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. 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.” 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.’” 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. 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,”

since a private party's subjective view is not authoritative. 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." 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. 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. 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. 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. Contrary to some arguments, the Bureau had no need to—and did not—address the classification of other service scenarios, 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. The core, essential elements of these prior analyses of the 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, or occur more frequently today. Even at the time of the *Cable Modem Order* the Commission recognized 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.

33. 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. In providing broadband internet access service, an ISP *makes use of* telecommunications—*i.e.*, it provides information-processing capabilities "via

telecommunications"—but does not separately *offer* telecommunications on a stand-alone basis to the public. By definition, *all* information services accomplish their functions "via telecommunications," 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. 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. 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. The same would be equally true of many information services, however, given that the information service capabilities are, by definition, available "via telecommunications." 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. For example, ISPs typically transmit traffic between aggregation points on their network and the ISPs' connections with other networks. 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. 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." This claim appears premised on 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." 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. Such inclusion of a transmission component does not render broadband internet access services telecommunications services; if it did, the entire category of information services would be narrowed drastically. 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.

34. The approach we adopt today best implements the Commission's longstanding view that Congress intended the definitions of "telecommunications service" and "information service" to be mutually exclusive ways to classify a given service. 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." 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. This conclusion is true even if the information service could be said to involve the provision of telecommunications as a component of the service. 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 scope of “telecommunications services.”

35. 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. 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. 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, on which the *Title II Order* purports to rely. 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.” 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, were part of the classified telecommunications service. 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 significant support for our reading of the statute and the classification decision we make today. That the Commission previously identified policy concerns about internet traffic exchange says nothing about classification, and thus is not to the contrary. Nor did the *Advanced Services* proceedings identify interconnection obligations on providers of xDSL transmission as services necessary to ensure the provision of internet access. 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). 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.

36. 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 email, 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. Our interpretation thus stops far short of the view that “every transmission of information becomes an information service.” Thus, an offering like broadband internet access service that “always and necessarily” includes integrated transmission and information service capabilities would be an information service. The distinction between services that “always and necessarily” include 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 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. 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. In addition, the discussion of xDSL advanced services in the *Advanced Services Order* cited by commenters addressed the transmission service generally. 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. The Commission’s historical interpretation thus gives full meaning to both “information service” and “telecommunications service” categories in the Act.

37. 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.” 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.” This finding is consistent with past distinctions. Under pre-1996 Act MFJ 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.” 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.

38. 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). While the extent of data transmission provided by the ISPs that were found to be 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. 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. 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. 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*. Nor do commenters identify material technical differences when facilities ownership is involved that would mandate a different classification analysis. While the *Stevens Report* recognized that under *Computer Inquiries* precedent “offerings by non-facilities-based providers combining communications and computing components should always be deemed enhanced,” 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. 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 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. We reject similar criticisms of other precedent for the same reason.

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

39. We also find that other provisions of the Act support our conclusion that broadband internet access service is best classified as an information service. 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. 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.” This statement confirms 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 internet access service to common carrier regulation under Title II.

40. 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.” Thus, on its face, the plain language of this provision appears to reflect Congress' judgment that internet access service is an information service.

41. 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.” We think it a more reasonable interpretation that the phrase “service . . . that provides access to the internet” modifies the noun phrase “information service.” 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.” On the contrary, we agree with AT&T that “the formula ‘any X, including specifically a Y,’ does logically imply that all Ys are Xs.”

42. 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. 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.” 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 the deregulatory approach to information services embodied in Titles I and II, as well as the deregulatory policy of Section 230, were all adopted as part of the 1996 Act. 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.” 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.” And while the *USTelecom* 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.” 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.” 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. 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.” We likewise reject arguments premised on the theory that we are treating definitions in Section 230 and 231 as dispositive, rather than relying on them to inform our understanding of Congress’ intent as revealed by the text and structure of the Act more broadly.

43. Section 231, inserted into the Communications Act a year after the 1996 Act’s passage, 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.” Further, the carve-outs in Section 231(b)(1)–(2) differentiate the

provision of telecommunications services and the provision of internet access service. 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. Our interpretation of “telecommunications service” and “information service” as mutually exclusive ways to classify a given service thus demonstrates the relevance of Section 231 notwithstanding that it does not expressly define broadband internet access service as an information service. 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. Nothing in the text of Section 231 reveals that the use of “internet access service” there is limited to dial-up internet access. To the contrary, it would seem anomalous for Congress only to exempt entities providing dial-up internet access and not other forms of internet access from the prohibitions of Section 231(a). We thus are unpersuaded by arguments advocating a narrower interpretation of “internet access service” in Section 231.

44. 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.” 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.” 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 Title II regulation to internet services, which historically have been excluded from regulation.” 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. An information service classification will “reduce regulation” and preserve a free market “unfettered by Federal or State regulation.”

45. 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, Section 251 addresses the obligations of local exchange carriers and incumbent local exchange carriers, and Section 271 addresses limitations on Bell Operating Companies’ provision of interLATA services. For example, to obtain authority to offer in-region interLATA services, the BOCs have to offer a number of functions of particular relevance to the provision of telephone service. 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. 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.

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

46. 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.

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

“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).” In 1994, the Commission adopted regulations implementing this section, codifying the definition of “commercial mobile service” under the term “commercial mobile radio service” (CMRS). 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.” It defined “interconnected service” as “a service that gives subscribers the capability to communicate . . . [with] all other users on the public switched network.”

48. 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.” 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.” Overcoming this presumption requires an analysis of a variety of factors to determine whether the mobile service in question is the functional equivalent of commercial 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.” 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.” We note that, in another Order adopted today, we are recodifying these factors under Section 20.3 of the Commission’s rules, but not modifying their substance.

49. The Act treats providers of commercial mobile service as common carriers, and the legislative history of the 1996 Act suggests that Congress

intended the definition of “telecommunications service” to include commercial mobile service. In contrast, the Act prohibits the Commission from treating providers of private mobile service as common carriers.

50. 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.” 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.”

51. 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. It broadened the definition of the term “public switched network” to include services that use “public IP addresses.” 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. 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.

52. 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.” 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.

53. 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.”

54. In the *Internet Freedom Notice of Proposed Rulemaking (NPRM)* (82 FR 25568), 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.’” The Commission further proposed to return to the analysis of the *Wireless Broadband Internet Access Order* and find that mobile broadband internet access service was a private mobile service. Finally, it proposed to reconsider the *Title II Order*’s departure from the functional equivalence test codified in our rules.

55. *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.

56. 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. 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. In 1981, for example, the Commission noted that “the public switched network interconnects all telephones in the country.” 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.” Courts also used the term “public switched network” when referring to the traditional telephone network. 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.” 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. 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 network,” suggesting that the conferees did not view the two terms as a significant difference.

57. 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.” 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. 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. 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. 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 offered. Even if we were to consider such applications, however, we find that the public switched telephone network and the internet 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.” 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.

58. 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.” 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 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. 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.” The *Title II Order* rejected this reading on the ground that the Commission has previously recognized that interconnected services may be limited in certain ways. While an interconnected service is required to provide its users with the 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 any language further clarifying 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.”

59. 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. 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.’” We disagree with commenters arguing that, by not including IP addresses in the definition of the public switched network, the Commission would be failing to recognize the evolution of mobile network technologies that have blurred the lines between circuit switched and packet switched networks. The Commission’s original decision properly reflects that the public switched network should not be defined in a static way and should reflect that the public switched network is continuously growing and changing, but also ensures that, as it grows and evolves, the public switched network remains a single integrated network incorporating the traditional local and interexchange telephone networks and enabling users to send or receive messages to or from all other users. 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.” 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. 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. 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.” 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.

60. 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 the

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

61. 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.” 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 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. 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.” 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.” 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.” 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, 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. Because the focus is solely on the relevant service provided, we also disagree that physical connections between networks, in and of themselves, establish that the relevant services are interconnected, and we further disagree that mobile broadband internet access service should be considered an interconnected service simply because a separate interconnected voice service may be provided using the same packet-switched network layer.

62. 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 them to send calls and texts to NANP end-points” does not make mobile broadband internet access service itself an interconnected service as defined by our rules. 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. 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. 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. 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. 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.

63. 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. 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." 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. 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. 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. Construing the CMRS definition to exclude mobile broadband internet access service as an information service similarly avoids 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. 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. 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."

64. 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*. 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. 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. 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. 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. 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." 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." We note that the statute directs us to determine whether mobile broadband internet access is functionally equivalent to a commercial mobile service, not whether it is functionally dissimilar from certain systems classified as private mobile.

65. We believe the test of functional equivalence adopted in the *Second CMRS Report and Order* hews much more faithfully to the intent of Congress than the approach applied in the *Title II Order* or the analyses in the record focusing on the extent of service availability. 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. Indeed, the relevant House Report, in describing "private carriers" that under the current law were offering service "[f]unctionally . . . indistinguishable" from carriers classified as common carriers, highlighted that these private carriers were offering services interconnected with the public switched network. 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 factors that are indicative of whether a service is closely substitutable in the eyes of consumers for a commercial mobile service.

66. 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. 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 uses. 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. 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. Currently, for example, unlimited voice and text only plans may range from \$15 to \$25 per month. In contrast, unlimited mobile broadband internet plans may range from \$60 to \$90 per month for a single line. 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. 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. 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.

C. Public Policy Supports Classifying Broadband Internet Access Service as an Information Service

67. 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, and ISPs cumulatively invested \$1.5 trillion in broadband networks between 1996 and 2015. Commenters who claim recent growth in online video streaming services is 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. 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, and even as early as 2011, a substantial majority of Americans had access to broadband at home. As of 2016, roughly 91 percent of homes had access to networks offering 25 Mbps, and there were 395.9 million wireless connections, twenty percent more than the U.S. population. Mobile data speeds have also dramatically increased, with speeds increasing 40-fold from the 3G speeds of 2007. Cable broadband speeds increased 3,200 percent between 2005 and 2015, while prices per Mbps fell by more than 87 percent between 1996 and 2012.

68. 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. 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

69. 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. 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. 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 broadband networks, 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.

70. *Investment by ISPs.* As the Commission has noted in the past, increased broadband deployment and subscribership require investment, and the regulatory climate affects investment. 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. Importantly, the risk that regulation might push returns below the competitive level also creates a disincentive for investment.

71. 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. In 2015, capital investment by broadband providers appears to have declined for the first time since the end of the recession in 2009. And investment levels fell again in 2016—down more than 3 percent from 2014 levels. 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 suggests that changes to the regulatory environment created by the *Title II Order* have stifled investment. In addition to data trends, 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.

72. Comparisons of ISP investment before and after the *Title II Order* suggest that reclassification has discouraged investment. Performing such a comparison, economist Hal Singer concluded that ISP investment by major ISPs fell by 5.6 percent between 2014 and 2016. 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). In contrast, Free Press presents statistics that it claims demonstrate that broadband deployment and ISP investment "accelerated" to "historic levels" 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.

73. 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. 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. 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. A separate comparison of the United States' ISP investment with ISP investment in Europe also suggests that ISP investment might decline further 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. 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*.

74. The record also contains analyses attempting to assess the predicted causal effects of Title II regulation on ISP investment and/or output. Some of these studies are "natural experiments" that seek 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. The record does not provide sufficient evidence to quantify the size of the effect of Title II on investment. An additional type of evidence is the effect of the *Title II Order* on stock prices. 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.

75. Prior FCC regulatory decisions provide a natural experiment allowing this question to be studied. Scholars employing the natural experiment 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 which were regulated under Title II). 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. 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. 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, this casual observation does not compare observed levels of subscribership and deployment to a relevant counterfactual that controls for other factors.

76. 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. 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. Because the study's measure of investment data covers the entire broadcasting and telecommunications industries, the change in investment measured in this study 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.

77. 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 (essentially incumbent LEC broadband supply) were under Title II before 2005, during the study's pre-treatment period. 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 was understated.

78. 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 U.S. 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. 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. 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.

79. 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 & Wright study) support this conclusion. Ford controls for macroeconomic factors that influence the overall economy using a two-way fixed-effects model. Hazlett & Wright's analysis of the effects of Title II on DSL subscribership cites regression analysis that controls for factors influencing the overall economy by including Canadian DSL subscribership as an explanatory variable. Consequently, we disagree with commenters who assert that Title II has increased or had no effect on ISP investment, given the failure of other studies to account for complexity of corporate decision-making and the macroeconomic effects that can play a role in investment cycles. 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.

80. *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." 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. 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.

81. Utility-style regulation is particularly inapt for a dynamic industry built on technological development and disruption. It is well known that extensive regulation distorts production as well as consumption choices. 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. This is apparent upon a casual observation of heavily-regulated utilities, such as the U.S. power, water, and mass transit systems. 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.

Within the communications 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. 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. 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.

82. 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. 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.” 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. 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. 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. 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 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.” These risks are not merely theoretical: As CenturyLink contends, financial analysts lowered industry 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.

83. 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.” 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. 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. 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. 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. 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.” Third, these ambiguous statements do not take into account the relevant counterfactual scenario in which Title II regulation had not been adopted. 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*. As such, we disagree with commenters who assert that maintaining the *Title II Order* regime is the best means of addressing regulatory uncertainty.

84. *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 reflects that small ISPs and new entrants into the market face disproportionate costs and burdens as a result of regulation. Many small ISPs lack the extensive resources necessary to comply with burdensome regulation, 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.

85. 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.” 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.” 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*. Because the logical expectation that Title II regulation would have particularly harmful effects on small ISPs and the communities they serve in is borne out by strong record evidence from a wide range of small ISPs, we are unpersuaded by speculative suggestions that small ISPs’ investment decisions can be fully or primarily explained based on other considerations such that the effect of Title II regulation can be neglected. The Wireless Internet Service Providers Association (WISPA) surveyed its members and found that over 80 percent 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.” 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.” 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.

86. 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. 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. 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.” 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. While, of course, not all small ISPs have faced these challenges, there is substantial record evidence that regulatory 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.

87. 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. 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.” 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” by helping to incentivize ISPs to expand coverage to underserved areas. We therefore reject arguments that our classification decision harms low-income communities.

88. *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.). We agree with commenters who assert that looking only at ISP investment ignores investment that is occurring at the edge. While there is tremendous investment occurring at the edge, the record does not suggest a correlation between edge 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. 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 & Wright).

89. 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 percent in 2015, a significant increase in investment. However, in 2013, well before the 2014 *Open Internet NPRM* that led to the *Title II Order*, that industry increased investment by over 100 percent. Similarly, Netflix’s greatest relative increase in capital expenditures occurred in 2013. Amazon increased its spending on technology and content, which consists primarily of research

and development expenses, by 28 percent in 2016, while in 2013 the increase was 41 percent. 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

90. *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. We therefore reject the argument that sparse evidence of harms is sufficient to justify the imposition of Title II.

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

92. 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.” 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.

93. 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. 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. However, the D.C. Circuit vacated the Commission's order in *Comcast*.

94. *Madison River* and *Comcast-BitTorrent*—the anecdotes most frequently cited in favor of Title II regulation—demonstrate that any problematic conduct was quite rare. 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. First, in 2012, AT&T restricted customers on certain data plans from accessing FaceTime on its cellular network for three months. AT&T contended it did so due to network management concerns, 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.

95. 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. Accordingly, the Xfinity Xbox application was not subject to the 2010 or 2015 rules, as it was a so-called "non-BIAS data service." 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.

96. 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. Electronic Frontier Foundation 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 web pages, sending search data to third parties, and adding cookies. 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. Similarly, the claim among several commenters that certain mobile providers blocked Google Wallet is misleading. 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. OTI'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 website 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." 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. We also recognize the existence of consumer complaints, but for the reasons discussed in Part IV.B below, we do not find them indicative of actual harm that the Commission's net neutrality rules are intended to protect against.

97. Because of the paucity of concrete evidence of harms to the openness of the internet, the *Title II Order* and its proponents have heavily relied on purely speculative threats. 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. 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. 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. 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.

98. *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 might have. 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, 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." 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. It is therefore no surprise that many ISPs have committed to refrain from blocking or throttling lawful internet conduct notwithstanding any Title II regulation. Finally, to the extent these economic forces fail in any particular situation, existing consumer protection and antitrust laws additionally protect consumers. We therefore find that Title II, and the attendant utility-style regulation of ISPs, are an unnecessarily heavy-handed approach to protecting internet openness.

99. 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." 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. 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, as ISPs “are unlikely to fully account for the detrimental impact on edge providers’ ability and incentive to innovate and invest.” 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.

100. 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 impact 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. Notably, the two-sided market we discuss here is the economic concept; we are not attempting to define a market for antitrust purposes. 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.) 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, subject to costs and competitive conditions, to maximize the gain both sides of the market obtain from interacting across the platform. The more competitive the market, the larger the net gains to subscribers and edge providers. Any analysis of such a market must account for each side of the market and the platform provider.

101. 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 internet access at home. There is no evidence that the remaining nearly one-fifth 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. 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. 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.

102. 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 to 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, and can be substantially eliminated or reduced by the more light-handed approach this order implements.

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

104. *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. 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 that mitigate their ability to exert market power. 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. We therefore find that the competition that exists in the broadband market, combined with the protections of our consumer protection and antitrust 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, and to the extent they do not, any resulting harms are outweighed by the harms of Title II regulation. Our discussion of competitive effects, unless otherwise specified, does not rely on or define any antitrust market.

105. *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 (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]

Speed of at least:	Number of providers			
	3+ (%)	2 (%)	1 (%)	0 (%)
3 Mbps down and 0.768 Mbps up	97.0	2.8	0.1	0.1
10 Mbps down and 1 Mbps up	93.6	5.7	0.6	0.1
25 Mbps down and 3 Mbps up	43.9	32.6	19.1	4.4

106. 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, place some competitive constraints on wireline providers. 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 percent of developed census blocks, but only account for 1.7 percent of subscriptions, while terrestrial fixed wireless providers report deployment in

38.5 percent of developed census blocks, but only account for 0.9 percent of all subscriptions. 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]

Speed of at least:	Number of providers			
	3+ (%)	2 (%)	1 (%)	0 (%)
3 Mbps down and 0.768 Mbps up	12.1	67.2	16.2	4.4
10 Mbps down and 1 Mbps up	9.0	58.5	26.3	6.2
25 Mbps down and 3 Mbps up	5.9	45.2	39.6	9.2

107. 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 U.S. 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. This table understates competition in several respects. First, even two competing wireline ISPs place 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 sunk investments. Yet, the cost of adding another customer, or of carrying more traffic from the same customers, is relatively low. 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. 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, especially in the presence of large sunk costs. Indeed, a wireline provider may be willing to cut prices to as low as the incremental cost of supplying a new customer. Thus, in this industry, even two active suppliers in a location can be consistent with a noticeable degree of competition, and in any case, can be expected to produce more efficient outcomes than any regulated alternative. 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. Other industries with large sunk costs have shown that "price declines with the addition of the first competitor, but drops by very little thereafter." 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.

108. 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 U.S. households are found in census blocks that at least two wireline ISPs report serving, and approximately another 8 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 serves. 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. Our conclusions do not hinge on finding effective competition everywhere. We find that competition exists in various forms nearly everywhere and to the extent that effective competition is not universal, the costs of Title II regulation outweigh the benefits of our more light-touch approach.

109. The Commission's prior findings on churn in the broadband marketplace do not dissuade us from concluding that wireline broadband ISPs often face competitive pressures. Although the Commission has previously found voluntary churn rates for broadband service to be quite low, a view which some commenters echo, substantial, quantified evidence in the record dissuades us from repeating that finding here. Regardless, even if high churn rates make market 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. Similarly, ISPs employ "save desks" often taking aggressive actions to convince subscribers seeking service cancellation to continue to subscribe, often at a discounted price. Thus, the record indicates material competition for customers regardless of churn levels.

110. *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. Even in rural areas at least four service providers covered approximately 69 percent of the population. 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.

111. Both the *Title II Order* and its supporters in the current proceeding fail to properly account for the pressure mobile internet access exerts on fixed, including fixed wireline, internet access supply. 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 used only mobile internet access service to go online 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), exclusively used mobile internet access service at home. New America/OTI notes that this study states that low-income Americans are far more likely to become mobile dependent than consumers who have higher levels of income. However, as noted above, this same study by the U.S. Census Bureau, which includes data collected from nearly 53,000 households, also found a significant increase in mobile-only use by higher-income households, and that the growth in the proportion of high-income households that exclusively use mobile internet service at home is accelerating. Several commenters discussed their own views on the extent to which mobile wireless might exert competitive pressure in some instances. 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. With the advent of 5G technologies promising sharply increased mobile speeds in the near future, the pressure mobile exerts in the broadband market place will become even more significant.

112. *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). 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).

113. Narrowly focusing on fixed ISPs, Comcast, the largest wireline ISP, has approximately one quarter of all residential subscribers in the US, 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 residential fixed broadband internet access service subscribers meets the Department of Justice (DOJ) designation of "moderately concentrated" (DOJ considers a market with an HHI value of between 1,500 and 2,500 to be moderately concentrated):

HHI OF SERVED RESIDENTIAL FIXED BROADBAND INTERNET ACCESS SERVICE SUBSCRIBERS

[as of December 31, 2016]

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

114. 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, may not depend on gaining access to any single provider. And calculating market shares for wireline ISPs based on their end users may be too simplistic if edge providers can reach end users at locations other than their homes, such as at work, or through a mobile ISP. We reject claims that we should entirely neglect this possibility based on assertions that users might be limited in their ability or willingness to switch between different options for broadband internet access in unspecified circumstances and for unspecified reasons. 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. 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). In fact, some edge providers might consider reaching end users on mobile devices to be roughly as valuable as, or more valuable than, reaching end users on wireline networks.

115. In addition, larger edge providers, such as Amazon, Facebook, Google and Microsoft, likely have significant advantages that would reduce the prospect of inefficient outcomes due to ISP market power. 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. 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, is 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).

116. 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." Commenters have echoed this "terminating access monopoly" concern. 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. 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."

117. As a blanket statement, this position is not credible. It is unlikely that any ISP, except the very largest, could exercise substantial market power in negotiations with Google or Netflix, but almost certainly no small wireless ISP, or a larger but still small rural cable company or incumbent LEC, could do so. 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.

118. Moreover, to the extent a terminating monopoly exists for some

edge providers, and it is not offset or more than offset by significant advantages, 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. 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. This means each ISP faces strong pressures to cut prices to end users, but does not face similar pressures in pricing to edge providers. However, ISPs are unlikely to earn supranormal profits, so any markups earned from edge providers in excess of total costs are generally passed through to end users. 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. 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.

119. 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 significant, 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. We note 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. 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. 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.

120. *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. Hogendorn may propose the 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 (e.g., GPT) use of those edge providers’ applications (just as edge providers do not). 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; and do not consider whether other less regulatory measures would be more appropriate. 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. These problems are more acute if only specific (as yet unidentified) edge providers generate positive externalities in supply. 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. We reject this approach as unreasonable and unreasoned.

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

121. 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.

122. *Consumer Protection.* The FTC has broad authority to protect consumers from “unfair or deceptive acts or practices.” 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. The FTC has used its Section 5 authority to enjoin some of the practices at issue in this proceeding, such as throttling. The FTC is prohibited under the FTC Act from regulating common carriers. 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, the return to Title I will increase the FTC’s effectiveness in protecting consumers. 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*. 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. 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.” 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. A unilateral change in a material term of a contract can be an unfair practice. 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.

123. Many of the largest ISPs have committed in this proceeding not to block or throttle legal content. These

commitments can be enforced by the FTC under Section 5, protecting consumers without imposing public-utility regulation on ISPs. 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. 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, if their actions cannot be described as anticompetitive, unfair, or deceptive—then the conduct should not be banned in the first place.” In addition to rejecting claims that the FTC’s authority is insufficient, we also reject arguments that it lacks the necessary expertise to protect consumers in this area. The comments by the FTC’s Acting Chairman in this proceeding persuade us of that agency’s understanding of the issues and of its ability to resume oversight of ISP practices. Just as importantly, any loss of expertise is outweighed by the benefits of having a single expert consumer protection agency overseeing the entire internet ecosystem. We anticipate sharing information and expertise with the FTC as we work together to protect consumers under the framework adopted today. And the transparency rule that we adopt today should allay any concerns about the ambiguity of ISP commitments, by requiring ISPs to disclose if the ISPs block or throttle legal content. For the same reasons, the transparency rule allows us to reject the argument that antitrust and consumer protection enforcers cannot detect problematic conduct. Finally, we expect that any attempt by ISPs to undermine the openness of the internet would be resisted by consumers and edge providers. We also observe that all states have laws proscribing deceptive trade practices.

124. *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. When challenged as anticompetitive under the antitrust laws, the types of conduct and practices prohibited under the *Title II Order* would likely be evaluated under the “rule of reason,” which amounts to a consumer welfare test. The Communications Act includes an antitrust savings clause, so the antitrust laws apply with equal vigor to entities regulated by the Commission. Should the hypothetical anticompetitive harms that proponents of Title II

imagine eventually come to pass, application of the antitrust laws would address those harms.

125. Section 1 of the Sherman Act bars contracts, combinations, or conspiracies in restraint of trade, making anticompetitive arrangements illegal. If ISPs reached horizontal agreements to unfairly block, throttle, or discriminate against internet conduct or applications, these agreements likely would be *per se* illegal under the antitrust laws. 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. 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. 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. Section 2 makes it unlawful for a vertically integrated ISP to anticompetitively favor its content or services over unaffiliated edge providers’ content or services. Treble damages are available under both Section 1 and Section 2. We note that FTC enforcement of Section 5 is broader and would apply in the absence of monopoly power.

126. 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, 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 service—a claim that could be considered an anticompetitive foreclosure claim under antitrust. Comcast also failed to disclose this network management practice and initially denied that it was engaged in any throttling—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), that conduct could be challenged as anticompetitive foreclosure.

127. 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.

128. *Reasonableness.* The unilateral conduct that is covered by Section 2 of the Sherman Act would be evaluated under a standard similar to the rule of reason applicable to conduct governed by Section 1, “an all-encompassing inquiry, paying close attention to the consumer benefits and downsides of the challenged practice based on the facts at hand.” 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” 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. 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.

129. 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. New arrangements that harm consumers and weaken competition will run afoul of the Sherman Act, and successful plaintiffs will receive treble damages. The FTC and DOJ can also bring enforcement actions in situations where private plaintiffs are unable or unwilling to do so. New arrangements benefiting 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.

130. We reject commenters’ assertions that the case-by-case nature of antitrust enforcement makes it inherently flawed. 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. 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. 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 with large edge providers, which include some of the most valuable companies in the world. Regulating these companies is unnecessarily harmful. The antitrust laws can be tailored to the ISP's circumstances. We reject as fundamentally speculative claims that significantly different behavior is likely from entities that were subject to antitrust suits, as compared to those that have not yet been—but still could be—subject to such suits, or based on the theory that antitrust authorities are likely to negotiate materially different resolutions even for similarly situated entities or circumstances.

131. 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. Such an approach better fits the dynamic internet economy than the top-down mandates imposed by Title II. Further, the antitrust laws recognize the importance of protecting innovation. Indeed, the FTC has pursued several cases in recent years where its theory of harm was decreased innovation. Accordingly, we believe that antitrust law can sufficiently protect innovation, which is a matter of particular importance for the continued development of the internet. 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. 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*. We find that the antitrust framework will strike a better balance by protecting competition and consumers while providing industry with greater regulatory certainty. We also find that the combination of the transparency rule, ISP commitments, and their enforcement by the FTC sufficiently address the argument made by several commenters that antitrust moves too slowly and is too expensive for many supposed beneficiaries of regulation.

132. 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. Some commenters have cast doubt on the effectiveness of *ex post* enforcement, preferring *ex ante* rules. 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." Even the "bright line" rules in the *Title II Order* contain an exception for "reasonable network management." 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.

133. Moreover, economic research has demonstrated that the threat of antitrust enforcement deters anticompetitive actions. Block et al. find that an increase in the likelihood of antitrust enforcement in the U.S. has a significant effect on lowering prices to consumers. Similarly it has been found that countries with vigorous antitrust statutes and enforcement, such as the United States, reduce the effects of anticompetitive behavior when it does occur. 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. 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. 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). 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.

134. *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." 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. 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, rather than being aimed at or impacting political expression. In any case, the transparency rule and the ISP commitments backed up by FTC enforcement are targeted to preserving free expression, particularly the no-blocking commitment. 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.

135. 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. 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." 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.

D. Restoring the Information Service Classification Is Lawful and Necessary

136. 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.” This delegation includes the legal authority to interpret the definitional provisions of the Communications Act. Nothing in the record meaningfully contests this fundamental point. 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. 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. As discussed above, this 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. 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. 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. 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.

137. An agency of course may decide to change course, and such a decision is not, as some commenters suggest, inherently suspect. 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.” 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. The “possibility of drawing two inconsistent conclusions from the evidence does not prevent an administrative agency’s finding from being supported by substantial evidence.” As such, we reject arguments that reclassification must be premised on changed factual circumstances or preceded by a significant gap in time. Rather, we are “entitled to assess administrative records and evaluate priorities” in light of our current policy judgments. As the Court recognized in *Brand X*, “in *Chevron* itself, the Court deferred to an agency interpretation that was a recent reversal of agency policy.” 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.

138. 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.” 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.” 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.

139. 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 service, this view of the

Title II Order’s action faced skepticism at the time, and we find those concerns confirmed in practice. 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. That report was later retracted. 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. The amorphous and potentially wide-ranging implications of the Title II-based regulatory framework have hindered (or will likely hinder) marketplace innovation, as the record here indicates and as one logically would expect. We thus reject the suggestion that the *Title II Order* yielded “legal and economic certainty.” 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*, 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*.

140. 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. Contrary to Twilio’s assertion that bright-line rules are over a decade old, we note that the Commission did not establish any rules until 2010—just seven years ago—and did not establish enforceable bright-line rules until 2015—just two years ago. Assertions in the record regarding absolute levels of edge investment do not meaningfully attempt to attribute particular portions of that investment to any reliance on the *Title II Order*. 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*.

141. “[A]n agency literally has no power to act . . . unless and until Congress confers power upon it.” 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.

142. 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.” Such interpretations “typically [are] greet[ed] . . . with a measure of skepticism” by courts, and we believe they should be by the Commission, as well. 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. As relevant here, the DC 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.’” That seems at least as apt a description of the *Title II Order* decision classifying broadband internet access 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. 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. 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. 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

143. 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. 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. 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*. We also are not persuaded that our classification decision will itself have material negative consequences as it relates to safe harbor protections for ISPs under the Digital Millennium Copyright Act (DMCA). Our actions here return to the analysis in *Brand X* and other pre-2015 classification decisions and the associated successful regulatory framework, and we are not persuaded that the DMCA would apply materially differently now so as to render the regulatory framework for broadband

internet access service less successful today.

1. Ending Title II Regulation of Internet Traffic Exchange

144. 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.” 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. 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. We thus return internet traffic exchange to the longstanding free market framework under which the internet grew and flourished for decades.

145. *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.” We disagree with assertions that withdrawing from regulation of interconnection agreements would represent a break with longstanding Commission precedent. The Commission made clear in the *Open Internet Order* that it did not intend the open internet rules “to affect existing arrangements for network interconnections, including existing paid peering arrangements.” 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 providers 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.

146. 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 anecdotes 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. 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. 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." The Commission did not articulate specific criteria that it would apply when hearing such disputes.

147. *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 that Order's extension of Title II authority to internet traffic exchange arrangements. 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." There is no dispute that ISPs, backbone transit providers, and large edge providers are sophisticated, well-capitalized businesses. Indeed, the *Title II Order* acknowledged as much, and refused to impose "prescriptive rules" or even "draw policy conclusions concerning new paid internet traffic arrangements." Notwithstanding these acknowledgments, 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.

148. We believe that applying Title II to internet traffic exchange arrangements was unnecessary and is likely to unduly inhibit competition and innovation. As the court in *USTelecom* observed, the *Title II Order's* oversight

of interconnection was premised on the concern that ISPs could evade the restrictions imposed via regulation of the "last mile" through actions taken in connection with internet interconnection arrangements. Here, however, we conclude that Title II regulation and conduct rules are not warranted even as to the "last mile." The *Title II Order* itself recognized that the need for intervention in matters of internet interconnection was less certain than its conclusions regarding ISP actions in the "last mile." Against that backdrop, along with our finding that Commission regulation of ISP conduct in the "last mile" is unwarranted, we see no grounds for finding that Title II regulation of internet traffic exchange is necessary here. And absent Title II as a hook for regulation of internet traffic exchange, we can identify no other source of statutory authority to impose market-wide prophylactic regulation on these arrangements. To the extent we have previously proposed conditions on internet traffic exchange activities in the context of specific mergers, those conditions were based on the circumstances of specific entities in specific transactions and were agreed to by those entities to facilitate a proposed merger. Those conditions were not, however, predicated on any statutory provision giving the Commission general authority to engage in prophylactic regulation of all interconnection arrangements.

149. Instead, we find that freeing internet traffic exchange arrangements from burdensome government regulation, and allowing market forces to discipline this emerging and competitive market is the better course. It is telling that, in the absence of Title II regulation, the cost of internet transit fell over 99 percent on a cost-per-megabit basis from 2005 to 2015. We do not rely on transit pricing alone, but consider it in combination with the other factors discussed in this section, and thus reject as inapposite claims that transit pricing alone is an inadequate way of evaluating internet traffic exchange. Further, we find that even those commenters that insist that ISPs wield undue power in the interconnection market have offered no evidence that ISPs generally charge supra-competitive prices for internet traffic exchange arrangements. Moreover, we reject the proposition that prior examples of settlement-free peering necessarily mean that a transit price above zero is inherently anti- or supra-competitive. While the move to paid peering may affect the bottom line of Tier 1 transit providers, those effects

cannot justify *ex ante* regulation unless they are anti-competitive and harm end users. The record is devoid of evidence of consumer harm in this regard since the resolution of the Netflix congestion issues in 2014. Indeed, the new case-by-case dispute process has gone unused, even as OVDs—which ISPs presumably might view as competitors to affiliated video programming products or services—have proliferated. Moreover, contrary to these unsubstantiated claims of harm, we find that there are substantial pro-competitive and pro-consumer benefits to alternative internet traffic exchange arrangements. Because we conclude that this is the wiser course, we reject comments asserting that a dispute resolution process is needed.

150. 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. CDNs play a similar role. We believe that market dynamics, not Title II regulation, allowed these diverse arrangements to thrive. 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 investment and innovation in this market. Returning to the pre-*Title II Order* light-touch framework will also eliminate the asymmetrical regulatory treatment of parties to internet traffic exchange arrangements. As NTCA explains, the *Title II Order* imposed a one-sided interconnection duty upon last-mile ISPs—even though, especially in rural areas, "many ISPs are a tiny fraction of the size of upstream middle mile and transit networks or content and edge providers." The record reflects that the asymmetric regulation imposed under the *Title II Order* unjustifiably provided edge providers, many of whom are sophisticated entities with significant market power due to high demand for their content, with additional leverage in negotiating interconnection. 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 negotiate mutually-acceptable arrangements to meet end user demands for network usage.

151. We find that present competitive pressures in the market for internet

traffic exchange mitigate the risk that an ISP might block or degrade edge provider traffic through arrangements for internet traffic exchange sufficiently to undermine the need for regulatory oversight through Title II regulation. We thus disagree with generalized assertions by some commenters to the contrary. In drawing this conclusion, we recognize that the Commission previously imposed internet interconnection conditions in the *AT&T/DirecTV Order* and *Charter/TWC Order* to address claimed risks that the merged entity could use internet interconnection to disadvantage rivals, particularly competing providers of over-the-top video services. We decline to draw judgments about the nature of the market as a whole from individual determinations made in the context of particular merger orders. As an initial matter, the Commission made these determinations pursuant to its authority to impose conditions on transfers of licenses or authorizations. As noted above, the Commission has identified no broader general authority to impose these conditions on the interconnection market as a whole. In addition, those orders were based on an analysis of specific issues raised in those adjudications and application of a public-interest statutory standard that differs from the competition-based standard applied by the Department of Justice's Antitrust Division during merger review. Further, those orders were based on a narrowly-focused analysis of specific issues raised in those adjudications. As we explain above, based on the record here, we decline to repeat that finding of high switching costs. Finally, because those orders were adopted without the benefit of notice-and-comment rulemaking, we decline to make general inferences from conditions contained in such documents, when the voluminous record submitted in this proceeding persuades us that the interconnection market is competitive. We thus are unpersuaded that the actions taken in the *AT&T/DirecTV Order* and *Charter/TWC Order* should guide our decisions here. Interconnection concerns generally focus on the possibility that an ISP could block or allow congestion on paths used to deliver traffic to that ISP as a way of harming rivals or extracting unreasonable payments associated with that interconnection. Edge providers have a variety of options in deciding how to deliver their content to ISPs, including a large number of transit providers, CDNs, and direct interconnection. Edge providers also can shift the path for their traffic in

response to congestion in real time. To address the possibility that edge providers could simply shift their traffic away from a blocked or congested path, it appears in most cases that the ISP would need to engage in blocking or allow congestion on essentially all paths to its network, affecting all traffic to and from the ISP's customers. To the extent that some theorize that an ISP might harm rivals with particularly high volumes of internet traffic through actions taken with respect to a smaller number of interconnection paths, we are not persuaded that such large providers of internet traffic would lack sufficient leverage to achieve a reasonable marketplace resolution, particularly given the increased likelihood that such a large source of internet traffic would be highly valued by end-users with which it could communicate directly regarding any interconnection dispute. In addition, although certain forms of traffic might be particularly sensitive to the quality of interconnection such that some alternative interconnection paths would be inferior, it is likely that blocking or allowing degradation of a substantial number of paths to the ISP still would be necessary for such conduct to effectively impact such traffic given that the concerns in the record center on large ISPs, that are more likely than small ISPs to have multiple viable interconnection paths. Further, that is but one of many considerations that would affect the relative incentives and marketplace leverage of the relevant ISP and interconnecting network and/or edge provider. The practical viability of such a strategy thus depends in general on an ISP's willingness to undermine the performance of all or virtually all internet traffic to and from its customers. An ISP's incentive to take such a step would involve a complex marketplace evaluation requiring it to account for the associated risk of customer dissatisfaction. Although this consideration alone does not necessarily guarantee that no ISP ever would engage in such conduct, we reject interconnection-related concerns that fail to meaningfully grapple with this factor. Further, this factor must be considered in conjunction with the overlay of legal protections, such as antitrust and consumer protection laws discussed below. We find that these marketplace dynamics are likely to impede, if not preclude, any effort by an ISP to harm a specific edge provider's traffic.

152. Insofar as certain commenters contend that incidents such as Cogent's experience delivering Netflix traffic in

2014 suggest otherwise, we note that the origin of the Cogent-Netflix congestion is disputed and that Cogent admitted to de-prioritizing certain types of traffic for the congestion. In any event, there is ample evidence that major edge providers, including Netflix, YouTube, and other large OVDs, are some of the "most-loved" brands in the world. 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. Further, as NCTA explains, "the edge providers that send enough traffic to impact interconnection—e.g., Netflix, Google/YouTube, Facebook, and Amazon—are entities critical for a broadband provider to meet its customers' needs." As another commenter explains, edge providers, including OVDs, are complementary to ISPs' broadband business, and reducing the value of these complementary products would harm ISPs by reducing demand for their services. For all of these reasons, we find that market dynamics are likely to mitigate the risk that ISPs will block, degrade, or deprioritize specific edge providers' traffic.

153. In addition, if an ISP attempts to block or degrade traffic in a manner that is anti-competitive, such conduct may give rise to actions by federal or state agencies under antitrust or consumer protection laws. Some commenters have called for continued *ex post* regulation of internet traffic exchange between ISPs and transit or edge providers, potentially under Title I, or disclosure requirements. For the reasons discussed here, we reject these arguments. As to antitrust laws, antitrust authorities are empowered to police anti-competitive conduct by ISPs (conduct that would be particularly salient in cases where ISP competition was limited or nonexistent). 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 for the reasons discussed herein, *infra* Part VI.A. In addition, the backstop of generally-applicable consumer protection laws continues to protect consumers and edge providers. These laws, particularly antitrust laws which prevent certain refusals to deal, will also protect small, rural ISPs which may face difficulties interconnecting with edge providers, transit providers, and larger

ISPs. Accordingly, assertions that public-utility regulation of internet traffic exchange arrangements is necessary to allow consumers to reach content of their choice are unpersuasive.

154. Even assuming that economic incentives and antitrust and consumer protection remedies may not prevent or redress all potential harms in the interconnection market, we find the regulatory approach adopted in the *Title II Order* fatally overbroad as it relates to the interconnection concerns identified in the record here. The *Title II Order's* legal basis for oversight of interconnection depended on the definition of broadband internet access service to include traffic exchange and the classification of that entire service as a telecommunications service subject to Title II—a classification that applied to all ISPs, regardless of size or other characteristics. Here, however, we have already rejected the *Title II Order's* rationales for Title II regulation and explained the harms that flow from that regime. The record reveals that retaining the *Title II Order* approach to interconnection would be overbroad in other ways, as well. The classification decision in that *Order* applied to all ISPs regardless of size, while the concerns about ISPs in the record here center on a few of the largest ISPs. The *Title II Order* classification also applied irrespective of the specific traffic being carried, while some advocates of interconnection oversight here express particular concerns about certain subsets of traffic, like video traffic. Particularly given the marketplace complexities associated with whether a given ISP would, in fact, engage in harmful conduct, we are not persuaded that the inchoate interconnection concerns identified in the record here would justify retaining the *Title II Order's* approach to interconnection with its sweeping, preemptive—and harmful—resulting consequences.

2. Forbearance

155. As we have reinstated the information service classification of broadband internet access service, the forbearance granted in the *Title II Order* is now moot. 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*. 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).

156. 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. 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. Operators choosing to offer broadband transmission on a common carriage basis could do so under tariff or could use non-tariff arrangements. 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.” 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.

157. 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. 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 operation of the communications service, but excluding dial-up internet access service.” 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.

158. Carriers offering broadband transmission service have never been subject to the *Title II Order* forbearance framework. 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*. 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*. 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). 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.

159. 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. We find the reasoning in the *Wireline Broadband Classification Order* for offering these options persuasive. 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). 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. We reiterate that broadband transmission services are not impacted by our decision to reclassify broadband internet access service as an information service.

160. 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*. 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 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. 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. Further, we clarify that those carriers 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,” 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. To the extent that other related issues are raised in the record, we find that those issues are better addressed in the appropriate proceeding.

161. 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*. 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,” we see no need to address the complicated question of

prophylactic forbearance and find such extraordinary measures unnecessary.

3. Returning Broadband Privacy Authority to the FTC

162. 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), the nation’s premier consumer protection agency and the agency primarily responsible for these matters in the past. 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.

163. Historically, the FTC protected the privacy of broadband consumers, policing every online company’s privacy practices consistently and initiating numerous enforcement actions. 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.” 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. The effect of this decision was to shift responsibility for regulating broadband privacy to the Commission. And in lieu of an even playing field, the Commission adopted sector-specific rules that deviated from the FTC’s longstanding framework. 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.

164. 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. 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. 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.” Under the FTC’s technology neutral approach to privacy regulation, consumers will have the consistent level of protection across

the internet ecosystem that they expect. With over 100 years of experience, only the FTC can apply consumer protection rules consistently across industries. As NTCA contends, the FTC has not only the legal jurisdiction, but also the subject matter expertise. 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. Moreover, the FTC has been involved in numerous initiatives that address consumer protection in the broadband marketplace. 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.” 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.” 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.” The same approach should apply to ISPs. We also observe that ISPs are not uniquely positioned with respect to their insight into customers’ private browsing behavior. As the FTC found in 2012, “ISPs are just one type of large platform provider that may have access to all or nearly all of a consumer’s online activity. Like ISPs, operating systems and browsers may be in a position to track all, or virtually all, of a consumer’s online activity to create highly detailed profiles.” And only the FTC operates on a national level across industries, which is especially important when regulating providers that operate across state lines. In light of the FTC’s decades of successful experience, including its oversight of ISP privacy practices prior to 2015, we find arguments that we should decline to reclassify to retain sector-specific control of ISP privacy practices unpersuasive. The FTC has previously brought enforcement actions against ISPs regarding internet access and related issues. 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. We also note that while it may be true that the Commission itself has longstanding privacy experience with respect to traditional telephone service providers, we disagree that this history uniquely qualifies the Commission to regulate the privacy practices of ISPs or other online providers, when prior to 2015, the Commission did not, and indeed lacked the authority to, regulate such providers. We do not believe that experience with traditional telephone service providers necessarily translates to experience or expertise with respect to all communications providers. 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. As discussed above, these criticisms are unfounded. 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.

165. 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. 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. We note that commenter concerns focus not just on the FTC's privacy authority but its authority more generally. We reject those arguments for the reasons stated above. 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. 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. We note that at any given time there always may be some litigation pending somewhere in the country challenging the scope or validity of various laws—whether the Communications Act, FTC Act, or state consumer protection laws—that the FCC might seek to rely on directly (in the case of the Act) or indirectly (where relying in part on the availability of protections provided by other laws). The Commission would be paralyzed if it had to wait for all such litigation to be resolved before it acted. Because the

panel decision has been set aside in *FTC v. AT&T Mobility*, we do not view that case as materially different than any other such pending litigation—so we likewise do not view it as necessary to wait on the resolution of that case before acting here. In light of these considerations and the benefits of reclassification, we find objections based on *FTC v. AT&T Mobility* insufficient to warrant a different outcome.

4. Wireline Infrastructure

166. 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. The importance of facilitating broadband infrastructure deployment indicates that our authority to address barriers to infrastructure deployment warrants careful review in the appropriate proceedings. We disagree with commenters who assert that Title II classification is necessary to maintain our authority to promote infrastructure investment and broadband deployment. 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. 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. 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.

167. 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 attaching equipment—and we remind pole owners of their continuing obligation to offer “rates, terms, and conditions [that] are just and reasonable.” 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.

5. Wireless Infrastructure

168. 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) as well as wireless broadband internet access. 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. 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.”

169. 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. The Commission similarly clarified that Section 332(c)(7)(B) would continue to apply to wireless 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.

170. 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. This clarification will alleviate concerns that wireless broadband internet access providers not face increased barriers to infrastructure

deployment as a result of today's reclassification. This clarification also is consistent with our commitment to promote broadband deployment and close the digital divide.

171. 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. 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. 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. 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.

172. 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.

6. Universal Service

173. 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" and require that "carriers receiving support . . . offer broadband capabilities to customers." What services a particular customer

subscribes to is irrelevant as 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.

174. *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. In November 2017, we adopted an NPRM in the Lifeline proceeding (*Lifeline NPRM*) (83 FR 2075) 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, 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. 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." 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

175. 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 that includes 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. 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. Just as the *Title II Order* promised to "exercise our preemptive 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.

176. 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. This includes any state laws that would require the disclosure of broadband internet access service performance information, commercial terms, or network management practices in any way inconsistent with the transparency rule we adopt herein. Our transparency rule is carefully calibrated to reflect the information that consumers, entrepreneurs, small businesses, and the Commission needs to ensure a functioning market for broadband internet access services and to ensure the Commission has sufficient information to identify market-entry barriers—all without unduly burdening ISPs with disclosure requirements that would raise the cost of service or otherwise deter innovation within the network. Among other things, we thereby preempt any so-called "economic" or "public utility-type" regulations, 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 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. 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. 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. 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. For another, nothing in this order forecloses state regulatory commissions 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.

177. 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. 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." Under this order, states retain their traditional role in policing and remedying violations of a wide variety of general state laws. 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." Indeed, the continued applicability of these general state laws is one of the considerations that persuade us that ISP conduct regulation is unnecessary here. 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); 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); or authority to adopt state universal service policies not inconsistent with the Commission's rules under Section 254. 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. We note that we continue to preempt any state from imposing any new state universal service fund contributions on broadband internet access service. We appreciate the many important functions served by our state and local partners, and 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.

178. *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.

179. 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. 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.

180. 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." 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." Five years later, the Commission reaffirmed the jurisdictionally interstate nature of broadband internet access service in the *Wireless Broadband Internet Access Order*. 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." 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.

181. 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. 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. 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. 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. OTI insists that broadband service "can easily be separated into interstate and intrastate" communications based on "the location of the ISP." In OTI's view, if "the closest ISP headend, tower, or other facility to the customer" is in the same state as the customer, then the customer's internet

communications are all intrastate. This view misapprehends the end-to-end analysis employed by the Communications Act to distinguish interstate and intrastate communications, which looks to where a communication ultimately originates and terminates—such as the server which hosts the content the consumer is requesting—rather than to intermediate steps along the way (such as the location of the ISP). Indeed, OTI's view that a communication is intrastate whenever the "last mile" facilities between the customer and the communications carrier are within the same state would improperly deem virtually all communications to be intrastate, including interstate telephone calls, contrary to long-settled precedent.

182. 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.

183. Second, the Commission has independent authority to displace state and local regulations in accordance with the longstanding federal policy of nonregulation for information services. 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"). When Congress adopted the 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.

184. 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." 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." 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—prohibits any common-carriage regulation, whether federal or state, of information services.

185. 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. It would be incongruous if state and local regulation were preempted when the 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. Some commenters note that Section 253(c), 47 U.S.C. 253(c), preserves certain state authority over telecommunications services. But that provision has no relevance here, given our finding that broadband internet access service is an information service. Although Section 253(c) recognizes that states have historically played a role in regulating telecommunications services, there is no such tradition of state regulation of information services, which have long been governed by a federal policy of nonregulation.

8. Disability Access Provisions

186. 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) already applies a variety of accessibility requirements to broadband internet access service. Congress adopted the CVAA after recognizing that "internet-based and digital technologies . . . are driven by growth in broadband . . . are now pervasive, offering innovative and exciting ways to communicate and share information." 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). ACS means: "(A) interconnected

VoIP service; (B) non-interconnected VoIP service; (C) electronic messaging service; and (D) interoperable video conferencing service." 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, which requires that providers of advanced communications services (ACS) 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. These mandates already apply according to their terms in the context of broadband internet access service. 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. 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]." Finally, new Section 717 creates new enforcement and recordkeeping requirements applicable to Sections 255, 716, and 718. Section 710 of the Act addressing hearing aid compatibility and implementing rules enacted thereunder also apply regardless of any action taken in this Order. To the extent that other accessibility issues arise, we will address those issues in separate proceedings in furtherance of our statutory authority to ensure that broadband networks are accessible to and usable by individuals with disabilities.

9. Continued Applicability of Title III Licensing Provisions

187. 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. Title III generally provides the Commission with authority to regulate "radio communications" and "transmission of energy by radio." Among other provisions, Title III gives the Commission the authority to adopt rules preventing interference and allows it to classify radio stations. It also establishes the basic licensing scheme for radio stations, allowing the Commission to grant, revoke, or modify

licenses. 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. 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.

II. A Light-Touch Framework To Restore Internet Freedom

188. 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." 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. 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." And it continued for the first six years of the Obama Administration. We reaffirm and honor this longstanding, bipartisan commitment by adopting a light-touch framework that will preserve internet freedom for all Americans.

189. 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

190. "Sunlight," Justice Brandeis famously noted, "is . . . the best of disinfectants." 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 services. 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 consumers make informed choices about their purchase and use of broadband internet access services. 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.

191. 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*, 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*. 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 "identifying . . . market entry barriers for entrepreneurs and other small businesses in the provision and ownership of . . . information services." 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

192. *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." In addition, the *Open Internet Order* provided guidance on both what information should be disclosed and how those disclosures should be made. 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. Though the other rules adopted in the *Open Internet Order* were overturned, the D.C. Circuit upheld the transparency rule in *Verizon*.

193. *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," 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." 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." 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. 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.”

194. *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 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.”

195. *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.” 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*, were required to make specific disclosures regarding the commercial terms (including specific information regarding prices and fees), 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), and network practices (including, for example, application and user-based practices) of the broadband internet access services they offer. 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. The *Open Internet Order* included specific disclosures related to congestion management, application-specific behavior, device attachment rules, and security. 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). The *2016 Advisory Guidance*, released on delegated authority, provided examples of acceptable methodologies for disclosure of performance characteristics and offered guidance regarding compliance with the point of sale requirement. 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.

2. Refining the Transparency Rule

196. 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. 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.

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.”

197. In doing so, we note that the record overwhelmingly supports retaining at least some transparency requirements. Crucially, the transparency rule will ensure that consumers have the 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. We reject commenter assertions that we should not maintain any transparency requirements. CenturyLink does 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.

198. 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, 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. 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.” 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. As the Commission explained in the *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.’” We caution ISPs that they may not evade application of the transparency rule “simply by blocking end users’ access to some internet points.”

a. Content of Required Disclosures

199. 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*. 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 rule,” 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.

200. *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. 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, 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.

201. 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.

- *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.

- *Application-Specific Behavior*. Whether and why the ISP blocks or rate-controls 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.

- *Device Attachment Rules*. Any restrictions on the types of devices and any approval procedures for devices to connect to the network.

- *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). 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.

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.” The record reflects an overwhelming preference for this approach from the *Open Internet Order*, which provides ISPs greater flexibility and certainty.

202. *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.

203. 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 service for real-time applications. 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. 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.

- *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.

204. *Commercial Terms*. In the *Open Internet Order*, the Commission required ISPs to disclose commercial terms of service, including price, privacy policies, and redress options. The record in this proceeding supports retaining these disclosures. 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.

- *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.

- *Redress Options.* Practices for resolving complaints and questions from consumers, entrepreneurs, and other small businesses.

205. *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 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.

206. 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. 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.

207. The record supports the elimination of these additional reporting obligations and our return to the requirements under the *Open Internet Order*. The record indicates that the additional performance disclosures are among the most burdensome. 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 new requirements of the *Title II Order*. Disclosure of packet loss, for example, requires providers to conduct additional engineering analysis. 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, suggesting concern that the additional reporting obligations provided little consumer benefit relative to their cost. 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. In addition, providing such information imposes significant costs on providers. 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*.

208. *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. 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

209. *Means of Disclosure.* The Commission relies on ISP 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.

210. 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. 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*. Alternatively, ISPs may transmit their disclosures to the Commission, and we will make them available on a publicly available, easily accessible website. 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 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). 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.

211. We also eliminate the direct notification requirement adopted in the *Title II Order*. 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.

212. *Format of Disclosure.* We eliminate the consumer broadband label safe harbor for form and format of disclosures adopted in the *Title II Order*. Adopting the label could require some ISPs to expend substantial resources to tailor their disclosures to fit the format. 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

213. Just as the Commission did in the *Open Internet Order*, 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.” 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. 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, rather than limited to those identified in the original Section 257(a) proceeding. 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. 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. 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. 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, and requiring disclosure of network management practices appears to be reasonably ancillary to that duty.”

214. 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, 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. 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. 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. Aspects of the performance of broadband internet access services, particularly if undisclosed, thus could constitute barriers within the scope of Section 257(a) in the future, 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. 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. While we observe that the transparency rule will help eliminate potential barriers, our reliance on Section 257 as authority for the transparency rule centers on the need for that rule to identify barriers and report to Congress in that regard. Contrary to some arguments, we thus do not interpret Section 257 as an over-arching grant of authority to eliminate any and all barriers we might identify. We also are not persuaded by summary claims that Section 257 does not grant us authority here insofar as those claims lack meaningful analysis of the text of that provision. Thus, we continue to believe that Section 257 provides us authority for the rule we adopt.

215. We believe that eliminating market entry barriers in the provision

and ownership of information services and the provision of parts and services to information service providers will 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.

216. *The Transparency Requirements Are Consistent With the First Amendment.* We conclude that the transparency requirements represent permissible regulation of commercial speech. The 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*, and there is some record support for applying that framework. 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. 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.

217. The transparency requirements we retain directly advance substantial government interests in encouraging competition and innovation. The Act itself reveals the significance of these interests. 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. In carrying out our responsibilities under Section 257,

Congress directed us to advance, among other things, "vigorous economic competition" and "technological advancement." Such interests are similar to those recognized as substantial by courts, as well.

218. The disclosure of information regarding broadband internet access service characteristics, rates, and terms directly advance those statutory directives. We thus disagree with arguments that there is insufficient justification for our transparency requirements to withstand First Amendment scrutiny. 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. 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. 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. 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 of the Act.

219. 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 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. 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. 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

220. 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

221. Transparency, competition, antitrust laws, 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. 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.” The transparency rule will also assist “third-party experts such as independent engineers and consumer watchdogs to monitor and evaluate network management practices.”

222. 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. 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.

223. 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. In 2008, Comcast reached a settlement with BitTorrent months before the Commission issued *Comcast-BitTorrent*. By 2012, with a transparency rule in place, AT&T reversed its blocking of access to FaceTime over its cellular network on certain data plans of its own accord within approximately three months. 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, suggesting that ISPs are “resolving” issues by not letting them occur in the first place.

224. 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. 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. 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. These time periods provide a natural experiment disproving the notion that conduct rules are necessary to promote openness. We thus reject arguments to the contrary.

225. 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, 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. By restoring authority to the FTC to take action against deceptive ISP conduct, reclassification empowers the expert consumer protection agency to exercise the authority granted to them by Congress if ISPs fail to live up to their word and thereby harm consumers.

226. 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. 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 ISPs—not worth the possible benefits.

2. Costs of Conduct Rules Outweigh Benefits

a. General Conduct Rule

227. We find that the vague Internet Conduct Standard is not in the public interest. Following adoption of this Order, the FTC will be able to 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. As such, we find commenters urging the Commission to retain this standard, even with modifications, unpersuasive.

228. 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.” The rule simply warns carriers to behave in accordance with what the Commission *might* require, without articulating any actual standard. Even ISP practices based on consumer choice are not presumptively permitted; they are merely “less likely” to violate the rule. Moreover, the uncertainty caused by the Internet Conduct Standard goes far beyond what supporters characterize as the flexibility that is necessary in a regulatory structure to address future harmful behavior. We thus find that the vague Internet Conduct Standard subjects providers to substantial regulatory uncertainty 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” has not been borne out.

229. 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, already provides the appropriate flexibility and predictability to protect consumers and competition and addresses new practices that might develop with less harm to innovation. 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. 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.

230. 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. The record reflects that ISPs and edge providers of all sizes have foregone and are likely to forgo or delay innovative service offerings or different pricing plans that benefit consumers, citing regulatory uncertainty under the Internet Conduct Standard in particular. 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. Even some proponents of Title II acknowledge these public interest harms. 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.” 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.”

231. The now-rescinded Zero-Rating Report issued by the Wireless Telecommunications Bureau illustrates the uncertainty ISPs experience as a result of the Internet Conduct Standard adopted in the *Title II Order*. 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. 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. 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*. The now-rescinded *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.

232. We anticipate that eliminating the vague Internet Conduct Standard will also lower compliance and other related costs. 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.” 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.” 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 via higher prices and/or limited service offerings and upgrades.” The record reflects widespread agreement from commenters with otherwise divergent views that the Internet Conduct Standard creates significant harm without countervailing benefits.

233. 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.” 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. 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. As such, we reject commenters' assertions to the contrary.

b. Paid Prioritization

234. 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. For these reasons and because we find that eliminating the ban on paid prioritization arrangements could lead to lower prices for consumers for broadband internet access service, we find that our action benefits low-income communities and non-profits, and we reject arguments to the contrary. We reject the argument that the benefits of our elimination of the paid prioritization ban must be “uniform across providers or geographic areas.” This is an unnecessarily high and rigid threshold. The public—including low-income communities—benefits, and that is enough. Thus, the costs (forgone benefits) of the ban are likely significant and outweigh any incremental benefits of a ban on paid prioritization.

235. *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. 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. 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. We reject commenter assertions that banning the use of price as a signal provides more accurate price signals. Relatedly, we reject the argument that non-price signals, including user-directed prioritization, are by themselves sufficient to allow innovation and development in this area, because in a market system, price signals are generally necessary to efficiently allocate resources. Further, as commenters note, there has been significant uncertainty about the scope of the prohibition on paid prioritization arrangements. 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.

236. 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. 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." We therefore reject arguments that the ban is necessary to provide a level playing field for edge providers. Indeed, in other areas of the economy, paid prioritization has helped the entry of new providers and brands. It is therefore no surprise that paid prioritization has long been used throughout the economy. 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. We thus reject arguments that allowing pro-competitive paid prioritization will reduce the entry and expansion of small, new edge providers. In so finding, we do not mean to suggest that CDN services themselves constitute paid prioritization.

237. *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. 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 both subscribers and ISPs. 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. 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. 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. 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 that require special QoS guarantees. And to the extent an ISP has market power, antitrust and consumer protection laws could be used to address ISPs' anti-competitive paid prioritization practices. 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).

238. *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. For example, one study presents a model in which two competing ISPs serve a continuum of edge providers. 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. 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." Thus, we reject the argument that the ban is necessary to ensure long-term network investment.

239. We reject assertions that allowing paid prioritization would lead ISPs to create artificial scarcity on their networks by neglecting or downgrading non-paid traffic. 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." Moreover, as discussed above, in practice paid prioritization is likely to be used to deliver enhanced service for applications that need QoS guarantees. 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," such as email, software updates, or cached video. We thus reject arguments premised on the theory that ISPs could and would act to create artificial scarcity on their networks and thereby broadly require paid prioritization. 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.

240. *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. Although we do not premise our analysis on the expectation of a total pass-through of these revenues to end-users, we find no support for assumptions that there would be no pass-through of revenues at all. 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.”

241. *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.” 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.” Accordingly, economic “models . . . suggest that network neutrality regulation is more likely to worsen than improve the digital divide.” 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. 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. 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. 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. 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.”

242. *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 practices that favor some internet traffic over other traffic, if the practices are paid or benefit any affiliated entity. 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 anticompetitive or pro-competitive. We therefore reject the argument that the paid prioritization ban should be modified to more squarely focus on anticompetitive conduct. 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. 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. Under the antitrust laws, a paid prioritization agreement challenged as anticompetitive would be evaluated under the case-specific rule of reason. 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. 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, and in fact, no internet paid prioritization agreements have yet been launched in the United States, rendering any concerns about such practices purely theoretical at this time. We therefore reject arguments that *ex ante* rules are preferable.

243. 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 the exercise of 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). 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. 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

244. 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. For the same reasons, we reject alternative formulations of the no-blocking and no-throttling rules.

245. *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. As one commenter explains, 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.” Second, numerous ISPs, including the four largest fixed ISPs, have publicly committed not to block or throttle the content that consumers choose. 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. 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*. 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. Finally, ISPs have long-term incentives to preserve internet openness, which creates demand for the internet access service that they provide.

246. *Consensus against blocking and throttling.* We emphasize once again that we do not support blocking lawful content, consistent with long-standing Commission policy. The potential consequences of blocking or throttling lawful content on the internet ecosystem are well-documented in the record and in Commission precedent. Stakeholders from across the internet ecosystem oppose the blocking and throttling of lawful content, including ISPs, public interest groups, edge providers, other content producers, network equipment manufacturers, government entities, and other businesses and individuals who use the internet. 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. 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. As to free expression in particular, we

note that none of the actual incidents discussed in the *Title II Order* squarely implicated free speech. If anything, recent evidence suggests that hosting services, social media platforms, edge providers, and other providers of virtual internet infrastructure are more likely to block content on viewpoint grounds. Furthermore, in the event that any stakeholder were inclined to deviate from this consensus against blocking and throttling, we fully expect that consumer expectations, market incentives, and the deterrent threat of enforcement actions will constrain such practices *ex ante*. To the extent that these incentives prove insufficient and any stakeholder engages in such conduct, such practices can be policed *ex post* by antitrust and consumer protection agencies.

247. 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. 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. 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

248. 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.

a. Section 706 of the 1996 Act

249. 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.

250. 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.

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.”

251. 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; to employ regulatory forbearance; to promote competition in the local telecommunications market; and to remove barriers to infrastructure investment. The Commission thus need not interpret Section 706 as an independent grant of regulatory authority to give those provisions meaning. Further, consistent with

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. This view also comports with the Commission’s original interpretation of the language of Section 706(a), avoids rendering the provisions of Section 706(a) or (b) surplusage, and does not otherwise conflict with the statutory text. Although the term “shall” “generally indicates a command that admits of no discretion,” 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). 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. 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.

252. 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. 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. 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. 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 exercise of that regulatory authority. 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. 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. 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.

253. 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. 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.” 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. The 1996 Act also added provisions to the Communications Act to eliminate regulatory barriers to competition and network deployment in certain defined circumstances. 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 impose those same duties or adopt similar regulatory treatment largely unbound by that tailoring in a “Miscellaneous” provision of the same legislation.

254. 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. 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.

255. 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.” 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.” 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.” 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. The *Title II Order* is similar in this regard. 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. 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.” Section 230 likewise is in tension with the view that Section 706(a) and (b) grant the Commission regulatory authority as the Commission previously claimed. These inconsistencies are avoided, however, if the deployment directives of Section 706(a) and (b) are viewed as hortatory.

256. 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. 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. 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.”

257. 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. 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. 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. 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. 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.

258. Guidance in the *Open Internet Order* also asserted that the exercise of Section 706 authority could not be “inconsistent with other provisions of law,” 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.” 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 “[]consistent 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. 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 an unreasonable discrimination with respect to common carrier services. 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. 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 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). 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.

259. 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.” The Commission itself previously noted the ambiguous significance of that language. 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.” 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. 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. 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.

260. 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. Section 706 of the 1996 Act was not incorporated into the Communications Act, nor does the 1996 Act provide for it to be enforced as part of the Communications Act. 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. Thus, the Communications Act provisions generally authorizing penalties do not apply to Section 706 of the 1996 Act or rules adopted thereunder. 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.” 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. Although the *Title II Order* claimed that Section 706 of the 1996 Act included an implicit grant of enforcement authority, 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. 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.

261. 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

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.” 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. 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. 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. 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. 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.

262. 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. Indeed, the DC Circuit in *Verizon* observed that the language of Section 706(a) “certainly could be read” as hortatory. The court also recognized as much with respect to Section 706(b), given its lack of clarity. 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.

263. 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. 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). MMTC and NABOB express concerns that disavowing Section 706 as a source of authority could constrain the Commission's ability to address "digital redlining." They do not explain, however, why other statutory provisions such as Section 254 are inadequate to address issues of unserved or underserved communities should more ultimately be found to be needed beyond the Commission's other efforts to promote broadband deployment more generally. We also are unpersuaded by arguments for maintaining the prior interpretation in a general effort to retain greater authority to regulate ISPs. Given that agencies like the Commission are creatures of Congress, and given our responsibility to bring to bear appropriate tools when interpreting and implementing the statutes we administer, 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.

264. 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

265. 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 DC Circuit observed that the Commission there "acknowledge[d] that Section 230(b)" is a "statement [] of policy that [itself] delegate[s] no regulatory authority." Although the *Internet Freedom 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 regulatory authority for rules here. 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." 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

266. 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. 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. We also are not persuaded by claims that Section 1 of the Act is a grant of regulatory authority here. In this very context, the DC Circuit has held that Section 1 is better understood as a statement of Congressional policy. 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. 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. 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.

267. *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 unreasonable rates or practices in the case of common carrier voice services and/or Section 251(a)(1)'s interconnection requirements for common carriers. 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. 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. 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. 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. 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. 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*. 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.

268. 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. 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 Commission[] otherwise has under law.'" 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.

269. 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. 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. 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*. 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.

270. *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. 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. To the extent that the *Open 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*, nor are these issues adequately addressed by the limited references to this potential authority in the record.

271. 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. 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[]." 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. Neither the *Open Internet Order* nor the record here provides a response enabling us to address these concerns.

272. 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)." 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." 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 deliver satellite cable programming or satellite broadcast programming. The minimal discussion of this Title VI authority in the record here does not remedy that shortcoming either.

273. *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, that historical approach would result in disparate treatment of ISPs, enabling conduct rules encompassing wireless ISPs, but not wireline ISPs. For the reasons set forth below, we decline to adopt a patchwork of rules that subjects different categories of ISPs to different treatment. 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.

d. Our Evaluation of Possible Authority for Conduct Rules Confirms That Such Rules Are Inappropriate

274. 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. The two provisions most directly on point—Section 706 of the 1996 Act and Section 230(b) of the Communications Act—are better read as policy pronouncements rather than grants of regulatory authority. 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." This policy is reinforced by the deregulatory objectives of the 1996 Act more generally. 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. 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. 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. 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.

275. 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 Order*. This would leave substantial portions of the marketplace unaddressed by conduct rules including a number of the largest ISPs.

276. 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 conduct rules. In various contexts, the Commission previously has recognized that such artificial regulatory distinctions can distort the marketplace and undercut competition. The primary objectives of the 1996 Act are "[t]o promote competition and reduce regulation," 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." 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 not—the record does not demonstrate that any incremental benefits from patchwork regulation would outweigh the harm from the resulting potential for marketplace distortions.

277. 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. Here, by contrast, substantial segments of the 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

278. 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*. 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.

279. *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.” 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.” 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. 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. We reject as unsupported any suggestions that only an Ombudsperson, and not other professional staff from the Consumer and Governmental Affairs Bureau, would be able to engage with consumers in beneficial ways. Indeed, the name, purpose, and well-established track record for that Bureau make clear its understanding of and responsiveness to consumer concerns.

280. 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. 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. 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.

281. 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.

282. 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, 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. 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. 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. 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.

283. *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. 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. 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.

284. *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. Rather they add costs and uncertain timelines since there is no specific timeframe within which to act, which can also inhibit innovation. Further, the fact that no ISP has requested an advisory opinion since

they first became available further demonstrates that they are not needed.

III. Cost-Benefit Analysis

285. 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.” There was generally favorable record support for conducting this analysis. Relying on the findings discussed above in light of the record before us and as a result of our economic analysis, we use a cost-benefit 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 benefits). This assessment is equivalent to conducting a qualitative cost-benefit analysis, because the purpose of comparing benefits and costs is to identify whether a policy change improves economic efficiency. We reject the argument that the *Internet Freedom NPRM* provided inadequate notice regarding our cost-benefit analysis here. The Commission made clear in that *NPRM* that it “propose[d] to compare the costs and the benefits” of each of the “changes for which we seek comment above.” It also provided detailed guidance to commenting parties about the way in which the Commission proposed to conduct its cost-benefit analysis, and the nature of the information it was seeking in order to do so. The result is a robust record on we have based our analysis. Moreover, that *NPRM* plainly provided “the terms or substance of the proposed rule,” and also provided “sufficient factual detail and rationale for the rule to permit interested parties to comment meaningfully.” Nor can there be any question that “[t]he final rule” is a “logical outgrowth” of the notice.

286. 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); maintaining the internet conduct rule; maintaining the no-blocking rule; maintaining the no-throttling rule; and maintaining the ban on paid prioritization. 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. 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 cost-benefit framework.

287. 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 due to 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.” 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. We believe that attempting to assert the nature of these interdependencies, particularly given the limited record on such matters, 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 increase uncertainty and the unintended side effects of each element, without making each element materially more effective.

288. 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.

289. *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. 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. 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*.

290. 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.” 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 value consumers lose if the FCC maintains the Title II classification. This is a conservative estimate as the social welfare impact of this forgone investment would likely have been positive, because frequently (1) a customer's willingness to pay exceeds what the customer actually pays, and (2) the provider may make an economic profit. We therefore conclude that the private costs of maintaining a Title II classification due to foregone network investment are directionally negative and likely constitute at least several billion dollars annually based on the record.

291. The Commission also asked in the *Internet Freedom NPRM* about additional costs that could result from foregone network investments. When regulation discourages investment in the network, society is likely to lose some spillover benefits that the purchasers of broadband internet access do not themselves capture. Such forgone 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), and improvements in productivity and innovation that occur because broadband is a general-purpose technology. The record provides little information that 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.

292. 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 cost-benefit analysis we conclude the incremental benefits of maintaining the Title II classification are approximately zero.

293. 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 cost-benefit analysis supports the decision to reclassify broadband internet access service as a Title I service.

294. *Evaluating Transparency Rules.* As discussed already, we find that the benefits of a transparency rule are positive based on the record. Given our decision to classify broadband internet access service 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 *Open Internet Order* and the *Title II Order*, all have positive benefits.

295. 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. 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. While we do not have specific information 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. 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.

296. 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. However, our transparency rule would have a larger net positive benefit than the transparency rule in the *Title II Order*. Therefore, our cost-benefit analysis of the transparency alternatives supports our decision to adopt a transparency rule more limited than the one in the *Title II Order*.

297. *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.

298. We also find above that the benefits of the internet conduct standard are limited if not approximately zero. In this cost-benefit 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.

299. 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.

300. *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. 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.

301. We also find above that the benefits of the ban on paid prioritization are limited. In this cost-benefit 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. 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. The record therefore supports a finding of small to zero benefits.

302. 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. 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.

303. *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. 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, the compliance costs of these rules could increase.

304. 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 a transparency rule 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. 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).

IV. Order

A. Denial of INCOMPAS Petition To Modify Protective Orders

305. INCOMPAS requests that we modify the protective orders in four recent major transaction proceedings involving internet service providers to allow confidential materials submitted in those dockets to be used in this proceeding. INCOMPAS argues that the materials “are necessary to understanding and fully analyzing incumbent broadband providers’ ability and incentives to harm edge providers.” The motion is opposed by the three companies whose materials would be most affected—Comcast, Charter and AT&T—as well as by Verizon. For the reasons set forth below, after carefully “balancing . . . the public and private interests involved,” we deny INCOMPAS’s request.

306. 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.” 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. 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.

307. 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. 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.

308. 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 tens of thousands. 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. The Commission has broad discretion in how to manage its own proceedings, and we find several problems with requiring the materials INCOMPAS seeks to be submitted into this rulemaking docket.

309. 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. 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. 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.

310. 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. Transaction review is an adjudicatory matter, involving the entities engaging in the transaction—not the entire industry or marketplace. Particularly given that there are thousands of ISPs doing business in the United States, INCOMPAS does not address how a quite incomplete picture of industry practices could meaningfully improve the Commission's analysis.

311. 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 available at the Commission would be difficult and costly to produce. Making the information 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. 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.

312. Finally, as noted above, the materials INCOMPAS seeks were provided pursuant to express assurances against their use in future proceedings.

313. INCOMPAS cites two examples in which the Commission staff placed into the record competitively sensitive materials originally submitted in

another docket. We find both inapposite. As an initial matter, we note that the Commission is not bound by its staff's prior decisions. The first example INCOMPAS cites involved a series of spectrum license transfers between wireless telecommunications companies where the Commission added confidential data to the docket under a new protective order. When evaluating transactions such as these, 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.

314. 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. 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. Here, they do.

315. 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. Indeed, transaction reviews specifically do not address issues that are not transaction-specific but are industry-wide. 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.

316. 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. 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," and has acted accordingly. None of this would be the case with respect to the regulations that some commenters urge us to adopt in this rulemaking.

317. INCOMPAS argues that "[l]ooking to the past is the standard way for administrative agencies to make predictive judgments." However, the analysis supporting our decision to reclassify 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.

318. 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. 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.

319. 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

320. 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. 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." 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." For the reasons set forth below, we deny NHMC's request.

321. In responding to NHMC's underlying FOIA requests, we produced nearly 70,000 pages of records responsive to the requests. 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 consumer under the category of Open Internet/Net Neutrality—and consumer complaint correspondence with the Open Internet Ombudsperson. 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.

322. 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." NHMC began receiving the documents it claims are relevant to the proceeding on June 20, 2017. During the following months, NHMC engaged with Commission staff to discuss the consumer complaint documents. NHMC also conducted an Expert Analysis of the consumer complaint documents and submitted the analysis along with the complaints it found relevant in the record, in addition to submitting the full universe of consumer complaints it received under the FOIA request into the record on December 1—nearly three months after the Commission produced them all. Thus, we remain unpersuaded that NHMC requires additional time to review the documents and instead agree with commenters that NHMC has raised "the mere existence of these complaints as a pretext for delay."

323. 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, and conducting a robust review of the voluminous 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." 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. Further, the overwhelming majority of these informal complaints do not allege conduct implicating the Open Internet rules. 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. The consumer complaints NHMC submitted in the record as part of the Expert Analysis further support this

point. Further, we are not required to resolve all of these informal complaints before proceeding with a rulemaking. 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.

324. 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, and NHMC filed an analysis the materials it deemed relevant in the record, we believe that NHMC had ample opportunity to "meaningfully review the informal complaint materials and provide comment."

V. Procedural Matters

A. The Administrative Record

325. In reviewing the record in this rulemaking, the Commission complied with its obligations under the Administrative Procedure Act (APA), including the obligation to consider all "relevant matter" received, to adequately consider "important aspect[s] of the problem," and to "reasonably respond to those comments that raise significant problems." Consistent with these obligations, the Commission focused its review of the record on the submitted comments that bear substantively on the legal and public policy consequences of the actions we take today. Thus, our decision to restore internet freedom did not rely on comments devoid of substance, or the thousands of identical or nearly-identical non-substantive comments that simply convey support or opposition to the proposals in the *Internet Freedom NPRM*.

326. Because we have complied with our obligations under the APA, we reject calls to delay adoption of this Order out of concerns that certain non-substantive comments (on which the Commission did not rely) may have been submitted under multiple different names or allegedly "fake" names. The Commission is under no legal obligation to adopt any "procedural devices" beyond what the APA requires, such as identity-verification procedures. In addition, the Commission has previously decided not to apply its internal rules regarding false statements in the rulemaking context because we do not want "to hinder full and robust public participation in such policymaking proceedings by encouraging collateral wrangling over

the truthfulness of the parties' statements." To the extent that members of the public are concerned about the presence in the record of identical or nearly-identical non-substantive comments that simply convey support or opposition to the proposals in the *Internet Freedom NPRM*, those comments in no way impeded the Commission's ability to identify or respond to material issues in the record. Indeed, the Order demonstrates the Commission's deep engagement with the substantive legal and public policy questions presented in this proceeding.

B. Final Regulatory Flexibility Analysis

327. As required by the Regulatory Flexibility Act (RFA), an Initial Regulatory Flexibility Analysis (IRFA) was incorporated into the *Internet Freedom NPRM*. 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 the Order.

C. Paperwork Reduction Act Analysis

328. 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 will be invited to comment on the new information collection requirements 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.

329. 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 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 ISPs 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*.

D. Congressional Review Act

330. The Commission will send a copy of the 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).

E. Data Quality Act

331. The Commission certifies that it has complied with the Office of Management and Budget Final Information Quality Bulletin for Peer Review, 70 FR 2664, January 14, 2005, and the Data Quality Act, Public Law 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 WC Docket No. 17-108.

F. Accessible Formats

332. To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an email 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 email: FCC504@fcc.gov; phone: (202) 418-0530 (voice), (202) 418-0432 (TTY).

VI. Final Regulatory Flexibility Analysis

333. As required by the Regulatory Flexibility Act of 1980 (RFA), as amended, Initial Regulatory Flexibility Analysis (IRFAs) was incorporated in the *Notice of Proposed Rule Making (Internet Freedom NPRM)* for this proceeding. 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. This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.

A. Need for, and Objectives of, the Final Rules

334. 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, 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. We retain the transparency rule adopted in the *Open Internet Order*, 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."

335. We also eliminate the formal complaint procedures under Part 8 of the Act, because the informal complaint procedures are sufficient. 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. 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.

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 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 entrepreneurs and other small businesses the necessary information to innovate and improve products.

336. 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.

337. 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.

338. 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.

339. The legal basis for the rules we adopt today includes sections 3, 4, 201(b), 230, 231, 257, 303, 332, 403, 501, and 503 of the Communications Act of 1934, as amended, 47 U.S.C. 153, 154, 201(b), 230, 231, 257, 303, 332, 403, 501, 503. The transparency rule we adopt today relies on Section 257 of the Communications Act. 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.”

B. Summary of Significant Issues Raised by Public Comments to the IRFA

340. The Wireless Internet Service Providers Association (WISPA) argued that the IRFA was incomplete and inaccurate. We find that this FRFA

sufficiently addresses WISPA’s concerns and explains how we “alleviate many of the significant financial harms on small providers imposed by the [*Title II Order*].”

C. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration

341. 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.

342. 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

343. 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. The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.” In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act. 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). Nationwide, there are a total of approximately 28.2 million small businesses, according to the SBA. A “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”

1. Total Small Entities

344. *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. 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. These types of

small businesses represent 99.9 percent of all businesses in the United States which translates to 28.8 million businesses. 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.” Nationwide, as of August 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.” U.S. Census Bureau data from the 2012 Census of Governments indicates that there were 90,056 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States. Of this number there were 37,132 General purpose governments (county, municipal and town or township) with populations of less than 50,000 and 12,184 Special purpose governments (independent school districts and special districts) 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. Based on this data we estimate that at least 49,316 local government jurisdictions fall in the category of “small governmental jurisdictions.”

2. Broadband Internet Access Service Providers

345. 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, which has an SBA small business size standard of 1,500 or fewer employees. These are also labeled “broadband.” The latter are within the category of All Other Telecommunications, which has a size standard of annual receipts of \$32.5 million or less. 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. 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. Consequently, we estimate that the majority of broadband internet access service provider firms are small entities.

346. 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

347. *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 services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.” 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. 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. Thus, under this size standard, the majority of firms in this industry can be considered small.

348. *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 FRFA. Under that size standard, such a business is small if it has 1,500 or fewer employees. 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. The Commission therefore estimates that most providers of local exchange carrier service are small entities that may be affected by the rules adopted.

349. *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 17 of this FRFA. Under that size standard, such a business is small if it has 1,500 or fewer employees. According to Commission data, 3,117 firms operated in that year. Of this total, 3,083 operated with fewer than 1,000 employees. 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. Of this total, an estimated 1,006 have 1,500 or fewer employees.

350. *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 17 of this FRFA. 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 with fewer than 1,000 employees. 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. 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. In addition, 72 carriers have reported that they are Other Local Service Providers. Of this total, 70 have 1,500 or fewer employees. 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.

351. 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.” 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. 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.

352. *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 17 of this FRFA. The applicable size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees. According to Commission data, 359 companies reported that their primary telecommunications service activity was the provision of interexchange services. Of this total, an estimated 317 have 1,500 or fewer employees and 42 have more than 1,500 employees. Consequently, the Commission estimates that the majority of interexchange service providers are small entities that may be affected by rules adopted.

353. *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. According to Commission data, 33 carriers have

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. Consequently, the Commission estimates that the majority of OSPs are small entities that may be affected by our adopted rules.

354. *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. 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. 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. Of these, an estimated 279 have 1,500 or fewer employees. 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

355. 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.

356. *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. 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. 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 Mobile Radio (SMR) services. Of this total, an estimated 261 have 1,500 or fewer employees. 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.

357. 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. 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. Of this total, an estimated 261 have 1,500 or fewer employees, and 152 have more than 1,500 employees. Thus, using available data, we estimate that the majority of wireless firms can be considered small.

358. *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. The SBA has approved these definitions.

359. *1670–1675 MHz Services.* This service can be used for fixed and mobile uses, except aeronautical mobile. 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.

360. *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). Under the SBA small business size standard, a business is small if it has 1,500 or fewer employees. According to Commission data, 413 carriers reported that they were engaged in wireless telephony. Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees. Therefore, a little less than one third of these entities can be considered small.

361. *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. 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. These small business size standards, in the context of broadband PCS auctions, have been approved by the SBA. 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. On April 15, 1999, the Commission completed the reacquisition of 347 C-, D-, E-, and F-Block licenses in Auction No. 22. Of the 57 winning bidders in that auction, 48 claimed small business status and won 277 licenses.

362. 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. 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. On May 21, 2007, the Commission completed an auction of 33 licenses in the A, C, and F Blocks in Auction No. 71. Of the 12 winning bidders in that auction, five claimed small business status and won 18 licenses. On August 20, 2008, the Commission completed the auction of 20 C-, D-, E-, and F-Block Broadband PCS licenses in Auction No. 78. Of the eight winning bidders for Broadband PCS licenses in that auction, six claimed small business status and won 14 licenses.

363. *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. 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. The SBA has approved these small business size standards for the 900 MHz Service. 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. 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.

364. 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. 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. 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.

365. In addition, there are numerous incumbent site-by-site SMR licenses and licenses 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. We assume, for purposes of this analysis, that all of the remaining extended implementation authorizations are held by small entities, as defined by the SBA.

366. *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. 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. 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. 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. The SBA approved these small size standards. 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. 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. 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. 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.

367. In 2007, the Commission reexamined its rules governing the 700 MHz band in the *700 MHz Second Report and Order*. 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. Twenty winning bidders, claiming small business status (those with attributable average annual gross revenues that exceed \$15 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.

368. *Upper 700 MHz Band Licenses.* In the *700 MHz Second Report and Order*, the Commission revised its rules regarding Upper 700 MHz licenses. 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. 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.

369. *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. 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. 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. SBA approval of these definitions is not required. An auction of 52 Major Economic Area licenses commenced on September 6, 2000, and closed on September 21, 2000. 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.

370. *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. 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 three years not exceeding \$40 million. 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. These definitions were approved by the SBA. 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.

371. *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, 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.

372. *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.

373. *Fixed Microwave Services.* Microwave services include common carrier, private-operational fixed, and broadcast auxiliary radio services. They also include the Local Multipoint Distribution Service (LMDS), the Digital Electronic Message Service (DEMS), and the 24 GHz Service, where licensees can choose between common carrier and non-common carrier status. 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. Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees. 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.

374. *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)). 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. 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. After adding the number of small business auction licensees to the number of incumbent 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.

375. In 2009, the Commission conducted Auction 86, the sale of 78 licenses in the BRS areas. 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. Auction 86 concluded in 2009 with the sale of 61 licenses. 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.

5. Satellite Service Providers

376. *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.

377. *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.” The category has a small business size standard of \$32.5 million or less in average annual receipts, under SBA rules. For this category, Census Bureau data for 2012 show that there were a total of 333 firms that operated for the entire year. Of this total, 299 firms had annual receipts of less than \$25 million. Consequently, we estimate that the majority of satellite telecommunications providers are small entities.

378. *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.” 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. 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. Consequently, we conclude that the majority of All Other Telecommunications firms can be considered small.

6. Cable Service Providers

379. 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.

380. *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. The SBA size standard for this industry establishes as small, any company in this category which has annual receipts of \$38.5 million or less. According to 2012 U.S. Census Bureau data, 367 firms operated for the entire year. Of that number, 319 operated with annual receipts of less than \$25 million a year and 48 firms operated with annual receipts of \$25 million or more. Based on this data, the Commission estimates that the majority of firms operating in this industry are small.

381. *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. Industry data indicate that there are currently 4,600 active cable systems in the United States. Of this total, all but nine cable operators nationwide are small under the 400,000-

subscriber size standard. In addition, under the Commission’s rate regulation rules, a “small system” is a cable system serving 15,000 or fewer subscribers. Current Commission records show 4,600 cable systems nationwide. 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. Thus, under this standard as well, we estimate that most cable systems are small entities.

382. *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 exceed \$250,000,000 are approximately 52,403,705 cable video subscribers in the United States today. 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. Based on available data, we find that all but nine incumbent cable operators are small entities under this size standard. 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. 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

383. “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." 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. 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. 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

384. 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 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."

385. 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.

386. 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, 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

387. 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.

388. The transparency rule we adopt today strikes an appropriate balance by requiring ISPs 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 on ISPs. The additional reporting obligations, the direct notification requirement, and the "safe harbor" all required ISPs to expend significant resources without a corresponding gain to consumers, entrepreneurs, or other small businesses.

389. 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 and no-throttling rules. 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.

390. 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.

391. 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.

G. Report to Congress

392. 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. 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**.

VII. Ordering Clauses

393. Accordingly, *it is ordered* that, pursuant to Sections 3, 4, 201(b), 230, 231, 257, 303, 332, 403, 501, and 503 of the Communications Act of 1934, as amended, 47 U.S.C. 153, 154, 201(b), 230, 231, 257, 303, 332, 403, 501, 503, this Declaratory Ruling, Report and Order, and Order *is adopted*.

394. *It is further ordered* that parts 1, 8, and 20 of the Commission's rules *are amended* as set forth in the Final Rules of the Order.

395. *It is further ordered* that this Declaratory Ruling, Report and Order, and Order, including those amendments which contain new or modified information collection requirements that require approval by the Office of Management and Budget (OMB) under the Paperwork Reduction Act *will become effective* upon the effective date announced when the Commission publishes a document in the **Federal Register** announcing such OMB approval and the 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 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.

396. *It is further ordered* that the *incompas* Petition to Modify Protective Orders is *denied*.

397. It is further ordered that the National Hispanic Media Coalition (NHMC) Motion Regarding Informal Consumer Complaints is denied.

398. 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).

399. It is further ordered that, pursuant to 47 CFR 1.4(b)(1), the period for filing petitions for reconsideration or petitions for judicial review of this Declaratory Ruling, Report and Order, and Order will commence on the date that a summary of this Declaratory Ruling, Report and Order, and Order is published in the Federal Register.

List of Subjects in 47 CFR Parts 1, 8, and 20

Administrative practice and procedure, Cable television, Common carriers, Communications common carriers, Reporting and recordkeeping requirements, Satellites, Telecommunications, Telephone, Radio.

Federal Communications Commission.

Marlene H. Dortch, Secretary, Office of the Secretary.

Final Rules

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR parts 1, 8, and 20 as follows:

PART 1—PRACTICE AND PROCEDURE

1. The authority citation for part 1 continues to read as follows:

Authority: 47 U.S.C. 34–39, 151, 154(i), 154(j), 155, 157, 160, 201, 225, 227, 303, 309, 332, 1403, 1404, 1451, 1452, and 1455.

2. Amend § 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 in

§§ 1.720 through 1.736, and pole attachment complaint proceedings under section 224 of the Act and in §§ 1.1401 through 1.1424;

* * * * *

PART 8—INTERNET FREEDOM

3. The authority citation for part 8 is revised to read as follows:

Authority: 47 U.S.C. 154, 201(b), 257, and 303(r).

4. Amend part 8 by revising the part heading to read as set forth above.

5. Revise § 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 characteristics, 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.

§§ 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 [Removed]

6. Remove §§ 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

7. The authority citation for part 20 continues to read as follows:

Authority: 47 U.S.C. 151, 152(a) 154(i), 157, 160, 201, 214, 222, 251(e), 301, 302, 303, 303(b), 303(r), 307, 307(a), 309, 309(j)(3), 316, 316(a), 332, 610, 615, 615a, 615b, 615c, unless otherwise noted.

8. Amend § 20.3 by:

a. In the definition of "Commercial mobile radio service," revising paragraph (b);

b. In the definition of "Interconnected Service," revising paragraph (a); and

c. Revising the definition of "Public Switched Network."

The revisions read as follows:

§ 20.3 Definitions.

* * * * *

Commercial mobile radio service.

* * *

* * * * *

(b) The functional equivalent of such a mobile service described in paragraph (a) of this definition.

* * * * *

Interconnected 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

* * * * *

Public Switched Network. 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.

* * * * *