

TABLE OF CONTENTS

EXECUTIVE SUMMARY	iii
I. INTRODUCTION.	1
II. CTIA SUPPORTS A FREE AND OPEN INTERNET BACKED BY A NEW LEGISLATIVE FRAMEWORK.....	2
III. THE <i>TITLE II ORDER</i> HAS GENERATED UNCERTAINTY AND UNDERMINED CONSUMER INTERESTS.	7
A. Title II Imposes Significant Burdens on Mobile Broadband Providers.....	7
B. The <i>Title II Order's</i> General Conduct Standard Has Hindered Innovation and Harmed Consumers.....	9
C. The <i>Title II Order's</i> Refusal to Account for Consumer Preferences in its Categorical Prohibitions Threatens the Evolution of Mobile Wireless Services.....	14
D. The <i>Title II Order's</i> "Enhancements" to the Transparency Rule Do Not Benefit Consumers and are Overly Burdensome.....	18
IV. THE <i>TITLE II ORDER</i> LACKED ANY SOUND ECONOMIC BASIS.	21
A. The <i>Title II Order</i> Applied Heavy-Handed Regulation Where Sound Economic Principles Call for Light Touch Regulation.....	21
B. Heavy-Handed Title II Regulation Has Imposed Significant Costs that Vastly Exceed Any Benefits.....	25
V. BROADBAND INTERNET ACCESS IS AN INTEGRATED INFORMATION SERVICE.....	28
A. The Commission Must Classify Broadband Internet Access Consistent with Congress's Vision.	28
B. Commission Orders From 1998 and 2007, Affirmed by the Supreme Court, Properly Deemed Broadband Internet Access an Integrated Information Service.	32
C. Mobile Broadband Internet Access's Features Render It an Integrated Information Service.	33
D. There Is No Legal Barrier Against Reversing the <i>Title II Order</i> , and Various Legal Infirmities In Fact Favor Reversal.	42
VI. MOBILE BROADBAND INTERNET ACCESS IS A PRIVATE MOBILE RADIO SERVICE, NOT A COMMERCIAL MOBILE RADIO SERVICE, UNDER THE COMMUNICATIONS ACT.	45
A. Mobile Broadband is a Private Mobile Service.	46
B. Mobile Broadband is Not the Functional Equivalent of CMRS.....	52
VII. BROADBAND INTERNET ACCESS IS AN INTERSTATE INFORMATION SERVICE AND IMMUNE FROM STATE AND LOCAL REGULATION.....	54
CONCLUSION	58

Exhibit A: Declaration of Peter Rysavy

Exhibit B: Declaration of Robert Hahn

EXECUTIVE SUMMARY

CTIA and its members are committed to Internet openness. Consumers should be able to access the content, applications, and services they want without interference from broadband providers or, for that matter, any other stakeholders in the Internet ecosystem. The vigorously competitive mobile broadband market demands nothing less. To maintain and expand their customer bases, mobile broadband providers work hard to ensure that consumers are not impeded in their efforts to access the content they desire and to know what services they receive. This dynamic market, moreover, drives investment and innovation, leading to next-generation networks, exciting new services, and pioneering plan options.

But a free and open Internet is not synonymous with Title II regulation. The *Title II Order* adopted the wrong approach to Internet openness – one that restricts innovation and investment and harms mobile broadband consumers. The Commission should repudiate the *Title II Order*'s classification of mobile broadband as a telecommunications service and a commercial mobile service, and rescind other harmful determinations made in that decision.

And to put to rest the uncertainties that have enveloped Internet openness in the last few years, Congress should now step in to confirm that broadband Internet access is an integrated information service and legislate specific, common sense net neutrality rules that advance consumer welfare *and* promote investment and innovation.

* * *

As an initial matter, Title II regulation undermines consumer interests by deterring innovation and suppressing investments by providers large and small. Some have argued that a Title II framework here is innocuous because carriers are not explicitly subject to some of the most intrusive forms of regulation available under Title II, such as *ex ante* rate regulation. But the fact remains that Title II provides the Commission with a vehicle to expand its regulatory oversight of broadband providers at any time. Time and again, the *Title II Order* emphasizes that it only refrains from taking certain actions “at this time” or “for now.” And in the period of time between the Commission’s adoption of the *Title II Order* and the change in administrations, the Commission quickly showed its willingness to impose new mandates on broadband Internet access offerings. Such a regulatory environment creates intensive uncertainty that undercuts innovation and harms consumers. Mobile broadband providers need to know that they can innovate, invest, and operate their networks in a manner that will help them attract and retain customers, without the constant regulatory overhang that invites others to second-guess their decisions or micromanage their businesses, even when those others promise not to do so “at this time” or “for now.” The Commission should return broadband Internet access classification to a Title I service.

Further, in applying to broadband Internet access the strictures of public utility regulation and the vague “general conduct standard,” the *Title II Order* badly undermined market-driven efforts to please consumers, trading permission-less innovation for an expansive and costly regulatory regime. The general conduct standard, which is so vague that no one – including

former Chairman Wheeler – has been able to articulate its boundaries since its adoption, injects unnecessary uncertainty into the market, impeding innovation and investment alike. The uncertainty imposed by Title II and the general conduct standard is most clearly exemplified by the Wheeler-led Commission’s investigation of mobile broadband providers’ free data offerings. When providers are left to guess as to whether a new offering will come under attack and be subjected to extended government review, with the possibility of substantial penalties, the risks posed by innovation – whether in technology or business plan – can outweigh even the significant benefits of offering new consumer-friendly functions and service offerings.

The *Title II Order’s* categorical prohibitions are similarly problematic. They do not account for pro-competitive and pro-consumer offerings, truncating still further providers’ abilities to cater to consumers’ wants. For example, the paid prioritization ban adopted in the *Title II Order* could undermine future broadband offerings that consumers demand. Moreover, new limits on the interpretation of the already-narrow “reasonable network management” exception further undermine providers’ freedom to evolve and manage their networks for the betterment of their entire subscriber bases. Policymakers should ensure that any rules applied to the dynamic broadband sector do not prohibit or deter such welfare-enhancing arrangements.

Further, the *Title II Order’s* “enhancements” to the transparency rule do not benefit consumers and are overly burdensome. The ever-changing, real-time challenges and needs associated with the management of mobile networks preclude the disclosure of information at the high level of granularity required by the enhanced rule. Making matters worse, FCC staff’s *2016 Guidance Public Notice* unlawfully increased mobile broadband providers’ obligations and created additional ambiguities. Ultimately, it is fierce competition in the mobile marketplace – not sweeping, wide-open mandates – that ensures that consumers and edge providers have access to meaningful information. Policymakers should look to the 2010 transparency rule as an appropriately tailored framework to reflect the competitive reality of the mobile broadband marketplace.

Attached to CTIA’s comments is a Declaration by economist Bob Hahn showing that, in addition to *the Title II Order’s* other substantial flaws, it lacked any economic analysis justifying its heavy-handed regulatory approach. And the absence of any such analytical support has had predictable consequences: Since the order’s adoption, communications providers have experienced a significant drop-off in network investment and have faced new risks and uncertainties. These forces have encumbered innovation and slowed advances in consumer welfare. A return to the light-touch framework would produce benefits that would exceed any costs, benefiting consumers and the broadband Internet ecosystem alike.

The Commission should reverse the 2015 majority’s determinations that broadband is a telecommunications service. In the Telecommunications Act of 1996, Congress sought to promote the brave new world of the Internet and the availability of innovative new services outside the regulatory box reserved for monopoly telecommunications services. Before the *Title II Order*, the FCC repeatedly interpreted the Communications Act in a manner consistent with Congressional intent. As the *Notice* appropriately recognizes, the essence of broadband Internet access is the offering of a *capability* to obtain and manipulate the information stored on the millions of interconnected computers that comprise the Internet. And the classification of broadband as an information service is even more accurate today – as the Declaration of

technologist Peter Rysavy shows, far from constituting merely a set of “dumb pipes,” mobile broadband networks are intelligent, innovative, and constantly evolving to meet existing consumer demand and anticipate future advances. Viewed in this context, it is clear that the aggregation of information service elements in broadband Internet access service *is* the product, with transmission constituting only a portion of that service. An offering’s “information service” status is not undercut by the presence of transmission or the fact that a particular capability was not used by a consumer in a given case.

Furthermore, the Commission should rule that mobile broadband Internet access is a private mobile service as defined in the Act. The Commission may only subject mobile broadband services to Title II if those services are commercial mobile services (“CMRS”) or the functional equivalent thereof. Mobile broadband Internet access service is neither. The *Title II Order*, which altered the statutory scheme by upending the definitions of “public switched network” and “interconnected service,” represented a radical and unlawful departure from the statute, the Commission’s rules, and governing precedent. The public switched telephone network and the Internet are distinct networks, and Congress could not have intended the statutory term to include both. Furthermore, the *Title II Order* erred when it claimed that mobile broadband service is interconnected to the public switched network because users may download third-party Voice over Internet Protocol (“VoIP”) applications that allow them to call telephone numbers. Mobile broadband might well facilitate use of VoIP offerings, but the provision of a VoIP offering utilizes (and rides atop) a separate broadband service. It constitutes its own distinct offering.

Nor is mobile broadband the functional equivalent of CMRS. Congress intended the functional equivalence prong of Section 332(d)(3) to cover services that are connected to the public switched telephone network and can be substituted for voice service. Mobile broadband lacks these essential attributes.

Finally, the Commission should state affirmatively that there is no lawful basis for state regulation of broadband Internet access service. There is, and should be, no doubt that broadband Internet access is an inherent interstate and international service offering.

A free and open Internet can thrive without Title II regulation, just as it did for two decades prior to 2015. For the mobile wireless industry, Restoring Internet Freedom is about re-establishing a winning formula for all stakeholders in the mobile broadband ecosystem, one in which the possibility of full utility-style regulation is permanently foreclosed, replaced by a framework that advances consumer interests in openness while promoting innovation, investment, and deployment. To promote the investment and innovation that maintain Internet openness, the Commission should reverse the *Title II Order* and return to the long-standing, bipartisan Title I consensus that for many years enabled a vibrant, competitive mobile wireless market to deliver the services and access consumers demand. And Congress should establish rules to support clear, lasting, and reasonable protections that protect and promote Internet freedom, customer-focused innovation, and network investment.

wireless competition does not merely ensure fundamental Internet openness. It demands that providers innovate ceaselessly, anticipating and accommodating the next “killer app” and offering innovative service options to meet ever-changing customer demands. In applying to broadband Internet access the strictures of public utility regulation and the vague “general conduct standard,” the *Title II Order* badly undermined market-driven efforts to please consumers, trading permission-less innovation for an expansive and costly regulatory regime. The *Title II Order’s* categorical prohibitions do not account for pro-competitive and pro-consumer offerings, truncating still further providers’ abilities to cater to consumers’ desires.

The time has come to correct the errors of the past. The Commission should reverse the 2015 majority’s determinations that mobile broadband is a telecommunications service and a commercial mobile radio service. And to put to rest the uncertainties that have enveloped Internet openness in the last few years, Congress should now step in to confirm that broadband Internet access is an integrated information service and legislate specific, common sense net neutrality rules that advance consumer welfare *and* promote investment and innovation.

II. CTIA SUPPORTS A FREE AND OPEN INTERNET BACKED BY A NEW LEGISLATIVE FRAMEWORK.

Mobile providers are committed to Internet openness. They believe that consumers should be able to access the content, applications, and services they want without interference from broadband providers or, for that matter, any other stakeholders in the Internet ecosystem. These are not mere words. Rather, mobile providers have developed a clear track record reflecting their commitment to customer-driven openness. Mobile broadband providers’ policies and practices ensure that their customers have access to the content, applications, and services of

their choosing, at the terms, conditions, and pricing plans that best meets their needs.⁴ This was true long before 2015, and it has been true since then.

The mobile broadband marketplace is intensely competitive – indeed, nearly all Americans have a choice of at least three providers of wireless voice and 4G LTE today.⁵ Accordingly, providers face the strongest possible incentives to *empower consumers*. Mobile broadband providers’ behavior speaks to this sharp marketplace rivalry and a need to improve networks and service offerings. Consumer behavior, in turn, demonstrates satisfaction with the offerings the marketplace has made available. To take just a few core points:

- **Adoption.** At the end of 2016, there were 395.9 million wireless subscriber connections. And there are increasingly more wireless connections than people in the country—wireless penetration is at 120.6 percent of the American population.
- **Usage.** Americans used 13.72 trillion MB in 2016—35 times more mobile data than in 2010—and data usage is projected to increase five-fold from 2016 to 2021. Mobile video traffic accounted for 64 percent of all mobile data traffic in the U.S. in 2016.

⁴ See, e.g., Tamara Chuang, *Wireless plan confusion? Here’s a Breakdown of the new unlimited data plans, prices*, The Denver Post (Feb. 20, 2017), <http://www.denverpost.com/2017/02/20/wireless-plan-unlimited-data-prices/>; Press Release, U.S. Cellular, *U.S. Cellular Introduces Unlimited Data Offering Among Its New Total Plans With No Hidden Fees* (Feb. 24, 2017), <https://www.uscellular.com/about/press-room/2017/USCELLULAR-INTRODUCES-UNLIMITED-DATA-OFFERING-AMONG-ITS-NEW-TOTAL-PLANS-WITH-NO-HIDDEN-FEES.html>; Chris Welch, *Verizon announces new unlimited data plan*, The Verge (Feb. 12, 2017), <http://www.theverge.com/2017/2/12/14592822/verizon-unlimited-data-plan-announced-2017>; Brian Fung, *AT&T is Cutting the Price of Its Unlimited Data Plans*, Wash. Post (Feb. 23, 2017), https://www.washingtonpost.com/news/the-switch/wp/2017/02/27/att-reveals-even-more-unlimited-data-plans/?utm_term=.b63b6a3d597e; Aaron Pressman, *T-Mobile Just Improved Its Unlimited Data Plan Again*, Fortune (Mar. 9, 2017), <http://fortune.com/2017/-03/09/how-t-mobile-unlimited-data-plan/>; Aaron Pressman, *How to Get Free HBO With AT&T’s Unlimited Mobile Plan*, Fortune (Apr. 5, 2017), <http://fortune.com/2017/04/05/hbo-free-att-mobile/>.

⁵ See Comments of CTIA, WT Docket No. 17-69, at 4 (filed May 8, 2017). See generally *id.*

- **Pricing.** Since 2009, the wireless consumer price index (“CPI”) has fallen by more than 23 percent.⁶ In contrast, the general CPI rose by more than 14 percent over the same time period.
- **Deployment.** 4G LTE service is now available to 99.7 percent of Americans and covers more than 71 percent of the total U.S. land area. That connectivity is facilitated by the 308,334 cell sites that are now deployed throughout the country.

These data points, and other indicia of intense competition, belie the *Title II Order’s* misguided and unproven assumption that mobile broadband providers are Internet “gatekeepers.”⁷ Rather, mobile broadband providers constantly strive to meet consumers’ needs, including Americans’ demand for Internet openness. To maintain and expand their customer bases, therefore, providers work hard to ensure that consumers are not impeded in their efforts to access the content they desire and to know what services they receive. This dynamic market, moreover, drives investment and innovation, leading to next-generation networks, exciting new services, and pioneering plan options.

But a free and open Internet is not synonymous with Title II regulation. While mobile providers strongly support Internet openness, they are not at all bashful in opposing the common carrier framework imposed by the *Title II Order*. As described below, that decision has imposed numerous harms on the Internet ecosystem, stymieing innovation and investment and otherwise undercutting consumer interests. The mobile wireless marketplace exhibits the indicia of fierce competition – including rising output, falling prices, and expanding coverage – but the shackles imposed by the 2015 majority indisputably have chilled innovation and investment, limited the

⁶ Compare U.S. Dep’t of Labor, Bureau of Labor Statistics, Consumer Price Index for All Urban Customers, Table 3 (2009), <https://www.bls.gov/cpi/cpid0903.pdf>, with U.S. Dep’t of Labor, Bureau of Labor Statistics, Consumer Price Index for All Urban Customers, Table 3 (2017), <https://www.bls.gov/news.release/cpi.t03.htm>.

⁷ See, e.g., *Title II Order*, 30 FCC Rcd at 5608 ¶ 20.

options available to mobile customers, and thus diminished consumer welfare. Still worse, the *Title II Order* has harmed consumers absent any countervailing evidence that the strictures it set in place would cure any real-world harm or otherwise improve consumers' lives. Indeed, for more than a decade, proponents of expansive, innovation-killing regulation under the Title II framework have been unable to produce more than a small handful of alleged abuses warranting such action. On examination, virtually all of those anecdotes have turned out to involve foreign ISPs or issues unrelated to net neutrality. In any event, the market and/or technology quickly resolved these matters, further undercutting the basis for the rules desired by those who have cited them.

A free and open Internet can thrive without Title II regulation, just as it did for two decades prior to 2015. In fact, the *Title II Order* undermines consumer interests by deterring innovation and suppressing investments by providers large and small.⁸ As the mobile broadband industry knows too well, the *Title II Order* threatens providers with legal liability for taking actions that advance consumers' interests – even when those actions have been heartily embraced by consumers themselves.

To promote investment and innovation that maintain Internet openness, the Commission should reverse the *Title II Order* and return to the long-standing, bipartisan Title I consensus that for many years enabled a vibrant, competitive mobile wireless market to deliver the services and access consumers demand. Specifically, the Commission should rule that mobile broadband Internet access is an information service and a private, not a commercial, mobile service as defined in the Communications Act. Furthermore, the Commission should state affirmatively

⁸ See Letter from Bluegrass Cellular, Inc. et al., to Marlene H. Dortch, Secretary, FCC, WC Docket 17-108 (dated May 11, 2017).

that there is no lawful basis for state regulation of broadband Internet access service, which is an inherently interstate service, and that state regulation is preempted by federal law, even if it purports to be in furtherance of federal objectives. These actions will ensure that mobile providers can provision customers with the services that they demand and meet the varied needs of a diverse populace. In short, they will help to guarantee that mobile providers – and others – are able to report increased innovation, falling prices, expanded investment, and rising customer satisfaction going forward.

Beyond Commission action overturning the *Title II Order*, Congress has the opportunity to establish a clear legal foundation and rules that both maintain a free and open Internet and promote innovation and investment. While the marketplace will provide robust protections for mobile broadband consumers, absent Congressional action, there is a great risk that a future Commission will seek to re-re-reclassify broadband as a Title II service and thereby re-introduce the uncertainty that slows innovation and investment to the detriment of consumers. Given this threat, only Congress can establish rules to support clear, lasting, and reasonable protections that protect and promote Internet freedom, customer-focused innovation, and network investment.

In the meantime, CTIA commends the Commission for issuing this *Notice* to reestablish a broadband regulatory framework that will help promote billions of dollars of investment, millions of jobs, and future innovation. We firmly believe the Commission and Congress are on track for common sense net neutrality rules that will protect consumers and ensure the U.S. remains the global leader in wireless.

III. THE *TITLE II ORDER* HAS GENERATED UNCERTAINTY AND UNDERMINED CONSUMER INTERESTS.

A. Title II Imposes Significant Burdens on Mobile Broadband Providers.

For the mobile wireless industry, there is no debate over the importance of ensuring that consumers and edge providers enjoy a free and open Internet. The industry unequivocally supports – and works to advance – that goal. Rather, the debate is about re-establishing a winning formula for all stakeholders in the mobile broadband ecosystem, one in which the possibility of full utility-style regulation is permanently foreclosed, replaced by a framework that advances consumer interests in openness while promoting innovation, investment, and deployment.

Some have argued that Title II regulation is innocuous because carriers are not explicitly subject to some of the most intrusive forms of regulation available under Title II, such as *ex ante* rate regulation. But the fact remains that Title II provides the Commission with a vehicle to expand its regulatory oversight of broadband providers at any time. Indeed, despite former FCC Chairman Wheeler’s characterization of the *Title II Order* as effectuating a “modernized” version of Title II, virtually every significant section of the *Title II Order* shows how fleeting that forbearance is.⁹ Time and again, the *Title II Order* emphasizes that it only refrains from taking certain actions “for now” – indeed, there are over forty references in the *Title II Order* to rules not applying “at this time” or promises not to regulate “for now.”¹⁰ And in the period of

⁹ For instance, the Commission retains the authority to regulate *ex post* the “reasonableness” of all rates, terms, and practices of broadband Internet access service providers under Sections 201 and 202, which the *Title II Order* interprets expansively. See, e.g., *Title II Order*, 30 FCC Rcd at 5809-14 ¶¶ 441-452.

¹⁰ See, e.g., *id.* at 5675 ¶ 168 (“We decline *at this time* to require disclosure of the source, location, timing, or duration of network congestion, noting that congestion may originate beyond the broadband provider’s network and the limitations of a broadband provider’s knowledge of

time between the Commission’s adoption of the *Title II Order* and the change in administrations, it became abundantly clear which way the winds were blowing – and how quickly. Ironically, the 2015 majority captured the anachronistic nature of its own actions by fashioning the self-contradictory meme of a “Title II tailored for the 21st Century,”¹¹ which was predictably followed by its demonstrated willingness to impose legacy mandates on broadband Internet access offerings, whether with respect to privacy (where it applied its newfound Title II authority to adopt broadband privacy regulations that were a clear departure from the bi-partisan privacy framework developed over the years by the Federal Trade Commission)¹² or universal service (where it opened the door to imposing contribution obligations on broadband Internet access).¹³

Such a regulatory environment, where today’s hedging language portends tomorrow’s intervention, creates intensive uncertainty that undercuts innovation and harms

some of these performance characteristics.”) (emphasis added); *id.* at 5676 ¶ 168 (“[w]e decline *at this time* to require disclosure of packet corruption or jitter”) (emphasis added); *id.* at 5682 ¶ 183 (“*At this time* we decline to require certification by broadband providers.”) (emphasis added); *id.* at 5687 ¶ 195 (“we conclude that, *at this time*, application of the no-unreasonable interference/disadvantage standard and the prohibitions on blocking, throttling, and paid prioritization to the Internet traffic exchange arrangements is not warranted) (emphasis added); *id.* at 5696 ¶ 208 (“We provide the following examples of services and characteristics of those services that, *at this time*, likely fit within the category of services that are not subject to our conduct-based rules.”) (emphasis added); *id.* at 5825 ¶ 470 (“*for now* we do forbear in part from the application of TRS contribution obligations that otherwise would newly apply to broadband Internet access service”) (emphasis added); *id.* at 5835 ¶ 488 (“*for now* we do forbear in part from the first sentence of section 254(d) and our associated rules insofar as they would immediately require new universal service contributions associated with broadband Internet access service”) (emphasis added).

¹¹ *Id.* at 5612 ¶ 38.

¹² See *Protecting the Privacy of Customers of Broadband and Other Telecommunications Services*, Report and Order, 31 FCC Rcd 13911 (2016).

¹³ See *Title II Order*, 30 FCC Rcd at 5836 n.1471. See also *id.* 5835 ¶ 488 (noting that Title II “authorizes the Commission to impose universal service contribution requirements on telecommunications carriers—and, indeed, goes even further to require ‘[e]very telecommunications carrier that provides interstate telecommunications services’ to contribute.”).

consumers. Mobile broadband providers need to know that they can innovate, invest, and operate their networks in a manner that will help them attract and retain customers, without the constant regulatory overhang that invites others to second-guess their decisions or micromanage their businesses, even when those others promise not to do so “at this time” or “for now.”

B. The *Title II Order’s* General Conduct Standard Has Hindered Innovation and Harmed Consumers.

The general conduct standard injects unnecessary uncertainty into the market, impeding innovation and investment alike, to the detriment of all – especially consumers. The conduct standard – which bars unreasonable interference or unreasonable disadvantage to consumers or edge providers – is so expansive and vague that it is impossible to articulate its boundaries. The uncertainty surrounding the rule is perhaps best illustrated by then-Chairman Wheeler’s statements that “we don’t really know” what behavior would be prohibited by the general conduct standard, but that “the FCC will sit there as a referee able to throw the flag.”¹⁴

The innovation-dampening uncertainty imposed by Title II and the general conduct standard is most clearly exemplified by the debate over one of mobile broadband providers’ most innovative products over the past several years: free data (also known as “zero rating” or “sponsored data”). Free data is traffic from certain content providers that does not count against a subscriber’s data cap. Free data offerings were very much a part of the massive record the Commission compiled in the lead-up to the *Title II Order*. Several CTIA members had introduced versions of these offerings before comments were filed, and commenters debated in

¹⁴ FCC, February 2015 Open Commission Meeting, Chairman Tom Wheeler, Press Conference, at 166.17, 166:39–166.52 (Feb. 26, 2015), <https://www.fcc.gov/newsevents/-events/2015/02/-february-2015-open-commission-meeting>.

detail the merits of zero-rating practices.¹⁵ Yet notwithstanding the record compiled, the Commission included only two paragraphs on free data among the hundreds of pages of discussion in the *Title II Order*,¹⁶ offering no real guidance as to what actions might spark regulatory intervention. It concluded only that the Commission would “take action as necessary.”¹⁷

One could understand, then, mobile providers’ whiplash when, over the course of a single year, then-Chairman Wheeler first deemed one carriers’ free data product “[c]learly ... highly innovative and highly competitive,”¹⁸ then launched a year-long investigation into that offering and three other popular free data offerings on the basis of the general conduct standard. The end product of that investigation – a January 2017 report (“Report”) issued by the Wireless Telecommunications Bureau (“WTB”) in the last days of the Wheeler FCC¹⁹ – justified mobile broadband providers’ fears. The Report focused on just *one* of the seven non-exhaustive factors that the 2015 majority had adopted for application of the general conduct standard,²⁰ and then set forth *sixteen* “overall considerations” to “assist providers, the public, and the Commission” in analyzing claims that a given free data plan violates the *Title II Order*.²¹ While WTB claimed

¹⁵ See *Title II Order*, 30 FCC Rcd at 5666-68 ¶¶ 151-152 and comments cited therein.

¹⁶ *Id.*

¹⁷ *Id.* at 5668 ¶ 152.

¹⁸ See, e.g., John Eggerton, *Wheeler: Binge On Is Pro-Competitive, Pro-Innovation*, Broadcasting & Cable (Nov. 19, 2015), <http://www.broadcastingcable.com/news/washington/-wheeler-binge-pro-competitive-pro-innovation/145940> (reporting the quote).

¹⁹ FCC, Wireless Telecommunication Bureau Report, *Policy Review of Mobile Broadband Operators’ Sponsored Data Offerings for Zero Rated Content and Services* (Jan. 11, 2017) (“WTB Report”), http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0111/DOC-342987A1.pdf.

²⁰ *Id.* at 10.

²¹ *Id.* at 4-5.

that this sixteen-factor framework was “not intend[ed] to suggest any departure from the Commission’s approach of ‘permission-less innovation’ in broadband offerings,”²² the Report – if allowed to stand – would have left that approach in tatters. It communicated to mobile broadband providers that even clearly consumer-friendly plans and practices could be subject to arbitrary, time- and resource-consuming investigations, and ultimately be found unlawful.

Still worse, the Report confirmed that the general conduct standard could result in a violation even in the absence of any evidence that consumers or competition had suffered any harm.²³ While the Report purported to include “findings” that two free data plans “present significant risks to consumers and competition” in downstream markets,²⁴ it contained no demonstration of marketplace harm. As Georgetown’s Anna-Maria Kovacs summarized:

The report offers no evidence that any of the current sponsored data plans cause any harm to competitors. Indeed, the report offers no data or evidence at all, an absence that is remarkable for an agency that claims to be data-driven. The report raises hypothetical concerns about ways in which sponsored data plans might be used in an anti-competitive way. The report speculates, but provides no indication of actual harm.²⁵

WTB’s Free Data investigation also flew in the face of evidence demonstrating that Americans overwhelmingly support zero-rating and sponsored data plans. Indeed, a survey commissioned by CTIA found that 77 percent of millennials said they were more likely to enroll with a new

²² *Id.* at 4.

²³ Because it is virtually impossible to argue that giving customers a service for free somehow harms the customers, opponents of free data have focused instead on alleged (but always elusive) harms to downstream markets.

²⁴ *Id.* at 1.

²⁵ Anna-Maria Kovacs, *Op-Ed: What the FCC Missed in its Zero Rating Report*, *Wireless Week* (Jan. 16, 2017), <https://www.wirelessweek.com/article/2017/01/op-ed-what-fcc-missed-its-zero-rating-report>.

wireless service provider that offered free data.²⁶ The investigation also ignored evidence that such plans further *enhance* competition in a market that was already intensely competitive.²⁷

Fortunately, this saga came to an end when, following the 2017 change in FCC leadership, the WTB promptly rescinded the Report.²⁸ However, this rescission only came after wireless providers, their content partners, and consumers were treated to a confusing, burdensome and contradictory regulatory odyssey commencing with the FCC chairman proclaiming free data plans to be pro-innovation and pro-consumer, followed fourteen months later with a FCC report concluding that such plans present significant risks to consumers and competition, followed one month later by the new FCC chairman rescinding that very same report and declaring that the FCC will not, in fact, seek to deny Americans free data. Moreover, it did nothing to alleviate concerns that a future Commission might be willing to re-invoke the same general conduct standard, still on the books, to invalidate such offerings – or other next-generation services that cannot be imagined today – based on *ad hoc* criteria applied without factual substantiation.

²⁶ CTIA, *New Survey Shows Overwhelming Majority of Wireless Consumers Want Free Data Services* (Apr. 7, 2016), <https://www.ctia.org/industry-data/press-releases-details/press-releases/new-survey-shows-overwhelming-majority-of-wireless-consumers-want-free-data-services> (also noting that “[r]esults show free data services boost mobile broadband use, increase competition and benefit new services”).

²⁷ See, e.g., Letter from Roslyn Layton, PhD Fellow, Center for Communications, Media, and Information Technologies, to Frode Sørensen & Ben Wallis, Co-Chairs, Net Neutrality Expert Working Group, Body of European Regulators for Electronic Communications, EU 2011-2016 (July 26, 2016), <http://roslynlayton.com/wp-content/uploads/2016/07/Academic-evidence-for-outcomes-on-zero-rating-and-net-neutrality-policy-for-EU-2011-2016.-Special-letter-for-BEREC.pdf> (“[T]here is no evidence that zero rating harms consumers or competition. To the contrary, my research shows that permitting zero rating is beneficial to both consumers and competition.”).

²⁸ *Wireless Telecommunications Bureau Report: Policy Review of Mobile Broadband Operators’ Sponsored Data Offerings for Zero Rated Content and Services*, Order, 32 FCC Rcd 1093 (WTB 2017).

The free data investigation shows how the Title II approach and general conduct rule stand in the way of innovation and investment. It goes without saying that the kind of uncertainty that stems from prolonged investigations quashes innovation and deters the offering of new, consumer-friendly service offerings.²⁹ Mobile broadband providers compete aggressively, in part by frequently introducing new, welfare-enhancing plans to attract and retain customers. When providers are left to guess as to whether a new offering will come under attack and be subjected to extended government review, with the possibility of substantial penalties in the event the agency ultimately finds a practice unlawful, the risks posed by innovation can outweigh even the significant benefits of offering new consumer-friendly functions and service plans.³⁰ This result harms all players in the marketplace – including ISPs and content providers, which might otherwise have sought to partner in innovative free data services, and consumers

²⁹ While it is true that the *Title II Order* included a mechanism for providers to seek an advisory opinion from the Enforcement Bureau for prospective conduct, *see* 47 C.F.R. § 8.18, the delays, advanced public disclosure, and other flaws associated with this process represent a wholly unrealistic approach to spurring innovation. Indeed, given the inadequacy of the Enforcement Bureau process to keep pace with competition in the wireless market, it is no surprise that not a single provider has sought an advisory opinion while the current regime has been in place. *See Notice*, 32 FCC Rcd at 4493 n.10 (Statement of Chairman Ajit Pai) (“[S]eeking the government’s blessing in advance is precisely the opposite of permission-less innovation.”).

³⁰ *See, e.g., Common Carrier Regulation of the Internet: Investment Impact, Hearing Before the H. Subcomm. on Commc’ns and Tech.*, 114th Cong. (Oct. 27, 2015) (written testimony of Raymond James Managing Director – Equity Research Frank Louthan), <http://docs.house.gov/meetings/IF/IF16/20151027/104110/HHRG-114-IF16-Wstate-LouthanF-20151027-U1.pdf> (“[T]he Title II impact on wireless carriers is highly likely to infuse doubt as to where the industry will be able to invest to get any returns, and risks the U.S. wireless industry’s leadership globally. ... [W]ithout adequate returns on investment, the wireless carriers are unlikely to increase their spending, and could see it decline.”). This prediction has been borne out by the fact that wireless capital investment fell from 18 percent of wireless revenues in 2013 to 14 percent by 2016 – accompanied by a per-subscriber capex drop of 32 percent. *See* Anna-Maria Kovacs, *Has Title II Regulation Stifled Wireless Investment? Here’s What the Numbers Say*, *Wireless Week* (June 15, 2017), <https://www.wirelessweek.com/article-/2017/06/has-title-ii-regulation-stifled-wireless-investment-heres-what-number-say> (citing underlying CTIA data).

who are denied the benefit of innovative offerings due to the uncertainty created by the general conduct standard.

C. The *Title II Order's* Refusal to Account for Consumer Preferences in its Categorical Prohibitions Threatens the Evolution of Mobile Wireless Services.

Mobile broadband providers will best be able to serve their customers if they have flexibility to experiment with new service offerings and new business arrangements.

Unfortunately, at a time when the ecosystem should be embracing experimentation, innovation and investment, the *Title II Order* restrains the ability of mobile broadband providers to support consumer-friendly applications or manage their networks by imposing categorical restrictions that undermine innovative broadband offerings that benefit consumers.

For example, the unqualified paid prioritization ban adopted in the *Title II Order* prohibits broadband Internet access services that involve commercial arrangements for Quality of Service (“QoS”) enhancements with edge providers or affiliates, with the possibility of waivers “only in exceptional cases.”³¹ Particularly in the mobile wireless market, this categorical rule may undermine future broadband offerings that enhance consumer welfare.

The ban on paid prioritization for broadband Internet access service is based on a flawed premise. The *Title II Order* was plain wrong in finding that “permitting paid prioritization will result in the bifurcating of the Internet into a ‘fast lane’ for those willing and able to pay and a

³¹ See *Title II Order*, 30 FCC Rcd at 5653 ¶ 125, 5658 ¶ 132. The *Title II Order's* statement that the Commission would entertain waiver requests to the paid prioritization ban “under exceptional circumstances” created an obvious deterrent effect. *Id.* at 5657 ¶ 129. Just as the Enforcement Bureau advisory opinion process fails to account for the pace of innovation in the fast-moving wireless marketplace, a waiver process is not an effective review mechanism for new business models.

‘slow lane’ for everyone else.”³² The fast lane/slow lane analogy is inapt, for reasons articulated by the Broadband Internet Technical Advisory Group (“BITAG”):

When differentiated treatment of traffic is applied with an awareness of the requirements for different types of traffic, it becomes possible to create a benefit without an offsetting loss. For example, some differentiation techniques improve the performance of quality of experience (QoE) for particular applications or classes of applications without negatively impacting the QoE for other applications or classes of applications.³³

Further, paid prioritization in and of itself is not anti-competitive or anti-consumer. As Judge Williams explained in reviewing the *Title II Order*, “it is hard to see how coach passengers or senders of ordinary mail are injured by the availability of speedier, costlier service.”³⁴ The *Title II Order* appeared to implicitly recognize this point, but its solution is clunky at best. In discussing the ban on paid prioritization, the order acknowledged the welfare-enhancing benefits of new low-bandwidth, low-latency telemedicine applications and offered that telemedicine providers could structure their offerings as “non-BIAS data services” not subject to the Open Internet rules.³⁵ But whereas this approach might exempt specific applications that the Commission can identify in advance as requiring QoS enhancement, it imposes severe limits and burdens on *emerging* QoS-enabled Internet access applications, which will be subject at best to grave uncertainty and at worst an outright ban on needed prioritization. As the Progressive Policy Institute estimated, if the paid prioritization ban “reduces the number of telemedicine

³² *Id.* at 5653 ¶ 126.

³³ Broadband Internet Technical Advisory Group, *Differentiated Treatment of Internet Traffic: A Uniform Agreement Report*, at iii (Oct. 2015), [http://bitag.org/documents/BITAG - Differentiated Treatment of Internet Traffic.pdf](http://bitag.org/documents/BITAG_-_Differentiated_Treatment_of_Internet_Traffic.pdf).

³⁴ *United States Telecom Association v. FCC*, 825 F.3d 674, 763 (D.C. Cir. 2016) (Williams, J., Dissent).

³⁵ *Title II Order*, 30 FCC Rcd at 5658 ¶ 132 n.315.

transactions by just five percent relative to its unconstrained levels, the cost to the U.S. economy could be nearly \$100 million per year by 2019 in lost output, before considering any multiplier effects.”³⁶ The chilling effect imposed by the paid prioritization ban undermines yet-to-be developed services that can benefit consumers and the economy at large with no countervailing negative effects. Policymakers should ensure that any rules applied to the dynamic broadband sector do not prohibit or deter such welfare-enhancing arrangements.

Moreover, the narrow flexibility that the *Title II Order* provides under several of its bright line rules for “reasonable network management” undermines a provider’s ability to evolve and manage its network for the betterment of the entire subscriber base. Mobile broadband networks are highly dynamic, with constant changes in network standards, technology, and capacity needs. In this environment, network management decisions are influenced by a mix of technical and business considerations. Nevertheless, the *Title II Order* redefined a “network management practice” as one “that has a primarily technical network management justification, but does not include other business practices.”³⁷ In other words, the order appears to hinder business models that allow mobile operators to optimize their networks in response to consumers’ choices, and could even bar any practice that affects the provider’s costs or revenues (a category that sweeps in any decision a company could make). This categorical bar does not serve consumer interests.

For these reasons, the Commission is right to ask whether categorical rules harm the public interest. This inquiry is especially important given the advent of 5G, a network platform

³⁶ Hal Singer, *Three Ways The FCC’s Open Internet Order Will Harm Innovation*, at 6, Progressive Policy Institute (May 2015), http://www.progressivepolicy.org/wp-content/uploads/2015/05/2015.05-Singer_Three-Ways-the-FCCs-Open-Internet-Order-Will-Harm-Innovation.pdf.

³⁷ *Title II Order*, 30 FCC Rcd at 5700 ¶ 215.

that supports a variety of services including mobile broadband Internet access. In particular, the high speed and low latency promised by 5G will improve throughput and responsiveness of wireless networks and devices, creating new use cases across multiple sectors of the economy. The ultra-fast and low-latency communications enabled by 5G will create opportunities to optimize the performance of applications, and 5G is expected to be a boon for mHealth, the Internet of Things, first responders, augmented and virtual reality, and more.³⁸ One capability of the 5G architecture that holds tremendous promise is network slicing. As technologist Peter Rysavy, a leading engineer on the capabilities and evolution of wireless technologies, explains in his Declaration:

Network slicing, implemented through virtualization, will allow an operator to provide different services with different performance characteristics to address specific use cases. Each network slice operates as an independent, virtualized version of the network. Critical health-care monitoring is an example of a use-case that could benefit from prioritization, in order to address issues such as a congested cell causing communications protocols to time out. Video teleconferencing is another. 5G QoS management in general, and network slicing in particular, will enable thousands of new types of applications, facilitating entirely new businesses that use wireless connections.³⁹

To the extent 5G solutions are integrated into broadband internet access offerings, they will only be able to reach their full potential in a regulatory environment that embraces the ability of mobile broadband providers to support real-time applications through differentiated service offerings. A more refined and flexible approach that allows market choices to proliferate would better maximize the value of broadband service to consumers.

³⁸ See Peter Rysavy, *Declaration Regarding Restoring Internet Freedom* ¶ 42 (July 14, 2017) (“Rysavy Decl.”) (attached hereto as Exhibit A).

³⁹ *Id.* ¶ 43.

D. The *Title II Order's* “Enhancements” to the Transparency Rule Do Not Benefit Consumers and are Overly Burdensome.

The *Title II Order* substantially expanded the existing transparency rule, despite the fact that there was no evidence that the original 2010 transparency rule had failed to serve the interests of mobile broadband consumers or edge providers. While consumers were well-served under the previous framework, the new rule obscures useful information set forth in the 2010 version and imposes unnecessary burdens.

Consumers demand transparency that is meaningful and helpful, but the 2015 “enhancements” are anything but. First, it is noteworthy that the Obama-led Office of Management and Budget (“OMB”) took the unusual step of limiting the mobile broadband disclosure information collections to two years, made substantive changes (rejecting packet loss as a performance metric and the mobile Measuring Broadband America (“MMBA”) program as a “safe harbor”), and set forth a laundry list of conditions that the Commission must satisfy for any future OMB renewal.⁴⁰ These terms of clearance for any future renewal reach nearly every aspect of the 2015 enhanced transparency rule, underscoring that even the Obama OMB questioned whether the “enhancements” would improve consumer welfare.⁴¹

The ever-changing, real-time challenges and needs associated with the management of mobile networks preclude the disclosure of information at the high level of granularity that the

⁴⁰ See OMB, *Notice of Office of Management and Budget Action*, OMB Control No. 3060-1220 (Dec. 15, 2016), <https://www.reginfo.gov/public/do/DownloadNOA?requestID=279440>.

⁴¹ In particular, OMB required the Commission to: (1) refine its current mobile disclosure requirements based on the results published in the Commission’s MMBA report; (2) provide a report to OMB that evaluates the utility and effectiveness of the mobile broadband disclosures; (3) assess whether CMAs are the appropriate geographic measurement unit for disclosing actual network performance, or whether other options (including voluntary consensus standards) are a viable alternative; (4) assess standards for reported peak usage data; and (5) assess the utility of packet loss as it relates to mobile broadband disclosures. *Id.*

enhanced rule mandates. For example, network disclosures must now include practices that are applied to traffic associated with a particular user or user group, including any application-agnostic degradation of service to a particular end user.⁴² Furthermore, disclosures of user-based or application-based practices must include the purpose of the practice, the types of traffic that are subject to the practice, and the practice’s likely effects on end users’ experiences.⁴³ But mobile providers require tremendous flexibility to manage their networks, and enhanced disclosures that require detailed reporting on each and every network management tool that might be used at any point serve no purpose, in the sense that most consumers have no basis or reason to understand what these disclosures mean.

Making matters worse, FCC staff’s *2016 Guidance Public Notice* unlawfully increased mobile broadband providers’ obligations and created additional ambiguities.⁴⁴ The clearest example of this is the standard for providing disclosures about network performance on a Cellular Market Area (“CMA”) basis,⁴⁵ a metric that consumers have no reason and no basis to understand.⁴⁶ Consumers have no idea what CMAs are, nor should they because they do not

⁴² *Title II Order*, 30 FCC Rcd at 5676 ¶ 169.

⁴³ *Id.*

⁴⁴ *See Guidance on Open Internet Transparency Rule Requirements*, Public Notice, 31 FCC Rcd 5330 (2016) (“*2016 Guidance Public Notice*”).

⁴⁵ *Id.* at 5334-35.

⁴⁶ In the *2016 Guidance Public Notice*, FCC staff also appeared to alter broadband providers’ point of sale obligations by requiring that consumers “actually receive” disclosures, without articulating what that would mean. *Id.* at 5337. On June 20, 2016, CTIA and the Competitive Carriers Association (“CCA”) each filed Applications for Review of the *2016 Guidance Public Notice*, asserting, *inter alia*, that FCC staff imposed the CMA reporting and point of sale obligations without any notice or opportunity for public comment. *See* Application for Review of CTIA, GN Docket No. 14-28, (filed June 20, 2016); Application for Review of Competitive Carriers Association, GN Docket No. 14-28 (filed June 20, 2016). Furthermore, on January 13, 2017, CTIA and CCA moved to stay the effective date for mobile broadband providers to

purchase service by CMA, yet the enhanced transparency framework demands that providers identify actual and expected speeds in “their” CMA. Further, this requirement is unclear in the context of mobile services because consumers utilize service across multiple geographic areas, and may not know what CMA they are in. Thus, the new enhancements have the effect of obscuring other, more useful information and do not assist consumers comparing the performance of competing networks.

Ultimately, it is fierce competition in the mobile marketplace – not sweeping, wide-open mandates – that ensures that consumers and edge providers have access to meaningful information. This includes information regarding speeds (taking into account the inherent variability of mobile service), prices, network management practices, and data caps (where applicable). Mobile broadband providers have every reason to provide this information to consumers, edge providers, and others in the Internet ecosystem to ensure that their subscribers will have an optimal mobile broadband experience. For example, after the 2010 transparency rule went into effect, mobile providers also voluntarily adopted a best practice of notifying customers on wireless plans with data allowances when they approach and exceed their allowance for data usage and will incur overage charges, without charge and without requiring sign-up to receive the notification.⁴⁷ It is what their consumers demand, and providers that do not adequately provide disclosures, metrics, and tools for their customers will see them go

comply with the enhanced transparency rule based on the pending Applications for Review and OMB’s approval. *See* Joint Motion for Administrative Stay of CTIA and Competitive Carriers Association, GN Docket No. 14-28 (filed Jan. 13, 2017).

⁴⁷ This best practice is included in CTIA’s Consumer Code for Wireless Service, to which all major U.S. wireless providers are signatories. The Code also specifies that wireless providers should clearly and conspicuously disclose tools or services that enable consumers to track, monitor, and set limits on data usage. CTIA, *Consumer Code for Wireless Service*, <https://www.ctia.org/initiatives/voluntary-guidelines/consumer-code-for-wireless-service> (last visited July 14, 2017).

elsewhere. Furthermore, mobile providers are engaged with edge providers to ensure that innovative apps can successfully ride on today's – and tomorrow's – wireless broadband networks.

Accordingly, policymakers should look to the 2010 transparency rule as an appropriately tailored framework to reflect the competitive reality of the mobile broadband marketplace. That approach amounts to a reasonable and useful level of transparency and satisfies the needs of consumers and edge providers alike. It strikes the appropriate balance between consumers' need for information that benefits them and mobile providers' need for flexibility.

IV. THE *TITLE II ORDER* LACKED ANY SOUND ECONOMIC BASIS.

In addition to its other substantial flaws, the *Title II Order* lacked any economic analysis justifying its heavy-handed regulatory approach. The absence of any such analytical support has had predictable consequences: Since the order's adoption, communications providers have experienced a significant drop-off in network investment and have faced new risks and uncertainties. These forces have encumbered innovation and slowed advances in consumer welfare. A return to the light-touch framework contemplated by the *Notice* would produce benefits that would likely exceed any costs, benefiting consumers and the broadband Internet ecosystem alike.

A. The *Title II Order* Applied Heavy-Handed Regulation Where Sound Economic Principles Call for Light Touch Regulation.

As economist Robert Hahn explains in the attached Declaration,⁴⁸ the 2015 majority opted for an intrusive, heavy-handed regime that was not – and is not – warranted in the context

⁴⁸ See Robert Hahn, *How Economics Can Inform Telecommunications Policy: The FCC's Proposed Action on Restoring Internet Freedom* (July 14, 2017) ("Hahn Decl.") (attached hereto as Exhibit B).

of the broadband Internet access marketplace. Heavy-handed regulation typically includes some combination of rigid *ex ante* prohibitions and vague, open-ended *ex post* rules.⁴⁹ This type of regime tends to impose “limitations that are unrelated to economic efficiency” and to rely on “standards for intervention that give the regulator a very wide range of discretion without a basis for being held accountable for its decision.”⁵⁰ Accordingly, heavy-handed regulation permits the “creation of rules or standards” that are “likely to suppress innovation and investment that would be good for the long-run consumer welfare.”⁵¹ As detailed above, the *Title II Order* incorporated all of these flaws: It bans or limits behavior that could well improve consumer welfare,⁵² and applies an incurably vague general conduct standard that inhibits innovation and investment by dividing an ISP’s possible actions into two classes: Those that *are already* unlawful, and those that *might later* be deemed unlawful.⁵³

As Dr. Hahn notes, heavy-handed regulation is only appropriate where each of three criteria is met: “(1) there should be clear evidence of market failure; (2) there should be clear evidence that the proposed intervention is likely to improve upon the status quo; and (3) prior to the intervention, a careful accounting of costs and benefits should be undertaken.”⁵⁴ In the case of the *Title II Order*, none of these threshold requirements were satisfied. First, as many commenters, including CTIA, emphasized, the broadband marketplace – and the mobile

⁴⁹ See, e.g., *id.* ¶ 28 (criticizing a “heavy-handed approach to regulation that relies on *ex ante* intervention and/or vague orders”).

⁵⁰ *Id.* ¶ 13.

⁵¹ *Id.*

⁵² See *id.* ¶ 16 (addressing economic consequences of the *Title II Order*’s bright-line rules).

⁵³ See *id.* ¶ 15 (addressing general conduct standard).

⁵⁴ *Id.* ¶ 18.

broadband marketplace in particular – are (and were in 2015) extremely competitive.⁵⁵ Dr. Hahn agrees: “From an economic perspective, direct evidence of a market failure typically could include: (1) evidence that output is significantly above (or below) socially optimal levels, or (2) evidence that prices are significantly above (or below) appropriate measures of costs. Empirical evidence indicates that the market for the provision of broadband Internet access services in the U.S. is performing well...”⁵⁶

Second, the *Title II Order*’s heavy-handed approach was not likely to improve upon the status quo. As Hahn describes, limited regulatory intervention is likely to produce much greater benefits than intrusive intervention in dynamic industries characterized by fast-paced technological change:

Research has shown that moving from heavy-handed regulation to a light-touch approach in dynamic markets has often resulted in positive welfare effects. A 2002 article in the *Review of Economics and Statistics* by James Prieger compared the rate at which new telecommunications services were introduced by firms during periods of heavy regulation with the rate at which new services were introduced when the FCC experimented with lighter regulation. The study concluded that “the number of services the firms created during the period with lighter regulation is 60%-99% higher than the model predicts they would have been if the stricter regulation had still been in place.”⁵⁷

Likewise, in the period following enactment of the Telecommunications Act of 1996, the heavily regulated incumbent telcos experienced lower levels of investment than did cable providers that

⁵⁵ See, e.g., Reply Comments of CTIA – The Wireless Association, GN Docket Nos. 14-28 & 10-127, at 2, 4, 14-18 (filed Sept. 15, 2014); Reply Comments of Ericsson, GN Docket No. 14-28, at i, 3-5 (filed Sept. 15, 2014); Comments of Roslyn Layton, GN Docket No. 14-28, at 12-20 (filed Sept. 15, 2014); Comments of Verizon and Verizon Wireless, GN Docket Nos. 10-127 & 14-28, at 41-42 (filed July 15, 2014).

⁵⁶ Hahn Decl. ¶ 20; see also *id.* ¶ 23 (discussing prices), ¶¶ 21-22 (discussing output).

⁵⁷ *Id.* ¶ 29 (quoting James E. Prieger, *Regulation, Innovation, and the Introduction of New Telecommunications Services*, 84 THE REV. OF ECON. & STATS. 704-715 (Nov. 2002)).

were subject to a much less intrusive regime.⁵⁸ And a study by Christopher Yoo found that, in the period from 2011 to 2012, U.S. providers subject to light-touch regulation outperformed their more heavily regulated European counterparts with respect to “(1) the percentage of households with access to high-speed (25 Mbps) networks, (2) Fiber and LTE deployment, (3) broadband investment per household (\$562 per household in the U.S. versus \$244 per household in Europe), and (4) download speeds during peak hours as a percentage of advertised speeds.”⁵⁹ The marketplace for broadband Internet access – and, in particular, for mobile broadband Internet access – is even more dynamic than the communications markets of the past, with each successive generation of technology quickly overtaking the last, and thus calls out even more for light-touch regulation.⁶⁰

Third, the *Title II Order* did not result from any kind of cost-benefit analysis – rather, it eschewed such analysis and disregarded evidence regarding its likely consequences. As Hahn explains, the 2015 majority relied on a study that failed to consider the relative performance of Title II services and non-Title II services during the period being evaluated, and neglected to control for “the myriad factors driving ILEC investment in the late 1990s, including the dot.com boom.”⁶¹ Upon departing from the agency, Dr. Timothy Brennan, the Commission’s Chief Economist when the *Title II Order* was released, referred to the item as an “economics-free

⁵⁸ See *id.* ¶ 30.

⁵⁹ See *id.* ¶ 31 (quoting Christopher Yoo, *U.S. vs. European Broadband Deployment: What Do the Data Say?*, University of Pennsylvania Law School, Center for Technology, Innovation and Competition (June 2014)).

⁶⁰ See *id.* ¶¶ 26-27.

⁶¹ *Id.* ¶ 35.

zone”]; he later elaborated by labeling the economic analysis supporting the decision “wrong, unsupported, and irrelevant.”⁶²

B. Heavy-Handed Title II Regulation Has Imposed Significant Costs that Vastly Exceed Any Benefits.

The harms arising from heavy-handed regulation of a competitive and dynamic industry are not at all speculative or hypothetical. Rather, as Dr. Hahn explains, “[e]conomists have shown that, following the FCC’s adoption of the *Title II Order*, capital expenditures by ISPs fell relative to investment trends that prevailed under lighter regulation.”⁶³ As economists analyzing CTIA’s data have shown, for wireless networks, capital investment per subscriber fell from \$92.28 per year in 2014 to \$68.12 in 2016 – ultimately resulting in a three-year per-subscriber capex decline of 33 percent.⁶⁴

Others have made similar findings. A study conducted by Dr. Hal Singer compared capital expenditures by major ISPs in the first half of 2014 to capital expenditures in the first half of 2015.⁶⁵ During that time, average capital expenditures by wireline ISPs declined by 12 percent,⁶⁶ and combined wireline/wireless ISP capital expenditures fell 8 percent.⁶⁷ On net,

⁶² Tim Brennan, *Is the Open Internet Order an “Economics-Free Zone”?*, at 2, Free State Foundation (June 28, 2016), http://www.freestatefoundation.org/images/Is_the_Open_Internet_Order_an_Economics_Free_Zone_062816.pdf.

⁶³ Hahn Decl. ¶ 41.

⁶⁴ Anna-Maria Kovacs, *The Effect of Title II Classification on Wireless Investment*, Georgetown Center for Bus. and Pub. Policy (July 2017), <http://cbpp.georgetown.edu/sites/cbpp.georgetown.edu/files/Kovacs%20-%20Title%20II%20and%20wireless%20investment.pdf> (also noting that total annual broadband service provider capex declined from 2014-2016 by \$6.7 billion).

⁶⁵ See Hal Singer, *Does the Tumble In Broadband Investment Spell Doom For The FCC’s Open Internet Order*, Forbes (Aug. 25, 2015) (“Singer Aug. 2015”), <https://www.forbes.com/sites/halsinger/2015/08/25/-does-the-tumble-in-broadband-investment-spell-doom-for-the-fccs-open-internet-order/#2a79-a0f41ef5>.

⁶⁶ See *id.*

capital expenditures by the six largest broadband providers fell by over \$3 billion.⁶⁸ Singer considered factors other than the *Title II Order* that might have been responsible for falling capital expenditures, but found that, if anything, these factors should have encouraged ISPs to *increase* their capital expenditures.⁶⁹ Moreover, when Singer updated his study to address capital expenditures from 2016, he found that eight of the twelve ISPs examined experienced a decline in domestic broadband capital expenditures from 2014 to 2016.⁷⁰ The average decline across all firms over this extended sample period was 5.6 percent, with total capital expenditures falling by \$3.6 billion.⁷¹ Whether or not the *Title II Order* is the *only* factor driving this decline, it is at the very least a substantial factor, and must be accounted for.

Falling broadband investment figures equate to lost jobs. According to Singer, “every million-dollar increase in broadband capex in a given year generates almost 20 jobs through the multiplier effect,” such that \$1 billion capital investment reduction would “wipe out 20,000 jobs.”⁷² Thus, the \$3.6 billion decrease in capex reported between 2014 and 2016 could well have been responsible for 70,000 or more job losses in the broadband sector alone – not to mention the jobs that might have been created as a result of foregone broadband deployments.⁷³

⁶⁷ *See id.*

⁶⁸ *See id.*

⁶⁹ *See id.*

⁷⁰ *See* Hal Singer, *2016 Broadband Capex Survey: Tracking Investment in the Title II Era*, HalSinger.Wordpress.com (Mar. 1, 2017), <https://haljsinger.wordpress.com/2017/03/01/2016-broadband-capex-survey-tracking-investment-in-the-title-ii-era/>.

⁷¹ *Id.*

⁷² Singer Aug. 2015, *supra* note 67.

⁷³ Dr. George Ford, of the Phoenix Center for Advanced Legal and Economic Public Policy Studies, found that, between 2011 and 2015, the United States lost between \$150 and \$200 billion in investment as a result of threatened or actual treatment of broadband Internet access as a Title II service. George S. Ford, *Net Neutrality, Reclassification and Investment: A*

Of course, the *Title II Order* has visited additional harms on consumers and the ecosystem. As described in detail above, both *Title II* itself and the general conduct standard have significantly deterred consumer-friendly innovation. The Commission’s year-long investigation of free data programs – programs that reduced consumers’ costs and *expanded* their access to the content they desired – showed that even aggressively pro-consumer offerings can be subjected to burdensome review, and even found to violate the law.

Earlier this year, seven small mobile broadband providers told the Commission, “[t]he uncertainty surrounding the Title II regulatory framework for wireless broadband services hinders our ability to meet our customer’s needs, burdens our companies with unnecessary and costly obligations and inhibits our ability to build and operate networks in rural America.”⁷⁴ Regulatory overhang of this sort has harmed consumers and providers alike, and is likely to impede the development of newer and more appealing offerings going forward. Likewise, the bright-line prohibition against paid prioritization may preclude a wide swath of potential business models, many of which could *expand* overall consumer welfare.⁷⁵

A return to the “information service” approach that governed for decades before 2015 would thus generate substantial benefits. Among these would be the lifting of regulatory burdens and uncertainty that contributed to the loss of billions of dollars in investment in the *Title II Order*’s wake, and the jobs and secondary benefits that would flow from expanded network deployments. The shift would also open the floodgates for expanded innovation in the

Counterfactual Analysis, Phoenix Center for Advanced Legal & Economic Public Policy Studies (Apr. 25, 2017), <http://www.phoenix-center.org/perspectives/Perspective17-02Final.pdf>.

⁷⁴ Letter from Ron Smith et al., President and CEO, Bluegrass Cellular, to Marlene Dortch, Secretary, FCC, WC Docket No. 17-108 (filed May 11, 2017).

⁷⁵ See Hahn Decl. ¶ 15.

broadband Internet access ecosystem, removing the ever-present threat that the Commission might deem a particular behavior unlawful under the general conduct standard. In contrast, the costs of returning to a Title I framework would be minimal and almost entirely hypothetical. In short, as Dr. Hahn writes, “light-touch regulation reduces the costs borne by ISPs resulting from regulatory uncertainty, and is likely to enhance welfare by increasing innovation and investment by ISPs.”⁷⁶

V. BROADBAND INTERNET ACCESS IS AN INTEGRATED INFORMATION SERVICE.

The Commission should restore broadband Internet access’s proper classification as an integrated information service. This approach facilitated the Internet’s unprecedented growth over the past two decades, conferring immense benefits on consumers. As detailed above, the *Title II Order* has threatened those benefits. That order’s conclusions are also inconsistent with the statutory text and the nature of broadband Internet access itself.

A. The Commission Must Classify Broadband Internet Access Consistent with Congress’s Vision.

In the Telecommunications Act of 1996, Congress sought to promote the brave new world of the Internet and the availability of innovative new services outside the regulatory box reserved for monopoly telecommunications services. Congress gave voice to that intent by codifying and extending the “basic” / “enhanced” service dichotomy through adoption of the “telecommunications service” and “information service” categories. In defining “information service,” Congress made clear that it was focused simply on whether the provider “offer[ed] a *capability for* generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information,” and that such capabilities would *always* be provisioned “via

⁷⁶ *Id.* ¶ 57.

telecommunications.”⁷⁷ Thus, from the start it was clear that neither the presence of transmission nor the fact that a particular capability was not used by a consumer in a given case would undercut an offering’s “information service” status.

In the 1998 *Stevens Report*, the Commission correctly recognized that if the substance and value of a service offering consists largely of information services (that is, if the *sine qua non* of what subscribers are receiving extends beyond mere transmission), then the overall offering is an information service, even if the service still relies substantially on transmission:

After careful consideration of the statutory language and its legislative history, we affirm our prior findings that the categories of “telecommunications service” and “information service” in the 1996 Act are mutually exclusive. Under this interpretation, an entity offering a simple, transparent transmission path, without the capability of providing enhanced functionality, offers “telecommunications.” By contrast, when an entity offers transmission incorporating the “capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information,” it does not offer telecommunications. Rather, it offers an “information service” even though it uses telecommunications to do so.⁷⁸

Congress envisioned Internet services independent from the strictures of Title II and embodied this vision in Section 230 of the 1996 Act, declaring 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.”⁷⁹

Before the *Title II Order*, the FCC repeatedly interpreted the Act consistent with Congressional intent by concluding that broadband Internet access service is an “information

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

⁷⁸ *Federal-State Joint Board on Universal Service*, Report to Congress, 13 FCC Rcd 11501, 11520 ¶ 39 (1998) (“*Stevens Report*”).

⁷⁹ 47 U.S.C. § 230(b)(2).

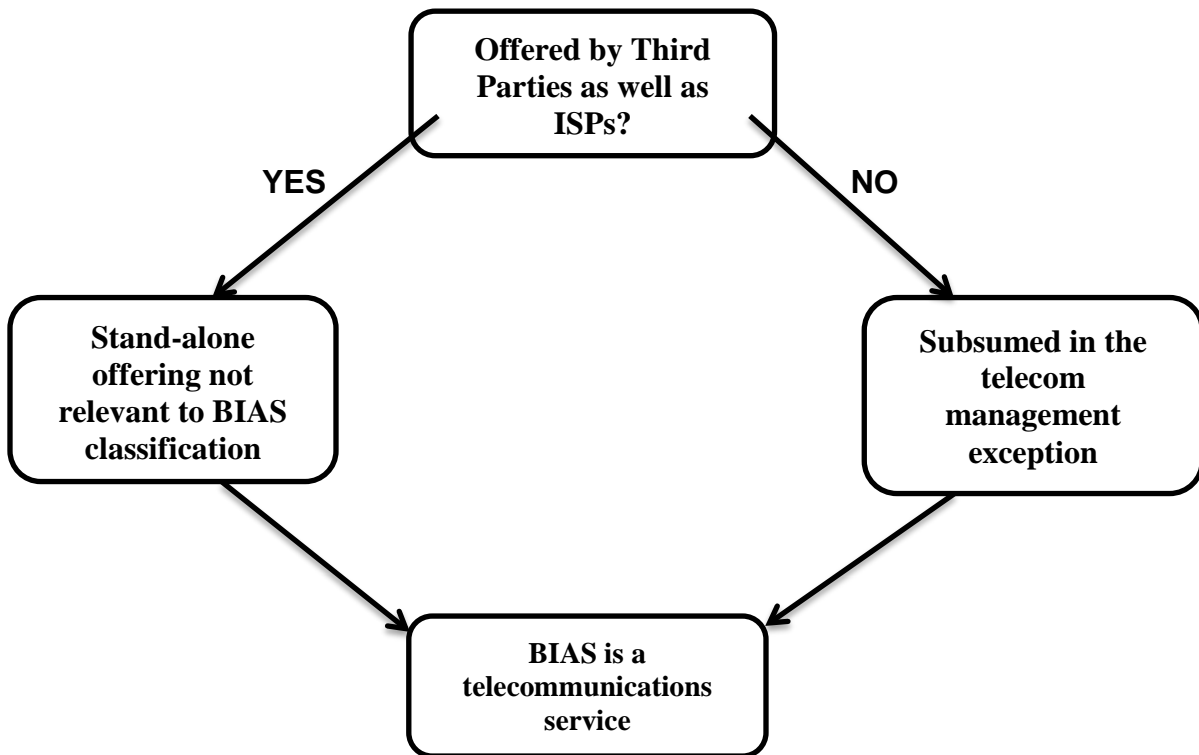
service.” This classification is even more accurate today – far from constituting merely a set of “dumb pipes,” mobile broadband networks are intelligent, innovative, and constantly evolving to meet existing consumer demand and anticipate future advances. In his attached Declaration, Peter Rysavy explains that “internet service, which began as a communications medium with limited intelligence, has evolved into a highly intelligent platform that processes and transforms information in multiple ways and at multiple nodes to both enhance the user experience and enable applications that would not otherwise be possible.”⁸⁰ Mobile broadband Internet access service has continued to evolve, incorporating more and more information service elements – processing, retrieving, and storing information, for example – that alter the fundamental nature of the service and enhance the value of the service for the customer. Indeed, if mobile broadband providers primarily offered consumers basic transmission with only incidental information processing, as the FCC proclaimed in the *Title II Order*, the “Internet access” that mobile broadband customers would experience would be profoundly different from the mobile computing power that most Americans carry around in their pockets today.

The Wheeler-led FCC ignored all of this. In a transparent effort to reverse many years of precedent on broadband’s proper classification, the *Title II Order* applied a reductive logic to systemically exclude every information-processing feature from broadband Internet access service. It severed the integrated product into two purportedly distinct components – the transmission element and the allegedly separate “add-ons” such as email, web hosting, and the like. It then asserted that: (1) any higher-level functionality intertwined with the transmission constituted mere “network management,” and thus fell into the “information service” definition’s exemption for such management activities; and (2) all other functionalities that could be offered

⁸⁰ Rysavy Decl. ¶ 2.

by a third party were not part of the broadband Internet access offering, and their classification was thus immaterial.⁸¹ The FCC thus was able to claim that what remains is pure transmission. The result is a simple but effective game of “heads I win, tails you lose.”

**The *Title II Order*’s “Heads I Win, Tails You Lose” Framework
For ISP Broadband Information Services**



By applying this facile construct to broadband Internet access services, the *Title II Order* sidestepped the statute and the regulatory distinctions the Commission developed over decades. But as the *Notice* appropriately recognizes, the essence of broadband Internet access is the offering of a *capability* to obtain and manipulate the information stored on the millions of

⁸¹ See *Title II Order*, 30 FCC Rcd at 5765-75 ¶¶ 366-381.

interconnected computers that comprise the Internet.⁸² Viewed in this context, it is clear that the aggregation of information service elements in broadband Internet access service *is* the product, with transmission constituting only a portion of that service.

B. Commission Orders From 1998 and 2007, Affirmed by the Supreme Court, Properly Deemed Broadband Internet Access an Integrated Information Service.

Between 1998 and 2015, the Commission consistently held that Internet access, including broadband Internet access, is an integrated information service. Dating back to findings in the *Stevens Report*, the Commission found that Internet access services permit users to “retrieve files from the World Wide Web, and browse their contents,” and therefore “offer[] the ‘capability for . . . acquiring, . . . retrieving [and] utilizing . . . information.’”⁸³ In 2002, the Commission explained that cable broadband offerings were integrated information services.

This is so regardless of whether subscribers use all of the functions provided as part of the service, such as e-mail or web hosting, and regardless of whether every cable modem service provider offers each function that could be included in the service. As currently provisioned, cable modem service is a single, integrated service that enables the subscriber to utilize Internet access service through a cable provider’s facilities and to realize the benefits of a comprehensive service offering.⁸⁴

⁸² *See Notice*, 32 FCC Rcd at 4442 ¶ 27.

⁸³ *Stevens Report*, 13 FCC Rcd at 11538 ¶ 76 (citation omitted).

⁸⁴ *Inquiry Concerning High-Speed Access to the Internet over Cable and Other Facilities*, Declaratory Ruling and Notice of Proposed Rulemaking, 17 FCC Rcd 4798, 4822 ¶ 38 (2002) (“*Cable Modem Order*”).

In 2005's *Brand X* decision, the Supreme Court upheld the *Cable Modem Order*'s approach, explaining that the classification of broadband services rests first and foremost "on the factual particulars of how Internet technology works and how it is provided."⁸⁵

When the Commission considered the classification of mobile broadband in 2007, it correctly concluded that "wireless broadband Internet access service meets the statutory definition of an information service" because it "offers a single, integrated service to end users, Internet access, that inextricably combined the transmission of data with computer processing, information provision, and computer interactivity, for the purpose of enabling end users to run a variety of applications."⁸⁶ In short, the Commission properly applied the analysis that the *Brand X* Court had affirmed, and determined that mobile broadband was, like cable and wireline broadband, an integrated information service.

C. Mobile Broadband Internet Access's Features Render It an Integrated Information Service.

As discussed above, the Wheeler-led Commission loaded the dice in the *Title II Order* by slicing up broadband Internet access service into its constituent components, and declaring that all of these information-processing functions either fit within the narrow "telecommunications-management" exception to the definition of information services or are not part of the "offering" at all.⁸⁷ Both of these claims were wrong. Broadband Internet access, as offered by mobile (and

⁸⁵ *Nat'l Cable & Telecommunications Association v. Brand X Internet Services*, 545 U.S. 967, 991 (2005) ("*Brand X*").

⁸⁶ *Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks*, Declaratory Ruling, 22 FCC Rcd 5901, 5911 ¶ 26 (2007) ("*Wireless Broadband Order*"). As described below, *see infra* Section VII, the Commission also concluded – correctly – that mobile broadband Internet access is a private mobile service, not a commercial mobile service, as those terms are defined in Section 332.

⁸⁷ *See Title II Order*, 30 FCC Rcd at 5765-72 ¶¶ 366-375.

other) providers, is an integrated bundle of functionalities including transmission and processing elements, all of which transform it into a service that vastly transcends the mere “transmission ... of information ... without change in the form or content of the information as sent and received.”⁸⁸

First, the components of broadband Internet access that the *Title II Order* deemed pure telecommunications are not that. The provision of Internet access service involves computer processing that changes the form or content of information sent over broadband networks – a fact that precludes any determination that broadband Internet access is the offering of “telecommunications” to the end user.⁸⁹

The *Title II Order* does not dispute that functionalities inherent in broadband communications offer “a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications...”⁹⁰ To reach its desired conclusion, then, the *Title II Order* resorted to the claim that these capabilities are within the so-called “network management exception” to the information service definition, because they were used “for the management, control, or operation of a telecommunications system or

⁸⁸ 47 U.S.C. § 153(50) (defining “telecommunications”).

⁸⁹ The Act defines “telecommunications” to mean “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.” *Id.* To be sure, as an information service, broadband Internet access involves the provision of capabilities “via telecommunications,” *id.* § 153(24), but the telecommunications involved are not “offered” directly to the end user. *See, e.g., Brand X*, 545 U.S. at 991 (explaining that “what [broadband providers] ... ‘offer’ is Internet service[,] ... though they do so using (or ‘via’) the discrete components composing the end product, including data transmission”). *See also Wireless Broadband Order*, 22 FCC Rcd at 5910-11 ¶¶ 25-26.

⁹⁰ 47 U.S.C. § 153(24) (defining “information service”).

the management of a telecommunications service.”⁹¹ This determination was wrong. As the *Title II Order* recognizes, the network management exception codifies the pre-existing “adjunct to basic” category, and the adjunct to basic contours are “instrumental in determining which functions fall within the ‘telecommunications systems management’ exception to the ‘information service’ definition.”⁹² The 2015 majority erred, however, in finding that functionalities such as caching and the use of the domain name system (“DNS”) did not transform broadband Internet access from mere transmission into something else – something that provided more value and functionality to the consumer.

As the Commission has long recognized, the “narrow” adjunct-to-basic category only applies to offerings that “facilitate use of the basic network without changing the nature of basic telephone service.”⁹³ As the agency explained in the 1985 *NATA Centrex Order*:

The computer processing services we ... recognized [in the *Computer II Order*] as permissible adjuncts to basic services are services which might indeed fall within possible literal readings of our definition of an enhanced service, but which are *clearly “basic” in purpose....* Another characteristic of a “basic” adjunct to basic service is that it does not alter the *fundamental character of telephone service.*⁹⁴

Thus, the Commission found, a call forwarding mechanism was adjunct-to-basic, because it “does not materially change the nature of a telephone call,” but “a voice mailbox-type service,” which provides “use of a storage facility into which messages can be placed for later retrieval,”

⁹¹ *Id.* See *Title II Order*, 30 FCC Rcd at 5765-72 ¶¶ 366-375.

⁹² *Title II Order*, 30 FCC Rcd at 5736 ¶ 312 n.804.

⁹³ *North American Telecommunications Association; Petition for Declaratory Ruling Under Section 64.702 of the Commission's Rules Regarding the Integration of Centrex, Enhanced Services, and Customer Premises Equipment*, 101 F.C.C.2d 349, 361 ¶ 28 (1985) (citation omitted).

⁹⁴ *Id.* at 359 ¶ 24, 360 ¶ 27 (emphasis added) (citation omitted).

was an enhanced (now “information”) service, “because it employs subscriber interactions with stored information for the purpose of providing a service which is not a basic transmission channel.”⁹⁵

It is absurd to suggest that the core functionalities of broadband Internet access are “clearly ‘basic’ in purpose,” do not “alter the fundamental character of telephone service,” or do not “employ[] subscriber interactions with stored information for the purpose of providing a service which is not a basic transmission channel.”

To begin with, the TCP-IP transmission protocol at the heart of broadband communications is itself an information-service capability that does far more than to facilitate basic communications. Rysavy explains that the very transmission of data on the Internet today involves the processing of information and, in some cases, the transformation of packets.⁹⁶ “Routing is not merely transmission, as routing offers services beyond just simply getting packets from one node to another. For example, the router may also enforce different policies, such as QoS ... mak[ing] a variety of applications possible that in the absence of such techniques would otherwise work sluggishly, or not at all.”⁹⁷

Other elements of broadband Internet access also cannot be dismissed simply as pure transmission or part of the network management exception that facilitates transmission. Notwithstanding the *Title II Order*’s acrobatics, the caching service embedded in many broadband Internet providers’ networks adds functionalities and customer value in ways that go well beyond facilitating basic transmission. As described by the Commission in the *Cable*

⁹⁵ *Id.* at 360-61 ¶ 27 (citation omitted).

⁹⁶ *See* Rysavy Decl. ¶ 4.

⁹⁷ *Id.* ¶ 11.

Modem Order, caching is “the storing of copies of content at locations in the network closer to subscribers than their original sources, i.e., data from websites, that subscribers wish to see most often in order to provide more rapid retrieval of information.”⁹⁸ To enable these information storage and retrieval capabilities, broadband providers employ robust software solutions and information-processing algorithms in their own networks to determine what, where, and how long content should be cached.

Caching is not telecommunications. Broadband providers implement caching by directing a consumer’s request for particular content to the closest cache that has the content, or to a nearby cache that is not experiencing congestion.⁹⁹ In doing so, the broadband provider delivers the information from an end point of *its* choosing, rather than an end point specified by the customer.¹⁰⁰

Nor does caching fall within the telecommunications management exception, as the *Title II Order* tried to claim.¹⁰¹ Caching’s capabilities enhance “users’ quality of experience and add[] value to their broadband Internet access service,” Rysavy explains, “by providing faster and more dependable service.”¹⁰² Faster download times for content, in turn, improves consumers’

⁹⁸ *Cable Modem Order*, 17 FCC Rcd at 4810 ¶ 17 n.76.

⁹⁹ See Rysavy Decl. ¶ 15.

¹⁰⁰ See 47 U.S.C. § 153(50) (defining “telecommunications” as the “transmission, *between or among points specified by the user*, of information of the user’s choosing, without change in the form or content of the information as sent and received.”) (emphasis added). See also *Title II Order*, 30 FCC Rcd at 5955 (Commissioner Ajit Pai Dissenting Statement) (“[E]ven with an IP address, an ISP may not connect a user with a particular end point. Instead, ISPs regularly cache popular content—anything from simple text to streaming video—so that when a subscriber requests such content it can be retrieved more quickly (and with less load on the network) than would occur if the request were sent to its specified destination.”) (citation omitted).

¹⁰¹ See *Title II Order*, 30 FCC Rcd at 5770 ¶ 372.

¹⁰² Rysavy Decl. ¶ 15. See also *Brand X* at 545 U.S. at 999-1000 (observing that caching “obviates the need for the end user to download anew information from third-party Web sites

access to a wider variety of content offerings, thereby enriching consumers' Internet experience. Thus, in the *Brand X* litigation, the FCC properly argued that caching is “not used ‘for the management, control, or operation’ of a telecommunications network,” but instead is “used to facilitate the information retrieval capabilities that are inherent in Internet access.”¹⁰³ The Commission got it right the first time. Caching functionalities do not simply manage the network by performing functions that facilitate transmission. They are a bundled information service, *particularly* when that “rapid retrieval” is accomplished by overruling the subscriber’s designated end point in contravention of the definition of a telecommunications service, i.e., the subscriber designates an edge provider as its end point but is re-directed to the ISP’s own caching server. This is amply demonstrated by the *Title II Order’s* conclusion that the same caching functions are an information service when they are offered by third-party content delivery networks.¹⁰⁴ The Commission sought to bolster the ISP/third party caching distinction by asserting that in third party caching “there would be no [broadband Internet access service] to which [the caching services are] adjunct.”¹⁰⁵ Yet this contradicts the Commission’s finding that to provide its caching services, a third party must “deploy[] its technologies deep in the networks of last-mile broadband Internet providers.”¹⁰⁶ As Rysavy observes, the ISP/third party

each time the consumer attempts to access them, thereby increasing the speed of information retrieval”).

¹⁰³ Reply Brief of the Federal Petitioners, *NCTA v. Brand X Internet Services*, 2005 U.S. S. Ct. Briefs LEXIS 285, at *12 n.2 (Mar. 2005) (“Reply Brief”).

¹⁰⁴ *See, e.g., Title II Order*, 30 FCC Rcd at 5771 ¶ 372 (“this caching function provided by broadband providers as part of a broadband Internet service[] is distinct from third party caching services provided by parties other than the provider of Internet access service (including content delivery networks, such as Akamai), which are separate information services.”) (citation omitted).

¹⁰⁵ *Id.*, 30 FCC Rcd. at 5769 ¶ 370 n.1046.

¹⁰⁶ *Id.* at n. 1053.

caching distinction makes no sense from a technical perspective, because “the cache that an ISP operates is indistinguishable from such third-party services.”¹⁰⁷ The *Title II Order*’s unwarranted departure from Commission precedent, and its failure to specify a coherent framework for providers offering the same functionalities as third parties, must be reversed.

Likewise, the DNS services that assist consumers when they search the Internet for content also transform the nature of the offering and provide additional value to customers. Most notably, DNS provides the processing capabilities that allow consumers to visit a website without knowing its IP address, and thereafter to “click through” a link on that website to other websites. “DNS service exhibits all of the hallmarks of an information service,” Rysavy explains, because a DNS server “processes information when it receives DNS queries; it generates information when it delivers a response to an end user or queries an authoritative server; it stores domain name information in its cache; it transforms information when it takes a query from a user and sends it upstream (for information not in its cache); it retrieves information when it obtains domain name data from the internet; it utilizes information that it has stored in its cache; and it makes information available when it responds to DNS queries.”¹⁰⁸

Contrary to the majority’s claims in the *Title II Order*, DNS does not manage telecommunications,¹⁰⁹ but instead is “used to facilitate the information retrieval capabilities that are inherent in Internet access.”¹¹⁰ As Chairman Pai explained back in 2015: “The very essence of functionalities like DNS and caching is to provide the ‘capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via

¹⁰⁷ Rysavy Decl. ¶ 18.

¹⁰⁸ *Id.* ¶ 20.

¹⁰⁹ *See Title II Order*, 30 FCC Rcd at 5766-67 ¶ 367.

¹¹⁰ Reply Brief at *12 n.2.

telecommunications.’ Thus, these ISP functions do not exist solely to ‘facilitate’ transmission or make it more ‘useful’; they are ‘what allow consumers to interact with and obtain information, as well as to make their own information available.’”¹¹¹

Other elements of broadband Internet access are similarly neither transmission nor covered by the telecommunications management exception. Network Address Translation (“NAT”), for example, enables private IP networks to connect to the Internet and “provides a security function because the internal private addresses of customer devices are obscured, thus restricting unsolicited and potentially harmful internet traffic.”¹¹² And the integration of IPv4 and IPv6 networks “enables connections that would not otherwise be possible” – which benefits consumers by supporting real-time applications such as video conferencing and gaming.¹¹³ These examples alter the fundamental character of the transmission and must be deemed information services and not merely telecommunications management exceptions.

Finally, the *Title II Order*’s effort to cleave off components of broadband Internet access such as email and web hosting and portray them as distinct “add-on” services fails.¹¹⁴ As Rysavy discusses at length, many of the offerings that are bundled with broadband Internet access today – including user-directed content filtering, the free data services enabled by video optimization, security services, and email – are in fact inherently intertwined with the underlying service.¹¹⁵ The fact that user-directed content filtering, email, and similar functionalities are

¹¹¹ See *Title II Order*, 30 FCC Rcd at 5991-92 (Commissioner Ajit Pai Dissenting Statement) (citations omitted).

¹¹² Rysavy Decl. ¶ 13.

¹¹³ *Id.* ¶ 14.

¹¹⁴ See *Title II Order*, 30 FCC Rcd at 5773-75 ¶¶ 376-381.

¹¹⁵ See Rysavy Decl. ¶¶ 25-28.

sometimes provisioned by third parties does not mean that they are distinct from transmission when offered by the ISP itself. As the Commission concluded previously, “what matters is the finished product made available through a service.”¹¹⁶ Thus, classification does not depend on whether or not consumers “use all of the functions and capabilities provided as part of the service (e.g., e-mail or web-hosting)” – what matters is whether the broadband Internet access *makes available* the capability to engage those functions.¹¹⁷ Today’s broadband Internet access providers clearly do.

In short, today’s mobile broadband services are *more* tightly integrated and “inextricably intertwined” with processing functionalities than the equivalent offerings were a decade ago. Notwithstanding the numerous flaws in the WTB Report on free data, the Bureau correctly captured this point when it stated: “The technology underlying today’s mobile broadband services provides operators with the ability to tailor service offerings in a much more dynamic and targeted manner. This creates the desirable potential for increased consumer benefits from more precisely crafted value propositions that reflect the varying needs of users.”¹¹⁸ The tailored offerings and consumer benefits that flow from the “powerful new attributes of the technology underlying today’s mobile broadband networks”¹¹⁹ eviscerate any notion that the information-processing functions of mobile broadband Internet access are “add-ons” or “basic” in purpose. Given that the information-processing capabilities of mobile broadband rendered that complete offering an information service back in 2007, there can be no doubt that today’s mobile

¹¹⁶ *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities Broadband Providers*, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853, 14864 ¶ 16 (2005).

¹¹⁷ *Id.* at 14864 ¶ 15.

¹¹⁸ WTB Report at 5.

¹¹⁹ *Id.*

broadband offerings, which are replete with even more sophisticated information-processing components, warrants the same classification.

D. There Is No Legal Barrier Against Reversing the *Title II Order*, and Various Legal Infirmities In Fact Favor Reversal.

There is no legal barrier against reversal of the *Title II Order*'s classification of broadband Internet access as a telecommunications service. To begin with, nothing about a change in course in any way invalidates or limits application of the *Chevron* doctrine to an agency's statutory interpretation. As the *Brand X* majority itself explained:

Agency inconsistency is not a basis for declining to analyze the agency's interpretation under the *Chevron* framework.... [I]f the agency adequately explains the reasons for a reversal of policy, "change is not invalidating, since the whole point of *Chevron* is to leave the discretion provided by the ambiguities of a statute with the implementing agency.... [T]he agency . . . must consider varying interpretations and the wisdom of its policy on a continuing basis, for example, in response to changed factual circumstances, or a change in administrations. That is no doubt why in *Chevron* itself, this Court deferred to an agency interpretation that was a recent reversal of agency policy.¹²⁰

Thus, so long as the Commission sufficiently explains its reasons for reversing the *Title II Order*, its decision is entitled to *Chevron* deference.

Nor should there be any risk that a return to the long-standing "information service" approach would fail to meet *Chevron*'s standards. Both the *Brand X* Court and the *USTelecom* Court recognized that the statutory language at issue here is ambiguous, affording the Commission discretion to adopt any reasonable interpretation.¹²¹ Here, of course, the Supreme

¹²⁰ *Brand X*, 545 U.S. at 981-82 (alteration in original) (citations omitted).

¹²¹ See *Brand X*, 545 U.S. at 981-82; *United States Telecom Association v. FCC*, 825 F.3d 674, 731 (D.C. Cir. 2016) ("*USTelecom*").

Court has already determined that the information service classification is reasonable and passes muster under *Chevron*.¹²²

Further undermining a blanket determination that broadband Internet access is a Title II “telecommunications service,” the D.C. Circuit’s decisions in *USTelecom* have created ambiguity as to the scope of the current regime and raised potential concerns under the doctrine of constitutional avoidance.

First, the panel decision by Chief Judge Tatel and the *en banc* denial concurrence authored by Judge Srinivasan in *USTelecom* both indicate that broadband providers have a choice as to whether the rules will apply to them in the first place. As the *Notice* observes, “the D.C. Circuit majority that reviewed the *Title II Order* stated that ‘[i]f a broadband provider . . . were to choose to exercise editorial discretion—for instance, by picking a limited set of websites to carry and offering that service as a curated internet experience,’ then the *Title II Order* ‘excludes such [a] provider[] from the rules.’”¹²³ Judge Srinivasan’s opinion concurring in the court’s denial of *en banc* review similarly held that the *Title II Order*’s classification applied “only to ‘those broadband providers who hold themselves out as neutral, indiscriminate conduits’ to any content of a subscriber’s own choosing” and “does *not* apply to an ISP holding itself out as providing something other than a neutral, indiscriminate pathway – i.e., an ISP making sufficiently clear that it provides a filtered service involving the ISP’s exercise of ‘editorial intervention.’”¹²⁴ These decisions underscore that the 2015 regime is arbitrary and capricious. If classification as a provider of “BIAS” and application of the associated obligations are optional,

¹²² See *Brand X*, 545 U.S. at 998-1000.

¹²³ *Notice*, 32 FCC Rcd at 4460 ¶ 79 (quoting *USTelecom*, 825 F.3d at 743).

¹²⁴ *United States Telecom Association v. FCC*, 855 F.3d 381, 389 (D.C. Cir. 2017) (Srinivasan Concurrence (quoting *Title II Order*, 30 FCC Rcd at 5869 ¶ 549)) (“*Srinivasan Concurrence*”).

then the *Title II Order* cannot achieve its stated goals, and is as such unlawful.¹²⁵ The decision devoted nine paragraphs to the majority’s conclusion that “broadband providers have the incentive and ability to limit openness.”¹²⁶ If that were true, any provider who could opt out of the rules would surely do so, rendering them inert. Conversely, if, as Judge Srinivasan suggested,¹²⁷ market forces *preclude* broadband providers from limiting users’ access to specific content streams, then the 2015 rules are based on a false premise – that providers have the ability to curtail such access – and the order is arbitrary and capricious for *that* reason. These problems provide an additional independent rationale for reversion to the prior “information services” approach.¹²⁸

Second, Title II classification of broadband Internet access service raises significant constitutional issues that are grounds for reversal on appeal, such as whether the classification restricts the editorial discretion of Internet service providers in violation of the First Amendment

¹²⁵ See, e.g., *Fund for Animals v. Norton*, 281 F. Supp. 2d 209, 230-31 (D.C. Cir. 2003) (explaining that lack of a “sufficient nexus between the proposed action and the agency’s stated purpose” renders agency action “arbitrary, capricious, or contrary to law”).

¹²⁶ *Title II Order*, 30 FCC Rcd 5628-35 at ¶¶ 78-86.

¹²⁷ *Srinivasan Concurrence*, 855 F.3d at 390 (“There is no need in this case to scrutinize the exact manner in which a broadband provider could render the FCC’s Order inapplicable by advertising to consumers that it offers an edited service rather than an unfiltered pathway. No party disputes that an ISP could do so if it wished, and no ISP has suggested an interest in doing so in this court. That may be for an understandable reason: a broadband provider representing that it will filter its customers’ access to web content based on its own priorities might have serious concerns about its ability to attract subscribers.”).

¹²⁸ Notably, while the “telecommunications service” classification turns (among other things) on how the provider offers the service, and thus is not here amenable to blanket application, the “information service” classification turns only on what is being offered (and not on what commercial or other terms it is offered), and thus allows for definitive classification based solely on the offering’s technical capabilities.

or violates the developing “major rules” doctrine.¹²⁹ Under the long-standing doctrine of constitutional avoidance (also known as the “avoidance doctrine” or the “doctrine of constitutional doubt”), “[a] statute must be construed, if fairly possible, so as to avoid not only the conclusion that it is unconstitutional but also grave doubts upon that score.”¹³⁰ Thus, when a statute is susceptible of more than one interpretation (as the courts have held the relevant definitions here to be), the interpreting body should give effect to the one that “preserv[es] congressional enactments that might otherwise founder on constitutional objections” – i.e., the one that “avoids” serious constitutional questions.¹³¹ Here, that doctrine counsels in favor of the “information services” classification, which avoids the First Amendment and major questions posed by the current framework.

VI. MOBILE BROADBAND INTERNET ACCESS IS A PRIVATE MOBILE RADIO SERVICE, NOT A COMMERCIAL MOBILE RADIO SERVICE, UNDER THE COMMUNICATIONS ACT.

The Commission should reinstate the determination that mobile broadband Internet access service is not a commercial mobile service, as defined by the Act. The Act is clear: Under Section 332, mobile broadband service may not, under any circumstances, be subjected to common carrier treatment under Title II. This statutory barrier to common carrier regulation of mobile broadband extends beyond the restrictions that other provisions of the Act establish for broadband offerings generally.

¹²⁹ See generally *United States Telecom Association v. FCC*, 855 F.3d 381 decision denying *en banc* review, Opinion of Kavanaugh, J., Dissenting, slip op. at 3-19 (major rules doctrine); *id.* at 19-36 (First Amendment).

¹³⁰ *United States v. Jin Fuey Moy*, 241 U.S. 394, 401 (1916).

¹³¹ *Almendarez-Torres v. United States*, 523 U.S. 224, 238 (1998).

A. Mobile Broadband is a Private Mobile Service.

The Commission may only subject mobile broadband services to Title II if those services are commercial mobile services (“CMRS”) or the functional equivalent of CMRS. Mobile broadband Internet access service is neither. Section 332(c) of the Act forbids the Commission from subjecting services that are not CMRS or the functional equivalent thereof to common carrier mandates. Section 332(c)(2) provides that the Commission “shall not” treat any private mobile service provider (“PMRS”) “as a common carrier for any purpose.”¹³² Section 332(d)(3), in turn, defines PMRS 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.”¹³³

Mobile broadband Internet access service is not CMRS. Section 332(d)(1) defines CMRS as an “interconnected service” made available for a profit to a substantial portion of the public,¹³⁴ and defines “interconnected service” to mean “service that is interconnected with the public switched network (as such terms are defined by regulation by the Commission).”¹³⁵ When the Commission first interpreted the terms CMRS, PMRS, and the “public switched network” in the *Second CMRS Order*, it emphasized that Congress was referring to the traditional *telephone* network.¹³⁶ Indeed, the Conference Report accompanying Section 332 makes clear that Congress intended the term “public switched network” to be synonymous with

¹³² 47 U.S.C. § 332(c)(2).

¹³³ *Id.* § 332(d)(3).

¹³⁴ *Id.* § 332(d)(1).

¹³⁵ *Id.* § 332(d)(2).

¹³⁶ *See Implementation of Sections 3(n) and 332 of the Communications Act*, Second Report and Order, 9 FCC Rcd 1411, 1436-37 ¶¶ 59-60 (1994) (“*Second CMRS Order*”).

the term “public switched telephone network.”¹³⁷ Accordingly, the Commission defined “public switched network” as “[a]ny common carrier switched network . . . that use[s] the North American Numbering Plan in connection with the provision of switched services.”¹³⁸

For more than twenty years, the Commission defined “interconnected service” consistent with Congressional intent. In the *Wireless Broadband Order*, for example, the Commission explained that Section 332(c) and its implementing rules barred classification of mobile broadband as common carriage because it is not an “interconnected service.”¹³⁹ The Commission held that mobile broadband is not “interconnected with the public switched network,” and thus is not CMRS, because mobile broadband service does not use the North American Numbering Plan to access the Internet, thereby “limit[ing] subscribers’ ability to communicate to or to receive messages from *all* users in the public switched network.”¹⁴⁰ Furthermore, the Commission held that both “section 332 and [its] implementing rules did not contemplate wireless broadband Internet access service as provided today.”¹⁴¹ In doing so, the Commission reiterated its 1994 determinations and concluded that a service cannot fit within the CMRS definition unless it is “interconnected with the local exchange or interexchange switched network as it evolves.”¹⁴²

And the Commission reaffirmed this core point under Chairman Genachowski, stating in a 2012 brief to the D.C. Circuit that “CMRS is defined as a mobile service that is ‘provided for

¹³⁷ H.R. Rep. No. 103-213, at 496 (1993) (“Conference Report”).

¹³⁸ 47 C.F.R. § 20.3 (2014).

¹³⁹ See *Wireless Broadband Order*, 22 FCC Rcd at 5916-17 ¶¶ 41-45.

¹⁴⁰ *Id.* at 5917-18 ¶ 45 (citation omitted).

¹⁴¹ *Id.* at 5918 ¶ 45 n.119.

¹⁴² *Id.*

profit,’ ‘interconnected’ to the public switched *telephone* network, and available on a common-carrier basis.”¹⁴³

The *Title II Order* altered the statutory scheme by upending the definition of “public switched network.” First, the Commission redefined the “public switched network” to include *both* the telephone network *and* the Internet.¹⁴⁴ Second, the Commission redefined “interconnected service” to include a service that connects to “some” end points on the public switched network rather than “all” endpoints, as it had always required.¹⁴⁵ This results-oriented approach represented a radical and unlawful departure from the statute, the Commission’s rules, and its precedents. The statutory definition, as long interpreted by the Commission, properly focused on numbering under the auspices of the North American Numbering Plan and interconnection to all points on the public switched *telephone* network. And while it is true that Section 332 directs the Commission to define “public switched network” by regulation, it is equally true that a Commission-developed definition must be consistent with the statutory text and congressional intent. When Congress used the term “public switched network” in 1993, it did so knowing that the Commission and the courts had routinely used that term interchangeably with “public switched telephone network.”¹⁴⁶ It is axiomatic that, when Congress “borrows” a

¹⁴³ Brief for Respondents Federal Communications Commission and United States of America, *Cellco Partnership v. FCC*, Case Nos. 11-1135 & 11-136, at 7-8 (D.C. Cir. 2012) (emphasis added), http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db0110/DOC-311901A1.pdf.

¹⁴⁴ *Title II Order*, 30 FCC Rcd at 5779 ¶ 391.

¹⁴⁵ *Id.* at 5787-88 ¶ 402.

¹⁴⁶ *See Ad Hoc Telecommunications Users Committee v. FCC*, 680 F.2d 790, 793 (D.C. Cir. 1982) (“[WATS] calls are switched onto the interstate long distance telephone network, known as the public switched network, the same network over which regular long distance calls travel.”) (quoted in *American Telephone and Telegraph Co.*, Memorandum Opinion and Order, 91 F.C.C.2d 338, 344 ¶ 16 (1982)); *Amendment of Part 22 of the Commission’s Rules Relating to*

term of art that has been given meaning by the courts or the relevant agency, it “intended [that term] to have its established meaning.”¹⁴⁷ In this case, Congress – like the courts and the Commission before it – used “public switched network” to mean “public switched telephone network.”

This point is confirmed by the text of the more recently enacted Section 1422(b)(1), which established the FirstNet public safety radio network. In that provision, adopted in 2012, Congress distinguished between the “public switched network,” on the one hand, and the “public Internet,” on the other, demonstrating that nearly 20 years after 1993, Congress continued to view these as different and separate networks.¹⁴⁸ This fact belies any suggestion that Congress used the term “public switched network” in a way that could be interpreted to include the broadband Internet.

The public switched telephone network and the Internet are distinct networks, and Congress could not have intended the statutory term to include both. Section 332(d)(2) of the

License Renewals in the Domestic Public Cellular Radio Telecommunications Service, Report and Order, 7 FCC Rcd 719, 720 ¶ 9 (1992) (Commission’s cellular service policy is to “encourage 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.”) (emphasis added)), *recon. on other grounds*, 8 FCC Rcd 2834 (1993), *further recon. on other grounds*, 9 FCC Rcd 4487 (1994); *Provision of Access for 800 Service*, Memorandum Opinion and Order on Reconsideration and Second Supplemental Notice of Proposed Rulemaking, 6 FCC Rcd 5421, 5421 ¶ 1 n.3 (1991) (“800 numbers generally must be translated into [plain old telephone service] numbers before 800 calls can be transmitted over the public switched network.”), *recon. on other grounds*, 8 FCC Rcd 1038 (1993); *MTS and WATS Market Structure*, Order Inviting Further Comments, 1985 FCC LEXIS 2900 at *2 (Fed.-State Jt. Bd. 1985) (“costs involved in the provision of access to the *public switched network* are assigned . . . on the same basis as . . . the local loop used by subscribers to access the *switched telephone network*.”) (emphasis added)); *Applications of Park Telephone Co.*, Memorandum Opinion and Order, 84 F.C.C.2d 689, 690 ¶ 2 n.3 (1981) (“the public switched network interconnects all telephones in the country.”).

¹⁴⁷ *McDermott International, Inc. v. Wilander*, 498 U.S. 337, 342 (1991).

¹⁴⁸ 47 U.S.C. § 1422(b)(1).

Act defines CMRS in part by limiting that designation to services offering interconnection with “*the* public switched network.” Congress’s use of that phrasing demonstrates that it meant for there to be only *one* such network; the CMRS definition does not contemplate offerings that interconnect with either of two separate networks. As Rysavy explains, the Internet and the public switched telephone network “use dramatically different protocols, different architectures, different approaches in switching (packet versus circuit), different nodes within the networks, and they provide very different capabilities.”¹⁴⁹ He explains further, “[b]ecause the set of protocols differs at every single networking layer, the two networks are completely incompatible with each other and cannot directly interoperate.”¹⁵⁰ As Rysavy suggests, characterizing the public switched telephone network and the Internet as a single communications network makes no more sense than characterizing the nation’s railways and the interstate highway system as a single transportation network.

Furthermore, the *Title II Order* erred when it claimed that mobile broadband service actually *is* interconnected to the public switched network because users may download third-party Voice over Internet Protocol (“VoIP”) applications that allow them to call telephone numbers. Although the Commission abandoned this “half-hearted” argument on appeal,¹⁵¹ the *Notice* observes that the court in *USTelecom* nevertheless relied on the Commission’s finding to conclude that the deletion of “all” from the prior definition of “interconnected service” to be “of no consequence” to the reclassification of mobile BIAS.¹⁵² In the *Wireless Broadband Order*, the Commission correctly held that, even though VoIP or other applications that ride over mobile

¹⁴⁹ Rysavy Decl. ¶ 6.

¹⁵⁰ *Id.* ¶ 32.

¹⁵¹ *Title II Order*, 30 FCC Rcd at 5963 (Commissioner Ajit Pai Dissenting Statement).

¹⁵² *Notice*, 32 FCC Rcd at 4454 ¶ 57.

broadband Internet service may provide an interconnected service, the underlying mobile broadband service “itself is not an ‘interconnected service’ as the Commission has defined the term.”¹⁵³ The Rysavy Declaration confirms that this finding is equally valid today. Rysavy observes that VoIP services such as Vonage enable “a limited form of interconnection” between the Internet and the public switched telephone network, but explains that this occurs only because the VoIP service provider (or another provider acting on its behalf) uses “specialized gateway equipment and software” to translate the different protocols between the two networks.¹⁵⁴ Furthermore, while VoIP subscribers have the ability to place calls to the public switched telephone network, the opposite is not true.¹⁵⁵ As Rysavy puts it, building on the previous analogy:

An analogy is transporting an automobile on a train car, which allows a passenger and the automobile to travel over the rail system. Such capability does not transform the rail system and road system into a single network. Nor does it permit perfect interoperability: Even though this system allows cars to reach any location that trains can go, it doesn’t allow trains to go to places that cars can go by road. The same is true of the telephone network and the Internet.¹⁵⁶

In short, services are classified and regulated on the basis of their *own* features. Mobile broadband might well facilitate use of VoIP offerings, but the provision of a VoIP offering is on top of the broadband service, and constitutes its own distinct offering. Mobile broadband does not provide dial tone, does not offer the user access to NANP endpoints, and does not

¹⁵³ *Wireless Broadband Order*, 22 FCC Rcd at 5917-18 ¶ 45.

¹⁵⁴ Rysavy Decl. ¶¶ 6, 34.

¹⁵⁵ *See id.* ¶ 36 (“Telephone users cannot make connections to IP addresses, nor even to Session Information Protocol (SIP) Uniform Resource Identifiers (URIs), which is the most typical form of addressing for VoIP.”).

¹⁵⁶ *Id.* ¶ 35.

“interconnect” with the public switched network. Mobile broadband allows access to video, but it is not a broadcast television or cable service. It offers access to Facebook and Instagram, but it is not a social network. So too, broadband is not VoIP, and cannot be said to offer interconnection with the public switched network simply because its users can access other services that do.

B. Mobile Broadband is Not the Functional Equivalent of CMRS.

Congress intended the functional equivalence prong of Section 332(d)(3) to cover services that are connected to the public switched telephone network and can be substituted for voice service.¹⁵⁷ Mobile broadband lacks these essential attributes.

As the Conference Report to the Section 332 enacting legislation established, the functional equivalent language was intended to ensure that “similar services are accorded similar regulatory treatment.”¹⁵⁸ To that end, the Commission observed that the primary criterion in determining whether a given service is the functional equivalent of CMRS is “whether the service is a close substitute for CMRS.”¹⁵⁹ It further made clear that it was principally concerned with traditional economic criteria for substitutability.¹⁶⁰ The Commission went on to identify a number of factors, 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

¹⁵⁷ See *Wireless Broadband Order*, 22 FCC Rcd at 5917 ¶ 44.

¹⁵⁸ *Second CMRS Order*, 9 FCC Rcd at 1418 ¶ 13 (quoting Conference Report at 494).

¹⁵⁹ *Second CMRS Order*, 9 FCC Rcd at 1447-48 ¶ 80.

¹⁶⁰ *Id.*

market research information identifying the targeted market for the service under review.”¹⁶¹

That test is not met here, because there is no evidence that customers are dropping CMRS in favor of mobile broadband.

Because mobile broadband and voice service obviously are not close substitutes for each other, the Wheeler-led FCC arbitrarily dumped this existing functional equivalence standard. Without providing any notice or opportunity for comment, it created a new test solely for mobile broadband (even while keeping the substitutability test in place): whether the service is “widely available” and allows communication with the “vast majority of the public.”¹⁶²

The Commission should repeal this test for two independent reasons. First, the question of whether a service is “widely available” disregards Congressional intent and is completely unrelated to whether the service is functionally the same as another service. An objective assessment that is based on the substitutability of two services has always governed here, and remains the superior approach. Second, by rescinding the 2015 shift in approach, the Commission can correct for the procedural defect arising from the lack of notice that gave rise to this arbitrary standard in the first place.¹⁶³

For the reasons discussed above, mobile broadband is not, and cannot be, either CMRS or its functional equivalent. It therefore is PMRS, and cannot be subject to common carrier requirements.

¹⁶¹ 47 C.F.R. § 20.9(a)(14)(ii)(B).

¹⁶² *Title II Order*, 30 FCC Rcd at 5789 ¶ 404.

¹⁶³ A decision by this Commission to repeal this standard on procedural grounds would not be precluded by the D.C. Circuit’s decision in *USTelecom*, because the court did not address the previous Commission’s decision to deem mobile broadband the “functional equivalent” of commercial mobile service. *See USTelecom*, 825 F.3d at 717.

VII. BROADBAND INTERNET ACCESS IS AN INTERSTATE INFORMATION SERVICE AND IMMUNE FROM STATE AND LOCAL REGULATION.

CTIA strongly agrees with Commissioner O’Rielly’s statement that “[i]f the Commission decides that [broadband Internet access] is an interstate information service” – as it must – “then states and localities should be foreclosed from regulating it, as some states are currently attempting to do with new broadband privacy laws, fees, approval processes, and other requirements.”¹⁶⁴ The benefits of a flexible, innovation-friendly federal framework for broadband regulation could be significantly offset by state and local activities in this area. This is true whether the state or locality at issue purports to be countermanding federal flexibility, supplementing the federal regime, or even furthering federal goals. The Commission thus should be clear that it is precluding state public utility regulation of broadband Internet access.

As an initial matter, there is, and should be, no doubt that broadband Internet access is an inherent interstate and international service offering. Broadband traffic traverses the globe, and users often have no knowledge of where individual communications streams originate or terminate. Accordingly, the Commission has repeatedly held that broadband Internet access is an inherently interstate and international service. As long ago as 1998, the agency concluded that xDSL offerings were interstate in nature because the communications “do not terminate at the ISP’s local server ... but continue to the ultimate destination or destinations, very often at a distant Internet website accessed by the end user.”¹⁶⁵ The *2002 Cable Modem Order* confirmed that the “points among which” broadband communications travel “are often in different states

¹⁶⁴ *Notice*, 32 FCC Rcd at 4508 (Statement of Commissioner Michael O’Rielly).

¹⁶⁵ *GTE Telephone Operating Cos., GTOC Tariff No. 1, GTOC Transmittal No. 1148*, Memorandum Opinion and Order, 13 FCC Rcd 22466, 22476 ¶ 19 (1998).

and different countries.”¹⁶⁶ And the *Wireless Broadband Order* also found that mobile broadband “is jurisdictionally interstate.”¹⁶⁷

The *Title II Order* “reaffirm[ed] the Commission’s longstanding conclusion that broadband Internet access service is jurisdictionally interstate for regulatory purposes” and acknowledged the Internet’s “inherently global and open architecture.”¹⁶⁸ It made clear that states were bound by the Commission’s forbearance determinations¹⁶⁹ and announced its “firm intention to exercise [its] preemption authority to preclude states from imposing obligations on broadband service that are inconsistent with the carefully tailored regulatory scheme” adopted by the FCC.¹⁷⁰

It appears, however, that the Commission did not go far enough, and must do more to ensure that states and their political subdivisions refrain from public utility regulation of broadband. Notwithstanding the agency’s findings, various states and localities have regulated, or attempted to regulate, in areas that should be reserved to the federal government. And the temptation to regulate broadband Internet access will only grow if state and local sovereigns come to believe the Commission has afforded providers too much flexibility.

The Commission must therefore make clear that states and localities are barred from engaging in public utility regulation of broadband Internet access service – not only where their regulations expressly conflict with federal law, but also where they purport “merely” to supplement federal goals or to advance federal aims. A patchwork quilt of state regulation of the

¹⁶⁶ *Cable Modem Order*, 17 FCC Rcd at 4832 ¶ 59 (citation omitted).

¹⁶⁷ *Wireless Broadband Order*, 22 FCC Rcd at 5911 ¶ 28.

¹⁶⁸ *Title II Order*, 30 FCC Rcd at 5803 ¶ 431.

¹⁶⁹ *Id.* at 5803-04 ¶ 432.

¹⁷⁰ *Id.* at 5804 ¶ 433.

Internet would be unworkable and deeply harmful to consumer interests. This is particularly true of mobile broadband offerings: (i) these offerings often are made available nationwide and typically make few if any distinctions between services offered in one state and another; and (ii) given the nature of mobile service, subscribers use mobile service seamlessly as they travel from state to state.

The Commission therefore should establish that broadband regulation is an area in which “the federal interest is so dominant that the federal system will be assumed to preclude enforcement of state laws on the same subject.”¹⁷¹ A state or locality cannot successfully claim that it seeks only to pursue federal objectives via a different strategy than the federal government. In the Supreme Court’s words, “[c]onflict in technique can be fully as disruptive to the system Congress erected as conflict in overt policy,”¹⁷² and “[t]he fact of a common end hardly neutralizes conflicting means.”¹⁷³ Nor may a state or locality attempt to shift overall policy by adding requirements that the federal authority opted not to apply. As the Third Circuit explained in a case involving the Commission, “regulatory situations in which an agency is required to strike a balance between competing statutory objectives lend themselves to a finding of conflict preemption.”¹⁷⁴ In such cases, allowing a state or local requirement “to impose a different standard permits a re-balancing of those considerations.”¹⁷⁵ Such regulations, however

¹⁷¹ *Hillsborough County v. Automated Medical Laboratories, Inc.*, 471 U.S. 707, 713 (1985) (internal quotation marks omitted) (citation omitted).

¹⁷² *Amalgamated Association of Street, Electric Railway & Motor Coach Employees of America et al. v. Lockridge*, 403 U.S. 274, 287 (1971).

¹⁷³ *Crosby v. National Foreign Trade Council*, 530 U.S. 363, 379-80 (2000).

¹⁷⁴ *Farina v. Nokia*, 625 F.3d 97, 123 (3d Cir. 2010).

¹⁷⁵ *Id.*

well intentioned, “stand[] as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.”¹⁷⁶

Nothing in the Act precludes the Commission from asserting exclusive jurisdiction over broadband Internet access. Section 152, of course, affords the Commission authority over all “all interstate and foreign communication by wire or radio,” and reserves state authority only with regard to “intrastate communication service.”¹⁷⁷ While there likely are some slivers of broadband communications that do not cross state boundaries, it would be impossible to apply state regulation to those bits without affecting interstate traffic and thereby interfering with federal aims.¹⁷⁸

Likewise, notwithstanding the *Verizon v. FCC* dicta regarding Section 706,¹⁷⁹ nothing in that provision purports to outdo the Communications Act’s broader jurisdictional allocation of powers or precludes the FCC from interpreting the statute to bar state regulation. Indeed, even if Section 706 did provide states with authority to regulate “advanced telecommunications capability” generally, that grant need not be interpreted to apply to *all* advanced telecommunications capabilities. Put differently, the fact that Section 706 might endow states with some authority over advanced intrastate point-to-point transmission offerings does not mean

¹⁷⁶ *Id.* at 134 (quoting *Hillsborough County*, 471 U.S. at 713).

¹⁷⁷ 47 U.S.C. § 152.

¹⁷⁸ *See, e.g., Vonage Holdings Corporation Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, Memorandum Opinion and Order, 19 FCC Rcd 22404, 22418-24 ¶¶ 23-32 (2004) (applying impossibility doctrine, under which, absent plausible means for separating regulated service into interstate and intrastate components, state regulation must be preempted because state regulation otherwise would unavoidable reach the interstate traffic).

¹⁷⁹ *See Verizon v. FCC*, 740 F.3d 623, 638 (D.C. Cir. 2014) (suggesting Section 706 might serve as a grant of authority to state commissions).

that it also grants authority over inherently interstate and international broadband Internet access offerings.

Thus, the Commission should expressly hold that its regulatory regime precludes concomitant state and local public utility regulation of broadband Internet access, even when such regulation purports to be consistent with the federal framework. Nothing in the statute precludes exclusive federal authority over this inherently interstate and international offering.

CONCLUSION

For the reasons described herein, the Commission should reverse the *Title II Order*. CTIA supports Congressional action to firmly establish broadband Internet access's classification as an interstate information service and to adopt specific, common-sense net neutrality rules. Those actions will bring more than a decade of uncertainty to a close and ensure that consumers continue to enjoy the benefits of broadband services – and particularly mobile broadband services – going forward.

Respectfully submitted,

/s/ Scott K. Bergmann

Scott K. Bergmann

Vice President, Regulatory Affairs

Matthew Gerst

Assistant Vice President, Regulatory Affairs

CTIA

1400 Sixteenth Street, NW

Suite 600

Washington, DC 20036

(202) 785-0081

Dated: July 17, 2017