

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)
)
Protecting and Promoting the Open Internet) GN Docket No. 14-28
)
)

COMMENTS OF COMPTEL

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TABLE OF CONTENTS

I. INTRODUCTION AND SUMMARY..... 1

II. PROHIBITING DISCRIMINATION THROUGH TITLE II RECLASSIFICATION OF THE TRANSMISSION COMPONENT OF BROADBAND INTERNET ACCESS SERVICE BEST PRESERVES AN OPEN INTERNET..... 6

A. A “Commercial Reasonableness” Standard Is Inconsistent with U.S. Open Internet Policy..... 6

B. Title II Reclassification Will Ensure Technological Neutrality and Promote Broadband Competition..... 14

C. Employing a Light-Touch Regulatory Approach Through Forbearance Avoids the Risk of Overregulation..... 21

D. While Title II Reclassification Provides Sounder Footing, If the Commission Proceeds Under Section 706, It Should Ensure Competitor and Edge Provider Access to Broadband Networks on Just and Reasonable Terms. 24

III. PROTECTING OPEN INTERNET TRAFFIC EXCHANGE GOES HAND-IN-HAND WITH PROTECTING LAST-MILE END USER INTERNET ACCESS. .. 26

IV. THE COMMISSION’S RULES MUST ENSURE TRANSPARENCY IN INTERNET TRAFFIC EXCHANGE, NETWORK MANAGEMENT PRACTICES, AND NETWORK PERFORMANCE..... 30

V. THE COMMISSION SHOULD ADOPT A RAPID DISPUTE RESOLUTION PROCESS AND ESTABLISH AN OMBUDSPERSON. 33

VI. CONCLUSION 35

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COMMENTS OF COMPTTEL

I. INTRODUCTION AND SUMMARY

COMPTTEL, the leading industry association for competitive communications service providers and their supplier partners, supports the adoption of robust safeguards to preserve a free and open Internet from end-to-end.¹ Targeted regulatory oversight will expand innovation, promote economic growth, and protect civic engagement and free expression.

For more than 30 years, COMPTTEL has advocated for competitive policies in the communications industry. COMPTTEL has more than 200 members, including local service providers, broadband providers, mobile and fixed wireless carriers, cable operators, and cloud and other edge/application service providers, as well as suppliers and professional partners. Nearly two-thirds of COMPTTEL members are small and medium-sized businesses, a majority of which have \$10 million or less in revenue and fewer than 100 employees. COMPTTEL member companies utilize private investment to drive technological innovation and create economic

¹ See *Protecting and Promoting the Open Internet*, Notice of Proposed Rulemaking, 29 FCC Rcd 5561 (2014) (“*Open Internet NPRM*”). These Comments reflect the position of a majority of COMPTTEL members. Individual members may be filing separate comments where they advocate positions on some issues that are different from those stated herein. Some members do not join in these comments.

growth with their competitive broadband, voice, video, Internet, data and other advanced services.

Reinstating the open Internet rules will preserve the framework that has made the Internet so successful. Additionally, Chairman Wheeler's recent announcement that the Commission will collect data on and examine Internet traffic exchange issues between Internet Service Providers ("ISPs") and other networks and services will provide valuable information on the manner in which Internet traffic is delivered to the ISP providing the last-mile connection to the end user.² To preserve the Internet's open architecture, the Commission should use Title II to regulate the transmission component of broadband Internet access service and protect against discrimination and blocking while simultaneously making clear that it will not tolerate anticompetitive practices in the exchange of Internet traffic.

As the Commission recognizes, the incredible growth and gains of the Internet flow from its open, end-to-end architecture.³ The Internet is not a "plug that connects to a digital cloud," but a "digital quilt of millions of separate networks."⁴ While the Commission plainly recognizes the complex interrelationships of the countless interconnected networks that comprise the Internet, the "commercial reasonableness" proposal under consideration is insufficient and far too vague to effectively police discrimination and blocking. Moreover, an excessively narrow focus on only the last-mile portion of the Internet traffic path will fail to adequately constrain the potential for anticompetitive behavior on the part of the ISPs that serve as gatekeepers to the

² See Chairman Tom Wheeler, *Statement on Broadband Consumers and Internet Congestion* (June 13, 2014), available at <http://bit.ly/1lgJP8G> (last accessed July 7, 2014) ("*Chairman Wheeler Statement on Broadband*").

³ *Open Internet NPRM* ¶ 1.

⁴ The Economist, *The Underwood of Net Neutrality* (Feb. 25, 2014), available at <http://econ.st/1mA5lWq> (last accessed July 7, 2014).

transit providers and content delivery networks (“CDNs”) seeking to deliver Internet traffic to the ISPs’ end users.

The proposed “commercial reasonableness” standard will necessarily allow (and indeed invite) broadband providers to discriminate against individual edge providers.⁵ The Commission specifically clarified that the standard “does not preclude broadband providers from negotiating individualized, differentiated arrangements with similarly situated edge providers.”⁶ And broadband providers have made no secret of their desire to impose new costs on edge providers, and they have the leverage to do so.

Paid prioritization should be banned outright. Preferential access would favor those content, application, and other edge providers who can afford to pay for better access to end users while disadvantaging those who cannot afford to pay, including startups and non-profits, and ultimately all end users. The Commission also should review whether access charges for traffic exchange between broadband providers and content, application and other edge providers should be permitted. In the intercarrier compensation (“ICC”) context, the bill-and-keep endpoint that the Commission adopted for terminating access payments between telephone providers, much like the settlement-free peering model that generally governs the exchange of Internet traffic, means that the network provider serving the end user is responsible for the cost of getting traffic to and from its end user over the last mile.

The D.C. Circuit in *Verizon v. FCC* did not fault the Commission for applying common-sense regulation to Internet choke points, but rather for the Commission’s attempt to regulate broadband Internet access service providers as common carriers after deciding to classify them

⁵ See *Verizon v. FCC*, 740 F.3d 623, 652 (D.C. Cir. 2014) (explaining that the commercially reasonable standard of the data roaming rules leaves “substantial room for individualized bargaining and discrimination in terms”).

⁶ *Open Internet NPRM* ¶ 89.

as information service providers exempt from such regulation. Rather than forgo important commercial and consumer protections available under Title II of the Communications Act, the Commission should embrace the regulatory authority Congress has given it, reclassify the transmission component of broadband Internet access service as a telecommunications service subject to Title II of the Act, and reinstate the non-discrimination and no-blocking rules.

A telecommunications transmission component is a necessary input to provide broadband Internet access service. The Commission classifies the stand-alone transmission components used by both incumbent local exchange carriers (“ILECs”) and competitive local exchange carriers (“CLECs”) as inputs to provide broadband Internet access and as Title II telecommunications services. Title II reclassification of the transmission component of broadband Internet access service offers the Commission a strategy for addressing the disappointing lack of competition in the wireline broadband market, which generally has cost-prohibitive barriers to facilities-based entry. By requiring facilities-based broadband providers, including cable broadband providers, to provide wholesale access to the transmission component on a reasonable basis, the Commission can encourage competitors to offer alternative broadband Internet access services.

At the same time, the Commission can use its forbearance authority to the extent necessary to avoid any potential regulatory overreach involved with Title II reclassification. While net neutrality opponents routinely advance a long list of regulatory bogeymen associated with Title II regulation, the Commission has authority to pursue a more limited, nuanced approach through forbearance. This type of “light-touch” Title II regulatory approach has worked well in the wireless context, and COMPTTEL supports applying it to broadband Internet service providers.

In addition to Title II reclassification of the transmission component of broadband Internet access service, Internet openness requires an examination of interconnection between broadband Internet access service providers and edge providers and transit providers to ensure that the latter are not subject to anticompetitive practices, and the Commission should commit to doing so in this proceeding. As Chairman Wheeler recently recognized, interconnection is “at the heart” of protecting Internet consumers.⁷ However, based on the behavior of certain broadband providers with regard to interconnection, consumers are at risk. As transit providers and edge providers alike have explained, certain broadband providers are allowing points of interconnection to become congested, which slows consumer download speeds. These broadband providers are then charging the transit or edge provider to add the capacity necessary to restore Internet speeds to what was promised to the consumer. An examination of interconnection and the exchange of traffic to address these issues is therefore warranted.

Transparency requirements standing alone are inadequate to ensure Internet openness, but they provide important additional safeguards against the anticompetitive exercise of market power. Supplementing the proposed transparency requirements with information regarding interconnection practices will enhance these protections.

Finally, access to an effective dispute resolution process for edge providers and end users alike will be critical to protecting and promoting Internet openness. Ensuring rapid investigation and resolution of complaints and appointing an ombudsperson as a “watchdog” will help promote the overall efficacy of the rules.

As explained in more detail below, by implementing these protections, including Title II non-discrimination requirements and safeguards at the point of interconnection, the Commission

⁷ *Chairman Wheeler Statement on Broadband.*

can preserve the open Internet and maintain the United States' status as a world-leader in innovation.

II. PROHIBITING DISCRIMINATION THROUGH TITLE II RECLASSIFICATION OF THE TRANSMISSION COMPONENT OF BROADBAND INTERNET ACCESS SERVICE BEST PRESERVES AN OPEN INTERNET.

A. A “Commercial Reasonableness” Standard Is Inconsistent with U.S. Open Internet Policy.

As the Commission recognizes, “[t]he Internet is America’s most important platform for economic growth, innovation, competition, free expression, and broadband investment and deployment.”⁸ According to the Commission “[t]hese benefits flow, in large part, from the open, *end-to-end* architecture of the Internet, which is characterized by low barriers to entry for developers of new content, applications, services, and devices and a consumer-demand-driven marketplace for their products.”⁹ Unfortunately, however, the Commission’s proposed “commercial reasonableness” standard threatens this fundamental openness.¹⁰

Because a “commercial reasonableness” standard will, by definition, allow broadband providers to discriminate against individual edge providers, edge providers will face increased costs and greater business uncertainty.¹¹ In particular, broadband providers are likely to: (1) directly charge edge providers for prioritized higher-bandwidth access to end users; and (2) impose access charges on transit providers and content-distribution networks (“CDNs”) to reach their customers. Allowing “commercially reasonable” discrimination will thus create uncertainty, harm investment, and impose barriers to entry in the edge provider market.

⁸ *Open Internet NPRM* ¶ 1.

⁹ *Id.*

¹⁰ *See id.* ¶¶ 110-41; *see also* Letter from Henry A. Waxman, Ranking Member, House Committee on Energy and Commerce, to Tom Wheeler, Chairman, FCC, Docket No. 14-28 (May 14, 2014) (“[Paid prioritization] schemes have always been antithetical to the principles of an open Internet.”).

¹¹ *Open Internet NPRM* ¶ 111 (explaining that the “commercial reasonableness” standard “may permit broadband providers to engage in individualized practices”).

Stated differently, paid prioritization will allow broadband Internet access service providers to differentiate between those who can pay and those who cannot. In this way, charging a premium to deliver content to end users (controlled exclusively by the broadband Internet access service provider) allows the provider to wrest the power to reach an intended audience from the free and open Internet and put it in the hands of those individuals and businesses most able to pay the access charges. As the Commission has previously found, “if permitted to . . . charge edge providers for prioritized access to end users, broadband providers may have incentives to allow congestion rather than invest in expanding network capacity.”¹²

A prioritization levy is hardly speculative. Broadband providers, such as Verizon, have made no secret of their desire to impose new fees directly on edge providers. For example, Verizon, in its briefs and during oral argument before the D.C. Circuit, explained that “‘but for [the *Open Internet Order*] rules, [it] would be exploring those commercial arrangements.’”¹³ In this docket, Verizon recently reaffirmed that it is interested in pursuing “two-sided pricing arrangements” (i.e., charging edge providers and end users for delivery of Internet services).¹⁴ AT&T has supported the same approach.¹⁵

¹² *Preserving the Open Internet*, Report and Order, GN Docket No. 09-191, WC Docket No. 07-52 ¶ 40 (Dec. 23, 2010) (“*Open Internet Order*”)

¹³ See *Verizon v. FCC*, 740 F.3d at 646 (citing Oral Arg. Tr. 31); see also *Open Internet NPRM* ¶ 37 (“In its arguments challenging the *Order*, Verizon expressed interest in pursuing commercial agreements with edge providers to govern the carriage of the edge providers’ traffic.”) (citing Joint Reply Brief of Appellants/Petitioners Verizon and MetroPCS at 7-8, *Verizon v. FCC*, No. 11-1355 (D.C. Cir. Dec. 21, 2012)).

¹⁴ See, e.g., *Ex Parte* Letter from Michael E. Glover, Senior Vice President and Deputy General Counsel, Verizon, to Marlene H. Dortch, Secretary, FCC, Docket No. 14-28 (May 14, 2014) (“*Verizon May 14 Ex Parte*”) (“One example of the types of innovations that could benefit consumers is two-sided pricing arrangements.”).

¹⁵ See Comments of AT&T Services, Inc., GN Docket No. 14-28 at 15-27 (Mar. 21, 2014). AT&T, however, has pledged to honor the Commission’s original 2010 Open Internet Rules, including the non-discrimination principle, if its proposed acquisition of DirecTV is approved. See AT&T and DirecTV, *Description of Transaction, Public Interest Showing, and Related Demonstrations*, MB Docket No. 14-90, 8 (June 11, 2014) (“AT&T will adhere to the Commission’s Open Internet protections established in 2010 for three years after closing, regardless of whether the Commission re-establishes such protections for other industry participants following the D.C. Circuit’s vacatur of those rules.”).

While apologists for the broadband Internet access providers often assert that a rational service provider would never charge so high a price for prioritization that it would hinder personal expression and business innovation, this argument assumes that prioritization taxes will not create disincentives to innovation and investment. The benefits that providers may realize from increased revenues from paid prioritization would be at the expense of reduced edge provider entry, suppressed innovation, and depressed consumer demand.¹⁶

And even if only some broadband Internet access service providers exploit the ability to tax content and innovation on the Internet, edge providers, especially smaller edge providers, will still suffer because novel applications and services may lack the scale necessary to spread the fees that broadband Internet access providers may seek to impose.¹⁷ A novel social networking site, for example, would be less likely to achieve popularity, much less commercial success, if American consumers seeking to use it experience latency, jitter, and delay not found with other, more established social networks better able to absorb the broadband providers' prioritization fees. The innovative new network would likely collapse due to poor performance relative to the more established, better-performing networks of its larger competitors. Paid prioritization, in short, would likely chill entry and innovation.

Mere transparency into fee arrangements is insufficient to protect against these harms. As the Commission recognizes, “[i]n many areas of the country, with respect to fixed Internet access, consumers may have only limited options, i.e., one or two fixed providers available.”¹⁸ At the same time, “customers may incur significant costs in switching from one provider to another, thus creating ‘terminating monopolies’ for content providers needing high-speed

¹⁶ *Open Internet NPRM* ¶ 6.

¹⁷ See, e.g., Leichtman Research Group, *About 580,000 Add Broadband in Third Quarter of 2012* (Nov. 14, 2012), available at <http://www.leichtmanresearch.com/press/111412release.html> (last accessed July 7, 2014).

¹⁸ *Open Internet Order* ¶ 48.

broadband service to reach end users.”¹⁹ In other words, even if consumers were upset with a paid prioritization or access charge practice, there would be little they could do about it. A recent study covered in the *Washington Post* found that fifty-three percent of respondents “said they’d leave their current cable company – if they had a choice” – and as many as seventy percent said their options were too limited.²⁰ When broadband providers have bottleneck control over access to end users, they have the capacity and incentive to leverage that control by discriminating among edge providers and charging new access fees.

The same forces that apply to edge providers apply to points of interconnection and peering agreements within the network. While these Internet traffic exchange issues are addressed more fully below, recent developments in the interconnection marketplace (such as Netflix’s interconnection contracts with Comcast and Verizon) illustrate broadband providers’ incentives to force content providers to pay them directly to obtain the capacity necessary to ensure an acceptable level of service for their shared end users.²¹ Just in the time since the D.C. Circuit vacated the antidiscrimination and no-blocking rules in *Verizon v. FCC* in January, there have been reports of several high profile situations where broadband providers have demanded payments in exchange for access to their customers after allowing points of interconnection to exceed capacity.²² In the recent Comcast-Netflix dispute, Comcast refused to increase the capacity of its points of interconnection with Netflix’s transit provider and allowed those points

¹⁹ *Id.* ¶ 42.

²⁰ See Brian Fung, ‘A Soup of Misery’: Over Half of People Say They’d Abandon Their Cable Company, If Only They Could, *Washington Post* (June 6, 2014), available at <http://wapo.st/11GAoUe> (last accessed July 7, 2014). According to the company conducting the study, compared to all other industries it has studied, “these are the highest levels of [company] vulnerability and [consumer] frustration [it has] ever seen.” *Id.*

²¹ See Letter from Corie Wright, Director, Global Public Policy, Netflix, Inc., to Marlene Dortch, Secretary, FCC, Docket No. 14-28 at 3 (Mar. 20, 2014) (“*Wright Letter*”).

²² These access charges seem contrary to the Commission’s decision to reduce and ultimately eliminate terminating access charges for traffic exchange on the PSTN. See *In the Matter of Connect America Fund*, Report and Order, 26 FCC Rcd 17633 ¶ 737 (2011) (“*USF/ICC Transformation Order*”).

of interconnection to become congested.²³ Netflix saw delivery speeds of its content to Comcast subscribers declining by as much as twenty-five percent.²⁴ Rather than agreeing to increase the capacity at the point of interconnection pursuant to standard industry practice, Comcast demanded payment, and without any other options to reach Comcast customers at the necessary speeds, Netflix agreed to pay Comcast for direct interconnection. Shortly thereafter, Netflix entered a similar deal with Verizon.²⁵ Level 3 also entered an agreement with Comcast.²⁶

Notwithstanding Internet service providers' unsubstantiated claims that the ability to levy a toll on edge providers or their backbone/transit service providers will lower consumer costs,²⁷ these additional revenues are unlikely to reduce the cost of Internet service for end users. Instead, when companies like Netflix are forced to pay to play, they must pass that cost along to customers who do not see any corresponding reduction in the Internet fees they pay their broadband service providers.²⁸

Before the Commission's 2011 decision reforming the ICC framework to reduce and then eliminate reciprocal compensation and terminating access charges, Commission rules

²³ See *Wright Letter* at 2-3 (“A few weeks ago, we agreed to pay Comcast, and our members are now getting a good experience again.”).

²⁴ See Edward Wyatt and Noam Cohen, *Comcast and Netflix Reach Deal on Service*, The New York Times (Feb. 23, 2014), available at <http://nyti.ms/1m3UBE6> (last accessed July 7, 2014); see also *Wright Letter* at 2. Note that the disagreement between Verizon and Cogent, one of Netflix's primary backbone providers, was brewing for nearly a year before Netflix's agreement. See, e.g., Om Malik and Stacey Higginbotham, *Having Problems with Your Netflix? You Can Blame Verizon*, Gigaom (Jun. 17, 2013), available at <http://bit.ly/SXHdWn>.

²⁵ See Jason Abbruzzese, *Netflix Agrees to Pay Verizon for Peering Two Months After Comcast Deal*, Mashable (Apr. 28, 2014), available at <http://on.mash.to/1rg1H8N>.

²⁶ See Drew Fitzgerald, *Level 3, Comcast, Reach Accord on Internet Traffic Costs*, The Wall Street Journal (July 16, 2013), available at <http://on.wsj.com/1npkewP>.

²⁷ See, e.g., *Verizon May 14 Ex Parte*.

²⁸ See, e.g., Dave Schaeffer, Chairman and Chief Executive Officer, Cogent Communications Group, Written Statement before the United States House of Representatives, Committee on the Judiciary, Subcommittee on Regulatory Reform, Hearing on: “Competition in the Video and Broadband Markets: The Proposed Merger of Comcast and Time Warner Cable,” 3, 8 (May 8, 2014) (“*Schaeffer Testimony*”), available at <http://1.usa.gov/1o6TnHL> (last accessed July 7, 2014) (explaining that “[w]hen providers simply have no choice but to pay, these costs will necessarily be passed on to consumers,” who have seen “ISPs like Comcast . . . raise[] the cost of Internet access”).

incorporated a calling-party-network-pays model, where the network of the calling party would pay reciprocal compensation for local and access charges for long distance calls to the terminating carrier.²⁹ The Commission rejected this methodology in favor of a bill-and-keep model for terminating traffic “akin to the model generally used to determine who bears the cost for the exchange of IP traffic where providers bear the cost of getting their traffic to a mutually agreeable exchange point with other providers.”³⁰

Allowing broadband Internet access service providers to assess access charges for the exchange of Internet traffic would appear to be antithetical to the Commission’s decision to replace the legacy intercarrier terminating access charge regime with a model akin to that used to determine who bears the cost of exchanging Internet traffic. Internet service subscribers pay their providers substantial fees for the speeds necessary to meet their needs. The Commission has recognized that having end-users pay for the network and service to which they subscribe is consistent with principles of cost causation, meaning that the party who causes the cost should have to pay for it.³¹ Careful scrutiny by the Commission may be warranted where broadband Internet access service providers exact tolls or access fees from CDNs, transit providers or edge providers to reach their end users.

The Commission has acknowledged that “unfair competitive advantages can jeopardize innovation on the edge and impair otherwise lawful delivery of products and services.”³² To the extent that a vertically integrated cable broadband Internet access service provider is able to raise the cost of rival providers of services that compete with its own or those of its affiliates, such as over-the-top video or VoIP, by assessing access charges to reach its end users, the broadband

²⁹ See *USF/ICC Transformation Order* ¶ 34.

³⁰ *Id.* ¶ 737.

³¹ See *id.* ¶ 744.

³² *Open Internet NPRM* ¶ 124.

provider may deter direct competition. The Commission proposes to adopt a rebuttable presumption “that a broadband provider’s exclusive (or effectively exclusive) arrangement prioritizing service to an affiliate would be commercially unreasonable.”³³ This type of presumption offers a sensible safeguard against an obvious form of anticompetitive behavior, but it does not address the ability or the incentive of the provider to raise rivals’ costs through the imposition of access charges to reach its end users. The very ability to charge these fees and discriminate among service providers may impose barriers to entry for new competitors, and Commission oversight is required.

As noted earlier, Comcast and Verizon are already charging Netflix for access to their end users. If these types of charges are allowed, it may only be a matter of time before large broadband Internet access service providers start imposing the same kinds of fees on all CDNs, transit providers, and edge providers. The potential charges to reach end users – essentially an added tax on Internet businesses – will fall hardest on small- and medium-size businesses and will include businesses in all types of industries. Take the real estate industry, for example. Realtors are increasingly using advanced technology such as streaming video and virtual tours, and use of these interactive technologies is likely to grow.³⁴ If broadband providers can charge premiums to a real estate company to deliver services that homebuyers increasingly expect, the use of innovative technologies may be chilled to the detriment of businesses and consumers alike.

Portions of the economy as diverse as education and healthcare may also be adversely effected. Just as an explosion in massive open online courses and education has begun offering

³³ *Id.* ¶ 126.

³⁴ See National Association of Realtors, *Business/Net Neutrality Issue Summary*, available at <http://bit.ly/1pSShRD> (last accessed June 24, 2014); see also National Association of Realtors, *Net Neutrality Real Estate Impact*, available at <http://bit.ly/116Ja9P> (last accessed June 24, 2014).

new opportunities for innovative distance learning,³⁵ requiring educators to pay for access to prospective students would create a new tax on education and create new barriers for those trying to learn. Similarly, by allowing broadband Internet access service providers to charge telemedicine providers for access to their patients, the industry may face increased costs that may lead to underinvestment in innovative new medical treatments,³⁶ with the most vulnerable patients in our healthcare system facing increased costs and more limited services. These harms to students and patients would be particularly ironic – even as the Commission is promoting its E-Rate (education) and Rural Health Care programs,³⁷ it would be simultaneously undercutting innovation in the delivery of healthcare and education with inadequate open Internet protections.

The Commission has asked for comment on providers’ experiences with the “commercially reasonable” standard in the data roaming context.³⁸ Those experiences have not been positive. Smaller wireless carriers have brought to the Commission’s attention the difficulties they continue to experience in negotiating reasonable data roaming arrangements with Verizon and AT&T, even after the adoption of the data roaming rules.³⁹ T-Mobile, for example, asserts that its inability to obtain commercially reasonable roaming rates from certain carriers has forced it to throttle and cap its customers’ roaming data usage on those carriers’ networks.⁴⁰ To protect and promote the open Internet, the Commission should not adopt a

³⁵ See, e.g., Laura Pappano, *The Year of the MOOC*, New York Times (Nov. 2, 2012), available at <http://nyti.ms/Va0aHp> (last accessed July 7, 2014).

³⁶ See, e.g., Greg Slabodkin, *Net Neutrality Is Worth Preserving – For mHealth’s Sake*, FierceMobile Healthcare (Jan. 20, 2014), available at <http://bit.ly/TrNKsX> (last accessed July 7, 2014).

³⁷ See, e.g., Universal Service Administrative Company, *Homepage*, available at <http://www.usac.org> (last accessed June 24, 2014).

³⁸ *Open Internet NPRM* ¶ 123.

³⁹ *In the Matter of Application of Cricket License Company, LLC, et al., Leap Wireless International, Inc. and AT&T, Inc. for Consent to Transfer Control of Authorizations*, WT Docket No. 13-193, Memorandum Opinion and Order, DA 14-349 ¶ 104 (Mar. 13, 2014); *Petition for Expedited Declaratory Ruling of T-Mobile USA, Inc.*, WT Docket No. 05-265 at 6-9 (May 27, 2014) (“*T-Mobile Petition*”).

⁴⁰ *T-Mobile Petition*, Exhibit 1, Declaration of Dirk Mosa ¶ 10.

similar “commercially reasonable” standard to govern the practices of broadband Internet access service providers.

B. Title II Reclassification Will Ensure Technological Neutrality and Promote Broadband Competition.

The Commission should reclassify the transmission component of broadband Internet access service as a Title II service but retain the information service classification for Internet service itself. Prior to the reclassification of broadband Internet access services adopted in the *Wireline Broadband Order*,⁴¹ the Commission classified (and regulated) the transmission component of wireline broadband Internet access service as a common carrier telecommunications service pursuant to Title II of the Act and the Internet access service as an information service. This reclassification came on the heels of the Commission’s determination that cable modem Internet access service is an integrated information service with no severable telecommunications service component and therefore is not subject to Title II regulation. The Commission’s information service classification for cable modem Internet access service was affirmed by a divided Supreme Court and over the strong dissent of Justices Scalia, Souter and Ginsburg.⁴² The Court held that the Commission’s determination was a “reasonable policy choice,” though not the only permissible one.

Before the D.C. Circuit’s decision in *Verizon v. FCC*, Chairman Wheeler expressed his strong support for the Open Internet rules. In a speech given at the Computer History Museum

⁴¹ *In re Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities*, Report & Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853 (2005); *In re Appropriate Framework for Broadband Access To The Internet Over Wireless Networks*, Declaratory Ruling, 22 FCC Rcd 5901 (2007).

⁴² *National Cable Telecommunications Association v. Brand X Internet Services, Inc.*, 545 U.S. 967 (2005). Justice Scalia found that the telecommunications component of cable modem service retains such an independent identity from Internet access service that it must be regarded as a separate offering and that the FCC exceeded its statutory authority in ruling otherwise. Justice Stevens, in a concurring opinion, stated that “I believe the Federal Communications Commission’s decision [to exempt cable broadband providers from Title II regulation] falls within the scope of its statutorily delegated authority – though perhaps just barely.” *Id.* at 1003.

just a week before the court's decision, he said that "today's entrepreneurs need to have a fair opportunity to reach their customers over the biggest technological channel of them all – the Internet. Public policy should protect the great driving force of the open Internet: how it allows innovation without permission. This is why it is essential that the FCC continue to maintain an open Internet and maintain the legal ability to intervene promptly and effectively in the event of aggravated circumstances."⁴³ Reclassifying the transmission component of Internet access service as a Title II service would give the Commission the anti-discrimination and anti-blocking tools necessary to maintain an open Internet while retaining the information service classification of Internet service itself. Adopting this solution would protect the Internet itself from regulation, but would allow the Commission to put in place consumer protection measures that would ensure that end users can continue to use the telecommunications service to access the Internet content of their choice and that they are not restricted to the content selected by their broadband providers.

End users pay their broadband providers for access to the Internet, and broadband providers may be able to exercise bottleneck control over the local access facilities necessary to reach the end user.⁴⁴ While theoretically an end user may be able to switch broadband providers (if there is an alternative available), edge providers may face a bottleneck monopoly from the broadband provider that serves the end user. Control of the bottleneck local access facilities gives broadband providers market power,⁴⁵ which, absent regulation, can be used to suppress the

⁴³ Tom Wheeler, Chairman, Federal Communications Commission, Speech at the Computer History Museum (January 9, 2014) ("*Wheeler Speech*").

⁴⁴ See, e.g., *Open Internet Order* ¶ 24.

⁴⁵ In his January 9, 2014 speech at the Computer History Museum, Chairman Wheeler recognized that the high fixed costs of broadband networks and their very large minimum efficient scale "raises the distinct possibility that the owners and operators of such networks possess, at the least, some local market power," and that it is essential that the Commission have power to intervene and "forestall their exploitation by unacceptable acts." *Wheeler Speech*. The monopoly control that broadband providers may have over access to their end users

delivery of information to their end users, block access to certain content and content providers, and thereby deny consumers the right to access the free and open Internet. If the Commission were to reclassify the transmission component of broadband Internet service as a Title II service and reinstate the *Computer Inquiry* rules, broadband providers would have to give third-party Internet service providers access to their transmission facilities on a common carrier basis. Affording such access would promote the development of competition in the Internet access or information service component of broadband service and minimize the need for regulation of the Internet service itself.

As the transition to an all-IP network moves forward, the number of services, including last-mile access services, that incumbents will attempt to classify as information services not subject to regulation will continue to grow. Common carrier regulation of the underlying transmission component will ensure that providers that do not own last-mile facilities continue to have access to the transmission components necessary to reach their end users no matter how incumbents classify the service(s) that they provide over the same or similar facilities.

The Commission has appropriately found that Title II “advance[s] critically important national objectives.”⁴⁶ Indeed, according to the Commission, “many of the obligations that Title II imposes on carriers or LECs generally, including interconnection obligations under [S]ection 251(a)(1) . . . *foster the open and interconnected nature of our communications system*, and thus promote competitive market conditions.”⁴⁷ Reclassifying the transmission component of

provides an even stronger reason for the Commission to step in and forestall exploitation of that monopoly power.

⁴⁶ *In the Matters of Petition of the Embarq Local Operating Companies for Forbearance Under 47 U.S.C. § 160(c) from Application of Computer Inquiry and Certain Title II Requirements*, Memorandum Opinion and Order, 22 FCC Rcd 19478 ¶ 64 (2007).

⁴⁷ *Id.* ¶ 60 (emphasis added).

broadband Internet access service as a telecommunications service would promote competition and the Internet openness that the Commission seeks to encourage with its proposed rules.⁴⁸

Outside of a few isolated pockets, sufficient wireline broadband competition barely exists. As the Commission explained in its *Notice*, in many areas of the country, consumers can only choose between one or two fixed providers.⁴⁹ According to the Commission's latest data, about 45% of the population lives in census tracts where there are only one or two wireline providers offering speeds greater than 6 Mbps downlink.⁵⁰ Moreover, these already discouraging statistics overstate the number of wireline broadband options available because providers do not offer service uniformly throughout a census tract (e.g., a given apartment building within a census tract may only offer service from one wireline provider).⁵¹ Monopoly or duopoly wireline broadband service is antithetical to a robust competitive marketplace and cannot deliver the price and innovation benefits of competition.⁵²

⁴⁸ While COMPTTEL supports Title II classification for the transmission component of broadband Internet access service, COMPTTEL also supports the Commission's proposal to continue recognizing the distinction between residential services and enterprise services, "which are typically offered to larger organizations through customized or individually negotiated arrangements" and thus not subject to the proposed Open Internet Rules. *Open Internet NPRM* ¶ 58.

⁴⁹ *Open Internet NPRM* ¶ 48 (citing NTIA and Federal Communications Commission, National Broadband Map, www.broadbandmap.gov (last visited June 25, 2014)).

⁵⁰ FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, *Internet Access Services: Status as of June 30, 2013* at 9 (June 2014), available at <http://bit.ly/1jDQNVG> (last visited July 7, 2014) ("*Internet Access Services Report*"). While the Commission has most recently benchmarked broadband as a service that offers speeds of at least 4 Mbps download and 1 Mbps upload, the Commission's current data is not collected based on that definition. *See id.* at 4 n.5 (citing *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, Report, 25 FCC Rcd 95560, ¶¶ 11, 20 (2010)). More than one-fifth of consumers live in census tracts where there are only one or two options for download speeds greater than 3 Mbps (1 Mbps slower than the Commission's defined broadband speed). *Id.* at 9.

⁵¹ *See id.* at 10 ("[W]e emphasize that such providers may not necessarily offer services at those speeds everywhere in the census tract.").

⁵² *See, e.g., Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Phoenix, Arizona Metropolitan Statistical Area*, Memorandum Opinion and Order, 25 FCC Rcd 8622 ¶ 30 (2010) ("*Phoenix Forbearance Order*") ("Under a variety of theoretical models, based on realistic assumptions, prices in markets with few dominant firms are likely to be higher than prices in competitive markets."); *see also Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Deployment of Wireline Services*

Unfortunately, there are significant impediments to increasing facilities-based competition for wireline broadband service. As the Commission has explained, “competitive carriers face extensive economic barriers to the construction of last-mile facilities.”⁵³ In the words of the Supreme Court, “[a] newcomer could not compete with the incumbent carrier to provide local service without coming close to replicating the incumbent’s entire existing network, the most costly and difficult of which would be laying down the ‘last mile’ of feeder wire, the local loop, to the thousands (or millions) of terminal points in individual houses and businesses.”⁵⁴

Moreover, while mobile wireless services offer some additional alternatives for end users, the capacity limitations of mobile networks and mobile broadband plans do not offer enough end users a sufficient competitive substitute for wireline broadband Internet access service. As the Commission found at the time of the *Open Internet Order* in 2010, the future of mobile Internet access service as a competing substitute for wireline broadband “remained unclear.”⁵⁵ Nearly four years later, costs of mobile data plans, caps on usage, and limits on quality indoor coverage indicate that it remains at best a backup alternative. For instance, as of mid-2013, 46.2% of mobile connections provided downstream speeds less than 3 Mbps (and nearly two-thirds of connections provided downstream speeds less than 6 Mbps).⁵⁶ Costs to stream video – one of the primary drivers of growing Internet traffic – remain prohibitive on most mobile devices. For instance, one major carrier offers service plans charging between roughly \$7.50 and \$15.00 per month for each additional gigabyte increase in data cap (with an

Offering Advanced Telecommunications Capability, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd 16978 ¶¶ 85-91 (2003) (analyzing the barriers to entry).

⁵³ See, e.g. *Phoenix Forbearance Order* ¶¶ 72, 84.

⁵⁴ *Verizon Commc’ns Inc. v. FCC*, 535 U.S. 467, 490 (2002).

⁵⁵ *Open Internet NPRM* ¶ 42 (citing *Open Internet Order* ¶¶ 32-33).

⁵⁶ See *Internet Access Services Report* at 7.

HD movie using up to 2.3 GB per hour).⁵⁷ Similarly, even mobile carriers that offer attractive unlimited data plans may have to limit speeds of customers who use 5GB of data or more per month.⁵⁸

Title II reclassification offers the Commission a strategy for addressing this lack of competition in the wireline broadband market when facilities-based competition is cost-prohibitive. By requiring facilities-based broadband providers, including cable broadband providers, to provide wholesale access on a just, reasonable, and nondiscriminatory basis, the Commission can enable competitors to offer a wider array of alternative broadband Internet access services. As the Commission explained in the National Broadband Plan, the Commission should “comprehensively review its wholesale competition regulations . . . to ensure widespread availability of inputs for broadband services.”⁵⁹ The Commission has seen the benefits of encouraging wholesale access in the Internet space before – prior to the line of decisions, starting with the *Cable Modem Declaratory Ruling* in 2002,⁶⁰ which removed Internet transmission service from Title II, the Commission had promoted a diverse and competitive Internet service provider space where customers had several Internet service providers to choose from. The Commission has the opportunity to enable further advances in the Internet market by reclassifying the transmission component of broadband Internet service here.

Reclassifying the transmission component of broadband Internet access service as a Title II service would also end the discriminatory Universal Service Fund (“USF”) surcharge imposed

⁵⁷ See, e.g., AT&T, *AT&T Mobile Share ® Value Plans with Unlimited Talk and Text*, available at <http://www.att.com/shop/wireless/plans/mobileshare.html> (last accessed June 25, 2014).

⁵⁸ See, e.g., Sean Buckley, *Sprint Is Ready to Throttle Its Unlimited Data Plans, But Only in ‘Congested’ Areas*, Engadget (May 8, 2014), available at <http://bit.ly/1mqb6ug> (last accessed July 7, 2014).

⁵⁹ *Connecting America: The National Broadband Plan for Our Future*, Recommendation 4.7, 48 (2010), available at <http://1.usa.gov/1yMZ8A1> (last accessed July 7, 2014).

⁶⁰ *Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities et al.*, Declaratory Ruling and Notice of Proposed Rulemaking, 17 FCC Rcd 4798 (2002).

on competitive carriers that lease special access facilities as inputs for broadband Internet access services. Currently, under the Commission's rules for special access broadband Internet services, whether a carrier must pay USF charges turns solely on whether the carrier provides the services using its own facilities or leases those facilities. If the carrier providing service *owns* the underlying transmission facility, no USF assessment is imposed on the transmission facility or on the Internet access service. If the carrier *leases* the transmission facility to provide broadband Internet access service, the carrier is treated as an end user and must pay double-digit USF charges on the transmission component.⁶¹ As COMPTTEL and others have explained, "carriers that lease wholesale transmission inputs for their retail broadband Internet access services are at a distinct financial disadvantage to carriers that provide Internet access services over their own facilities,"⁶² because they must pay roughly an additional 16% in USF fees.⁶³ No defensible technical or policy rationale exists to make a carrier's USF liability contingent on whether the transmission component is owned or leased. Whether provided over owned or leased facilities, broadband Internet access services are fundamentally the same and should be treated the same under the Commission's USF rules.

The Commission also asks for comment on whether broadband provider's service to edge providers should be separately defined and subject to Title II regulation.⁶⁴ The broadband provider furnishes the transmission path used by the edge provider to respond to requests for data or content from the end user. Classifying this portion of the service as a Title II common carrier

⁶¹ See generally *In the Matter of AT&T, Inc., CenturyLink, SureWest and Verizon Petition for Clarification, or In the Alternative, for Partial Reconsideration*, Order, 27 FCC Rcd 13780 (2012).

⁶² See *Ex Parte* Letter from Mary C. Albert,,COMPTTEL, to Marlene H. Dortch, Docket No. 06-122 (Sept. 6, 2013).

⁶³ See, e.g., *Proposed Third Quarter 2014 Universal Service Contribution Factor*, Public Notice, Docket No. 96-45, DA 14-812 (June 12, 2014).

⁶⁴ *Open Internet NPRM* ¶¶ 151-52.

service would ensure that any lawful content requested by an end user could not be blocked and that access to the transmission path could not be provided in a discriminatory manner.

As the Commission recognizes, competition alone is unlikely to ensure that the Internet remains open. Even where there is competition, switching costs and incomplete customer information are a deterrent for subscribers to seek out a new broadband Internet access service, which effectively may create a terminating monopoly for broadband providers.⁶⁵ Moreover, as Professor Barbara van Schewick explained, “network providers in markets that are more competitive than the market for wireline, fixed Internet service in the US have engaged in blocking or discrimination.”⁶⁶ Indeed, competition may even “increase Internet providers’ incentives to block or discriminate.”⁶⁷ With these incentives, it is no surprise that the European Union, which previously relied on competition, decided to implement net neutrality rules.⁶⁸

C. Employing a Light-Touch Regulatory Approach Through Forbearance Avoids the Risk of Overregulation.

The Commission’s forbearance authority is more than adequate to prevent any regulatory overreach following Title II classification of the transmission component of broadband Internet access. This “light-touch” Title II regulatory approach has proved successful for wireless providers. In 1993, when commercial mobile radio services (“CMRS”) were still in their early stages, Congress adopted Section 332(c)(1)(A) of the Communications Act, which provides that although Title II applies to CMRS, the Commission may forbear from enforcing any provision of

⁶⁵ *Id.* ¶ 42.

⁶⁶ *See Ex Parte* Letter from Barbara van Schewick to Marlene H. Dortch, Secretary, Federal Communications Commission, Docket Nos. 09-191, 14-28, 7 (Mar. 4, 2014).

⁶⁷ *Id.*; *see also* Alissa Cooper, *How Regulation and Competition Influence Discrimination in Broadband Traffic Management: A Comparative Study of Net Neutrality in the United States and the United Kingdom*, Thesis (2013), available at <http://www.alissacooper.com/phd-thesis/> (last accessed July 7, 2014) (providing insights into the limited ability of competition to discipline Internet service providers).

⁶⁸ *See, e.g.*, Emma Woollacott, *Europe Votes for Net Neutrality in No Uncertain Term*, *Forbes* (Apr. 3, 2014), available at <http://onforb.es/1qwAejv> (last accessed July 7, 2014).

the title other than Sections 201, 202, and 208.⁶⁹ Under this framework, the Commission decided against applying the most burdensome Title II regulations but retained those that continued to benefit consumers. This forbearance framework for wireless has been so successful that in 2001, Tom Tauke, Verizon’s Senior Vice President for Public Policy and External Affairs, told the House Judiciary Committee that “this approach produced what is arguably one of the greatest successes in this industry in the last twenty years – the growth of wireless services” – and it “will work” for wireline broadband as well.⁷⁰

To ensure a successful “light-touch” framework, the Commission could continue to apply only core Title II provisions to the transmission component that will promote competition and benefit consumers, and forbear from enforcing legacy regulations that would not promote these benefits. For example, the Commission can protect consumers and promote fair competition by retaining Sections 201, 202, and 208.⁷¹ Likewise, retaining Section 254 will allow the Commission to ensure regulatory parity in USF contributions and promote support for Internet connectivity.⁷² The Commission could extend privacy protections through application of its customer proprietary network information (“CPNI”) rules in Section 222.⁷³ Application of Sections 251 and 252 would ensure just and reasonable interconnection costs and could prevent Internet service providers from exacting a toll on edge providers. Retaining the provisions in Section 214(a)(3) that require Commission approval prior to discontinuance of service would afford protections for consumers threatened with the loss of Internet access service. And the Commission should continue applying the provisions of the Communications Assistant for Law

⁶⁹ See, e.g., *Framework for Broadband Internet Service*, GN Docket No. 10-127, Notice of Inquiry, 25 FCC Rcd 7866 ¶ 75 (2010) (“2010 NOI”); see also 47 U.S.C. § 332(c)(1)(A).

⁷⁰ See Austin Schlick, General Counsel, FCC, *A Third-Way Legal Framework for Addressing the Comcast Dilemma* (May 6, 2010), available at <http://1.usa.gov/11WEGIS>, (last accessed July 7, 2014) (“A Third Way”).

⁷¹ See 2010 NOI ¶ 66.

⁷² *Id.*

⁷³ *Id.*

Enforcement Act under Section 229.⁷⁴ Continuing to implement these provisions while forbearing from enforcing other regulations will promote a successful light-touch framework.

In particular, Title II treatment is especially necessary to ensure non-discriminatory access for purposes of Internet traffic exchange for edge providers, transit providers, and CDNs in reaching the end user at reasonable costs. If broadband providers can engage in discriminatory conduct under a commercially reasonable Section 706 standard, then broadband providers can continue to allow interconnection points to become congested until they receive whatever price they demand from CDNs, transit providers, and edge providers. Just as the Commission has determined it necessary to ensure non-discriminatory traffic exchange in other contexts, including by regulating switched access, exchange access,⁷⁵ and wireless provider access under Title II,⁷⁶ Internet traffic exchange should be required on a non-discriminatory basis. In treating Internet traffic exchange under Title II, the Commission should retain network interconnection requirements, and interconnection for Internet traffic exchange should be just, reasonable, and non-discriminatory.⁷⁷

Adopting such a non-discrimination requirement, moreover, would effectively codify the current industry standard of settlement-free peering for Internet traffic exchange (i.e., each party pays to deliver its traffic to the interconnection point).⁷⁸ By requiring just, reasonable, and non-discriminatory interconnection, broadband Internet service providers would no longer be able to

⁷⁴ See also *Communications Assistance for Law Enforcement Act and Broadband Access and Services*, First Report and Order and Further Notice of Proposed Rulemaking, 20 FCC Rcd 14989 ¶ 10 (2005) (interpreting broadband providers to be within Section 229's definition of telecommunications carrier for purposes of CALEA).

⁷⁵ See, e.g., 47 C.F.R. §§ 153(20), 153(32), 201, 202.

⁷⁶ See *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, First Report and Order, 11 FCC Rcd 15499 ¶ 993 (1996) ("CMRS providers are telecommunications carriers and are thus obligated to comply with [S]ection 251(a).").

⁷⁷ Cf. 47 U.S.C. § 251(c)(2) (requiring ILECs to provide interconnection on rates, terms, and conditions that are just, reasonable, and nondiscriminatory).

⁷⁸ See, e.g., *USF/ICC Transformation Order* ¶ 737.

allow interconnection points to become congested in an effort to extract payments from transit and edge providers. Similarly, as described above, Title II treatment of Internet traffic exchange would be consistent with the Commission’s transition to the “bill-and-keep” regime in the ICC context.

D. While Title II Reclassification Provides Sounder Footing, If the Commission Proceeds Under Section 706, It Should Ensure Competitor and Edge Provider Access to Broadband Networks on Just and Reasonable Terms.

The Commission’s statutory authority to promulgate its proposed open Internet rules under Section 706 of the Telecommunications Act remains very much subject to challenge. Far from providing regulatory certainty, the ultimate contours of the FCC’s affirmative authority under Section 706 remain unclear,⁷⁹ and any rules will likely be challenged yet again by broadband Internet access providers. Meanwhile, the Commission has expansive authority under Title II, and adopting the proposed open Internet rules would be well within its Title II authority.⁸⁰

If the FCC opts to proceed under Section 706, it should ensure that the Section 706 framework is extended to Internet traffic exchange to help ensure the “open, *end-to-end* architecture” of the Internet, which drives today’s Internet economy.⁸¹ Just as the Commission (and the D.C. Circuit) recognized that Section 706 gives the Commission legal authority to adopt the open Internet rules because an open Internet will encourage broadband adoption, so too does Section 706 allow the Commission extend those rules to interconnection points in order to

⁷⁹ See generally *Verizon v. FCC*, 740 F.3d 623.

⁸⁰ See, e.g., Letter from Rep. Henry Waxman, Ranking Member, Committee on Energy and Commerce, to Thomas Wheeler, Chairman, Federal Communications Commission at 2 (May 14, 2014), available at <http://1.usa.gov/TkOmAj> (explaining that “[t]here is legal consensus that the FCC has authority to adopt these rules if the FCC reclassified broadband Internet . . . as a telecommunications service under Title II” and advocating that the Commission do so as a backstop); see also Austin Schlick, General Counsel, FCC, *A Third-Way Legal Framework for Addressing the Comcast Dilemma* (May 6, 2010), available at <http://1.usa.gov/IIWEGIS> (last visited July 7, 2014).

⁸¹ See *Open Internet NPRM* ¶ 1 (emphasis in original).

promote broadband deployment.⁸² Indeed, protecting the openness not only of last-mile access but also of the interconnection point is fundamental to protecting the open nature of the Internet.⁸³

As Chairman Wheeler recently stated, “[w]hen a consumer buys specified capacity from a network provider he or she is buying open capacity, not capacity the network can prioritize for its own profit purposes.”⁸⁴ An open Internet means that end users should be able to obtain any lawful content from any point on the Internet at the capacity and speed they purchase from their broadband Internet access service provider. To adequately protect that right, the Commission must protect both the consumer’s last-mile access *and* their rights at the point of interconnection. If, for example, only last-mile access is protected, last-mile providers can allow traffic to become excessively congested at the interconnection point, thus enabling them to demand payments from CDNs, transit providers, and edge providers to deliver traffic to their customers. Indeed, because last-mile access and interconnection are deeply interrelated in this manner, the Commission should incorporate interconnection protections within the rules adopted in this proceeding, as described further below.

There is extensive evidence that ensuring competitor access to interconnection and last-mile facilities on just, reasonable, and non-discriminatory terms promotes deployment of advanced services. Competitors’ entry into the communications marketplace was made possible by the Telecommunications Act of 1996, and upon entering the market, they have driven technological innovation and created economic growth through competitive voice, video, and

⁸² See *Id.* ¶¶ 143-48; *Verizon v. FCC*, 740 F.3d at 636-42.

⁸³ See *Wheeler Statement on Broadband*; see also JONATHAN E. NUECHTERLEIN & PHILIP J. WEISER, *DIGITAL CROSSROADS: TELECOMMUNICATIONS LAW AND POLICY IN THE INTERNET Age* 214-15 (2013) (explaining that last-mile access and last-mile interconnection are deeply related and that it is likely not possible to protect one without protecting the other).

⁸⁴ *Open Internet NPRM* at 86; *Statement of Chairman Tom Wheeler*.

data offerings and the development of next-generation, IP-based networks and services.⁸⁵ Based on this record, the Commission has ample authority to encourage advanced services deployment through measures that promote competition in the local telecommunications marketplace under Section 706 – by promoting competitor access, the Commission will “encourage the deployment . . . of advanced telecommunications capability to all Americans.”⁸⁶ The Commission should ensure that the benefits of competitive access to last-mile facilities continue as the public switched telephone network transitions from TDM to IP technology.

III. PROTECTING OPEN INTERNET TRAFFIC EXCHANGE GOES HAND-IN-HAND WITH PROTECTING LAST-MILE END USER INTERNET ACCESS.

As Chairman Wheeler recently recognized, “at the heart” of protecting Internet consumers “is whether Internet Service Providers (ISPs) that provide connectivity in the final mile to the home can advantage or disadvantage content providers, and therefore advantage or disadvantage consumers.”⁸⁷ While the Commission recognizes the centrality of interconnection to open Internet issues, it has tentatively concluded not to address Internet traffic exchange and Internet interconnection within the scope of this proceeding.⁸⁸ However, to adequately ensure that the Internet remains open and that consumers are delivered the broadband speeds that they are promised, the Commission must at the very least commit to taking a hard look at potentially anticompetitive Internet traffic exchange practices.

The same economic forces that threaten the openness of consumer’s last-mile broadband connection are present at the point of interconnection. As the Commission found in the 2010 *Open Internet Order*, broadband providers can be gatekeepers with terminating monopolies over

⁸⁵ See, e.g., Letter from Sarah De Young, Executive Director, CALTEL, et al., to Chairman Tom Wheeler, Docket Nos. 05-25, 10-90, 12-353, & 13-5 (Nov. 7, 2013).

⁸⁶ See 47 U.S.C. § 1302.

⁸⁷ *Chairman Wheeler Statement on Broadband*.

⁸⁸ *Open Internet NPRM* ¶ 59.

last-mile access to end users.⁸⁹ With monopoly power, broadband providers can exact tolls at the point of interconnection to ensure there is adequate capacity to deliver traffic to end users at the speeds for which they pay.

Increasingly, certain last-mile providers are exercising monopoly power by requiring transit or edge providers to pay for direct interconnection to ensure that the Internet service their end users pay for adequately delivers the content they desire. Transiting, interconnection, and Internet traffic exchange have evolved significantly over the past several decades. In the early days of the Internet, peering and related traffic exchange practices were relatively straightforward, and disputes, which occurred infrequently, were settled on a commercial basis. More recently, certain broadband Internet access service providers have engaged in interconnection and traffic exchange practices with a peer, transit provider, CDN, or edge provider that may reflect the exercise of market power by the broadband provider. As Chairman Wheeler explained, “recent disputes between Netflix and ISPs such as Comcast and Verizon have highlighted this issue.”⁹⁰ According to Netflix, Level 3, Cogent, and others, broadband providers are allowing points of interconnection to become congested by refusing to upgrade interconnection capacity (i.e., increase the number of ports), unless the edge provider or transit provider pays a fee.⁹¹ As the edge provider’s traffic continues to increase, the interconnection point becomes at or above capacity, and the consumer begins to experience degraded service through, for example, slower download times, increased buffering, or decreased streaming quality. The broadband provider will not increase capacity until the transit or edge provider pays

⁸⁹ See *Id.* ¶ 42.

⁹⁰ *Chairman Wheeler Statement on Broadband.*

⁹¹ See, e.g., Letter from Joseph C. Cavender, Vice President, Federal Affairs, Level 3, to Marlene H. Dortch, Secretary, FCC, Docket No. 14-28 (May 13, 2014) (“*Cavender Letter*”); *Wright Letter* at 3; Letter from Hershel Wancjer, Counsel to Cogent, to Marlene H. Dortch, Docket No. 14-28 (Apr. 1, 2014).

the demanded fee. This fee is especially troubling considering the traditional Internet norm of settlement-free peering. While the Commission determined in the 2010 *Open Internet Order* that it was not permissible for Internet service providers to charge content, application, or service providers a fee to avoid being blocked,⁹² last-mile-providers have sought to leverage their dominant positions at the point of interconnection to levy access fees.⁹³

The Commission should remain vigilant and should be prepared to step in and investigate when broadband Internet access service providers leverage their bottleneck control over access to the end user to distort the market for peering and transit services. The Internet transit market is intensely competitive, with market prices for transit falling year over year and offering more bandwidth for less cost. For example, Cogent CEO Dave Schaeffer explained that Cogent has lowered its prices for data transit by about 22 percent per year, *each year*, for the past five years.⁹⁴ At the same time, last-mile Internet service providers may leverage their bottleneck control to extract fees from CDNs, transit providers, and edge providers for access to their end users. As Netflix, for example, explains, “Comcast has allowed its links to Internet transit providers like Level 3, XO, Cogent and Tata to clog up, slowing delivery of movies and TV shows to Netflix users.”⁹⁵ Dominant bottleneck providers may be harming an otherwise competitive transit marketplace by imposing new costs for Internet traffic exchange.

⁹² *Open Internet Order* ¶ 67.

⁹³ Relatedly, large ILECs continue to refuse to enter into interconnection agreements pursuant to Section 251 of the Act for managed VoIP, under the premise that VoIP interconnection agreements do not fall under Title II. As COMPTTEL has explained elsewhere, until the FCC confirms that ILECs must comply with Title II with regard to managed VoIP, ILECs will continue to refuse to enter interconnection agreements. *See, e.g.*, Comments of COMPTTEL, Docket No. 13-5 (July 8, 2013). Whether or not the Commission finds that Internet traffic exchange falls under Title II, it should, at the very least, affirm that managed VoIP interconnection is required under Title II.

⁹⁴ *See Schaeffer Testimony* at 3.

⁹⁵ Ken Florance, Vice President of Content Delivery, Netflix, *The Case Against ISP Tolls* (Apr. 24, 2014), available at <http://blog.netflix.com/2014/04/the-case-against-isp-tolls.html> (last accessed July 7, 2014).

To the extent that last-mile providers with market power are extracting access charges from edge providers and transit networks, the charges are tantamount to a tax on edge providers, transit providers, and end users. To be clear, this tax does not provide any priority service to reach consumers – it is solely a fee for interconnection so that consumers receive the content they request at the speeds they already paid for.⁹⁶ Last-mile bottleneck providers are able to extract monopoly rents from innovators on the edge and others. These providers are able to hide fees by leveraging their access to the end-user and exacting charges on CDNs, transit providers, and edge providers.

In an effort to protect Internet traffic exchange, the Commission should make clear that it will not tolerate anticompetitive practices, which may include the following:

- *Refusal to Expand Interconnection.* A broadband Internet service provider cannot refuse to provision enough capacity at the point of interconnection (i.e., ports) to handle Internet exchange traffic being delivered to its network that its end users have requested. Failing to do so denies end-users access to the speeds that they have paid for and allows broadband providers to extract additional revenues from transit and/or edge providers to relieve congestion that should not have occurred in the first place.
- *Charges for Interconnection.* Settlement-free interconnection (i.e., neither party pays the other in association with the exchange of traffic at mutually agreed upon interconnection points) is generally the industry standard. The imposition of charges to exchange Internet traffic could be anticompetitive.
- *Preferred Interconnection Arrangements.* Any preference or advantage in Internet traffic exchange offered to some providers over others, such as providing favored interconnection locations or rates, may also be anticompetitive. Edge providers will likely incur significant transaction costs negotiating agreements with one or more broadband providers to reach customers who are already paying the broadband provider to be able to access the edge providers' services.

⁹⁶ See, e.g., *Wright Letter* at 3 (“[W]e don’t pay for priority access against competitors, just for interconnection.”); *Cavender Letter* at 2 (“[T]he tolls that these ISPs seek from providers like Level 3 are charges imposed simply to make available adequate interconnection capacity to support common, everyday Internet content (including streaming video), which the ISPs have offered to make available to their customers, and which those customers have then requested.”).

- *Paid Prioritization.* Any paid prioritization arrangement (i.e., allowing any edge provider or transit provider preferred access to end users, including increased bandwidth along the last-mile connection) should be examined.⁹⁷ As explained above and as explained at great length in the *2010 Open Internet Order*, paid prioritization risks grave harm to edge providers and innovation.⁹⁸ For instance, paid prioritization could raise barriers to entry on the Internet by requiring fees from edge providers, and would also create an incentive for broadband providers to limit the quality of service provided to non-prioritized traffic.⁹⁹

By alerting the public and the industry that it is prepared to closely examine and investigate any potential anticompetitive practices in the exchange of Internet traffic, the Commission can help ensure that the Internet remains open from end-to-end.

IV. THE COMMISSION’S RULES MUST ENSURE TRANSPARENCY IN INTERNET TRAFFIC EXCHANGE, NETWORK MANAGEMENT PRACTICES, AND NETWORK PERFORMANCE.

As noted by the Commission and others, effective disclosure of broadband providers’ network management practices, performance, and commercial terms of service can promote competition and innovation in a number of ways.¹⁰⁰ For instance, by allowing the Internet community to identify problematic conduct and to suggest fixes, effective disclosure can play an important role in curbing abuses by broadband providers.¹⁰¹ As the Commission has found, transparency “increases the chances that harmful practices will not occur in the first place and that, if they do, they will be quickly remedied, whether privately or through Commission oversight.”¹⁰²

⁹⁷ While the Commission has not treated paid prioritization as an issue of interconnection, we discuss paid prioritization here because allowing paid prioritization risks the same harms to edge and transit providers as allowing broadband providers to exact interconnection tolls. *See, e.g., Open Internet Order* ¶ 76 (detailing the harms of paid prioritization and explaining that “it is unlikely that pay for priority would satisfy the ‘no unreasonable discrimination’ standard”).

⁹⁸ *See Open Internet Order* ¶¶ 24-28, 76.

⁹⁹ *Id.*

¹⁰⁰ *See, e.g., id.* ¶ 53; *Open Internet NPRM* ¶ 66; Comments of Cricket, GN Docket No. 09-191, WC Docket No. 07-52 at 4 (Jan. 14, 2010).

¹⁰¹ *See, e.g., Open Internet Order* ¶ 53.

¹⁰² *Id.*

To help ensure effective disclosure, the FCC’s transparency rules should incorporate provisions designed to shed light on the exchange of Internet traffic and on broadband providers’ network management practices and network performance. In doing so, the Commission’s rules could help prevent abusive practices in this increasingly important market, and also allow edge providers and end users to understand and evaluate both their experiences and options with regard to broadband Internet access service. As highlighted recently by both Chairman Wheeler’s statement and an FCC Blog Post by Julie Knapp and Walter Johnston, “problems” in this area have become a source of contention and confusion; neither the Commission nor consumers know the exact cause(s) or who is to blame, and stakeholders need to “look under the hood . . . to get to the bottom of this.”¹⁰³

Accordingly, COMPTTEL recommends that the Commission’s transparency rules require broadband providers to disclose:

1. *The terms and conditions that apply to their exchange of Internet traffic with CDNs, transit providers, and other broadband providers – including whether and what charges are imposed.* Disclosure of this information is critical to a functioning interconnection market, and is necessary to ensure that the market’s participants comply with their obligations under Title II. Meanwhile, although the Commission has begun to request this type of information from broadband and content providers, it has not signaled that it will make the information public.¹⁰⁴ Edge providers and end users must also have access to it if they are to play a role in holding broadband providers accountable under the Commission’s open Internet rules. Moreover, making such information publicly available would not prove burdensome for broadband providers – posting the information on their websites, for instance, would likely be sufficient.
2. *The types of traffic that are prioritized within the broadband provider’s network – including both Internet traffic and other types of traffic, such as specialized or managed IP service traffic – and the specific manner and degree of prioritization applied that uses the same last-mile facility as the broadband provider.* As explained above, the Commission should not permit paid prioritization for Internet traffic because, by

¹⁰³ See *Wheeler Statement on Broadband*; Julie Knapp and Walter Johnston, *Internet Traffic Exchange: Time to Look Under the Hood* (June 18, 2014), available at <http://www.fcc.gov/blog/internet-traffic-exchange-time-look-under-hood> (last accessed July 7, 2014).

¹⁰⁴ See *Wheeler Statement on Broadband*.

definition, it threatens the fundamental openness of the Internet. However, to the extent that paid prioritization is allowed, broadband providers should be required to disclose enough information to allow edge providers and end users to assess its “commercial reasonableness.”¹⁰⁵ Additionally, the Commission should adopt the following definition of “specialized services,” which is modeled after the European Parliament’s definition:¹⁰⁶ “an electronic communication service optimized for specific content, applications or services, or a combination thereof, provided over logically distinct capacity, relying on strict admission control, offering functionality requiring enhanced quality from end to end, and that is not marketed or usable as a substitute for Internet access service.”

3. *Charges, if any, for prioritization of traffic – including the amount of any such charges, which entities are charged, and whether those entities are edge providers or end users.* Knowing how much broadband providers charge for traffic prioritization will also help the Commission, edge providers, and end users assess the commercial reasonableness of these arrangements.
4. *Practices and policies for increasing a broadband provider’s network capacity for Internet traffic exchange – including information about whether and which entities are charged to increase such capacity, and when requests to increase capacity are refused.* This information will provide the Commission, edge providers, and end users with a peek “under the hood” and some insight into whether a broadband provider maintains a sufficient number of on-ramps onto its network to meet demand.
5. *Practices and policies for managing network congestion.* As the *Open Internet Order* notes, effective disclosure includes “descriptions of congestion management practices; purposes served by practices; practices’ effects on end users’ experience; criteria used in practices, such as indicators of congestion that trigger a practice, and the typical frequency of congestion; usage limits and the consequences of exceeding them; and references to engineering standards, where appropriate.”¹⁰⁷
6. *Which websites, content, applications or other traffic the broadband provider blocks, along with its reasons for blocking them.* This information will help the Commission, edge providers, and end users enforce the no-blocking rule that the Commission has proposed to re-adopt.¹⁰⁸

¹⁰⁵ See, e.g., *Open Internet NPRM* ¶¶ 89-90.

¹⁰⁶ See Pilar del Castillo Vera, *Proposal for a Regulation of the European Single Market for Electronic Communications* (Mar. 26, 2014), available at <http://bit.ly/1ojhO4Z> (last accessed July 7, 2014).

¹⁰⁷ *Open Internet Order* ¶ 56.

¹⁰⁸ See, e.g., *NPRM* ¶ 61.

V. THE COMMISSION SHOULD ADOPT A RAPID DISPUTE RESOLUTION PROCESS AND ESTABLISH AN OMBUDSPERSON.

As the Commission notes, access to an effective dispute resolution process by edge providers and end users alike will be critical to protecting and promoting Internet openness.¹⁰⁹ To this end, the Commission asks whether it should adopt specific rules that allow for “rapid resolution of formal complaints.”¹¹⁰ COMPTTEL supports such an approach for both formal and informal complaints because, in this context, the benefits of adopting an expedited complaint process outweigh the costs. In particular, given the rapid pace of innovation and changing business models in Internet services, any dispute resolution process is unlikely to be effective *unless* it guarantees that complaints will be resolved in a timely and rapid manner. Moreover, rapid resolution of complaints will be especially important when broadband Internet access providers’ violations affect a “critical mass” of end users.

While the Commission acknowledged that it had received many informal complaints from consumers alleging violations of the Open Internet rules, it did not disclose whether it took any action in response to those complaints or what that action was.¹¹¹ A dispute resolution process is of little value unless the issue raised is actually resolved.

To help ensure that rapid resolution is available where it is needed the most, COMPTTEL proposes the following expedited review process for informal complaints. Where a complaint alleges that a broadband provider has violated the Commission’s open Internet rules, (1) that broadband provider shall be required to respond to the complaint within 30 days; and (2) the Commission shall take action to resolve the complaint within 90 days. Such a dispute resolution

¹⁰⁹ See, e.g., *Open Internet NPRM* ¶¶ 163, 174.

¹¹⁰ *Id.* ¶ 174.

¹¹¹ *Id.* ¶¶ 69, 161.

mechanism would provide the necessary legal certainty for broadband providers, end users and edge providers to better plan their activities in light of clear Commission guidance.¹¹²

Additionally, COMPTTEL supports the Commission's proposed creation of an ombudsperson to help promote the interests of edge providers and end users.¹¹³ As the Commission points out, these groups consist of individuals and companies that are "quite a bit smaller" than broadband providers.¹¹⁴ As a result, they lack the negotiating leverage of broadband providers, and may not have the resources necessary to take advantage of the Commission's formal dispute resolution processes. By serving as a "watchdog," an ombudsperson could monitor for wide-spread violations of the Commission's open Internet rules and also present the individual concerns of small businesses, start-ups, and consumers to broadband providers in a way that will not be ignored. In addition, by acting as an intermediary between the complainant and the broadband Internet access service provider, the ombudsperson could play an especially important role in protecting complainants against retaliation.

If the Commission creates an ombudsperson office, however, it should complement rather than replace the Commission's current dispute resolution processes. While potentially helpful in some situations, an ombudsperson would be no substitute for informal or formal complaint resolution by the Commission. In particular, complaints that affect a "critical mass" of end users should not be referred to the ombudsperson, but instead should have immediate access to the Commission's formal complaint process. Moreover, the Commission should clarify that access to its existing complaint processes in no way depends on seeking recourse through the ombudsperson. That is, no party should be *required* to seek resolution through the

¹¹² *Id.* ¶ 163.

¹¹³ *See id.* ¶ 171.

¹¹⁴ *Id.* (noting that only 17 broadband providers accounted for about 93 percent of U.S. retail subscribers in 2013).

ombudsperson prior to filing a complaint. Also, no party that does avail itself of the ombudsperson's services should be precluded from pursuing the Commission's complaint processes if dissatisfied with the results.

VI. CONCLUSION

Reinstating the open Internet rules will preserve the open framework that has made the Internet so successful. Rather than implementing a vague "commercially reasonable" standard for broadband provider practices, the Commission should reinstate the Title II classification for the transmission component of broadband Internet access service. At the same time, incorporating protections for edge providers and transit networks at points of interconnection will be critical to preventing broadband providers from making an end-run around last-mile openness rules and becoming the gatekeepers of the Internet. By fully preserving an open Internet – not just on the last-mile, but from end-to-end, the Commission will ensure that the Internet remains a driving force for innovation.

Respectfully submitted,

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