

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

In the Matter of)	
)	
Protecting and Promoting the Open Internet)	GN Docket No. 14-28
)	
Framework for Broadband Internet Service)	GN Docket No. 10-127
)	
)	

REPLY COMMENTS OF NETFLIX, INC.

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September 15, 2014

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EXECUTIVE SUMMARY

Three million public comments submitted in this proceeding have told the Commission to preserve and protect an open Internet. Edge companies, venture capitalists, and innovators have asked the Commission to adopt strong rules. Those rules must ensure that consumers can access Internet content and services of their choice without interference from broadband gatekeepers.

Large broadband providers promote a different vision for the Internet and advocate for rules that would allow them to charge content providers to create fast and slow lanes on the Internet. They argue for data caps that restrict Internet use. They defend the practice of charging terminating access fees, which if not paid, result in their own customers receiving content at speeds far less than the speeds for which they have paid. Their vision would constrain innovation and result in bandwidth scarcity.

The Commission has a clear choice between these two visions of the Internet's future. One would result in increasing Internet abundance and innovation. The other would lead to an ecosystem that increasingly mirrors cable television, where bandwidth is rationed, and where content can be degraded by the broadband provider's unilateral decisions.

Netflix firmly supports policies encouraging bandwidth abundance and Internet openness, as does the overwhelming majority of commenters in this proceeding.

In these reply comments Netflix urges the Commission to:

- prohibit blocking and pay-for-priority arrangements over the last mile;
- extend those protections to the interconnection points between terminating access networks and the broader Internet; and
- place those protections on a solid legal foundation that can withstand legal challenge.

The Commission has a statutory duty to encourage the reasonable and timely deployment of broadband. Adoption of clear and strong open Internet protections is the best way to support the virtuous circle of increasing investment in broadband networks and the applications that drive demand for faster, more affordable broadband access. Strong rules will set a foundation for the Internet's continued success as a platform for innovation and great storytelling.

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I. INTRODUCTION

Netflix, Inc. (“Netflix”) submits these reply comments in response to the Commission’s Notice of Proposed Rulemaking (“NPRM”) in the above-captioned proceeding.¹ A careful review of the comments submitted in this proceeding underscores the need for this Commission to protect consumers with strong Network Neutrality rules.

Nearly all commenters in this proceeding support protecting and promoting Internet openness.² Nearly all commenters also agree that the Commission should

¹ Promoting and Protecting the Open Internet, GN Docket No. 14-28, *Notice of Proposed Rulemaking*, 29 FCC Rcd. 5561, 5563 ¶ 4 (rel. May 15, 2014) (“*Open Internet on Remand NPRM*”).

² See, e.g., Comments of Time Warner Cable Inc., *filed in* GN Docket Nos. 14-28, 10-127, at 1 (filed Jul. 15, 2014) (“TWC Comments”); Comments of Comcast Corp., *filed in* GN Docket Nos. 14-28, 10-127, at 1-2 (filed Jul. 15, 2014) (“Comcast Comments”); Comments of Verizon and Verizon Wireless, *filed in* GN Docket Nos. 14-28, 10-127, at 1 (filed Jul. 15, 2014) (“Verizon Comments”); Comments of Vonage Holdings Corp., *filed in* GN Docket Nos. 14-28, 10-127, at ii (filed Jul. 18, 2014) (“Vonage Comments”); Comments of Public Knowledge, Benton Foundation, Access Sonoma Broadband, *filed in* GN Docket Nos. 14-28, 10-127, at 1 (filed Jul. 15, 2014) (“Public Knowledge Comments”); Comments of AOL Inc., *filed in* GN Docket Nos. 14-28, 10-127, at 1 (filed Jul. 15, 2014) (“AOL Comments”).

ground its rules on a solid legal foundation.³ There is a binary choice, however, between the version of Internet openness proposed by broadband Internet access providers on the one hand, and the vast majority of the more than three million comments received from the rest of the Internet ecosystem on the other.

Terminating access networks⁴ propose a weak-tea of open Internet protections that would permit paid prioritization, sponsored data arrangements, demands for payment to deliver requested traffic over uncongested routes, and other so-called “commercially reasonable” practices. Edge providers (including Netflix), transit providers, public interest advocates, and the overwhelming majority of public commenters in this proceeding adhere to a more robust conception of an open Internet: that an end user who has high-speed broadband service capable of reaching all endpoints on the Internet should be able to do so without interference from a broadband gatekeeper. When the user requests traffic from an edge provider, that traffic should reach the end user without degradation, de-prioritization, or demand for additional payment by the broadband access provider.

³ See, e.g., Comments of AT&T Services, Inc., *filed in* GN Docket Nos. 14-28, 10-127, at 2 (filed Jul. 15, 2014) (“AT&T Comments”); Comments of Mozilla, *filed in* GN Docket Nos. 14-28, 10-127, at 3 (filed Jul. 15, 2014) (“Mozilla Comments”); Comments of Cogent Comm’cns Grp., *filed in* GN Docket Nos. 14-28, 10-127, at 3 (filed Jul. 15, 2014) (“Cogent Comments”); Public Knowledge Comments at 1.

⁴ These Reply Comments use the term “terminating access network” or “terminating ISP” to mean a last-mile residential broadband Internet access provider. A terminating access network is the final destination for delivery of content to consumers. See WILLIAM B. NORTON, *THE INTERNET PEERING PLAYBOOK: CONNECTING TO THE CORE OF THE INTERNET* 137 (2014 ed.) (“Access networks (also known as ‘eyeball networks’) are Internet Service Providers that sell Internet access to end-users. Access Networks include cable companies, telephone companies and wireless Internet providers. Since Internet users primarily download content, Access Network traffic is generally in-bound (toward the end-user).”).

Open Internet rules should prevent blocking and degradation at the interconnection point with the terminating access network as well as over the last mile. Just as last-mile degradation of traffic harms consumers, so too does the Internet service provider (“ISP”) practice of demanding terminating access fees at interconnection points.

II. EFFECTIVE OPEN INTERNET RULES MUST PREVENT BLOCKING AND PAID PRIORITIZATION AT EVERY POINT OF THE TERMINATING ACCESS NETWORK

Terminating access networks are in the business of selling “*Inter-net*” access, not “*network*” access. Consumers purchase that access to receive content and services from edge providers without alteration or degradation by the terminating access network. The NPRM tentatively proposes to allow “commercially reasonable” discrimination in the delivery of Internet content over the last-mile network and to leave interconnection outside the scope of any proposed rules.⁵ This approach is unlikely to yield meaningful and enforceable open Internet protections.⁶

A. Pay-for-Priority Is Inconsistent with an Open Internet

When a consumer buys access to the Internet, she expects that the service will enable her to reach every endpoint on the Internet at advertised speeds. The Commission’s original open Internet rules enshrined this understanding in the definition of broadband Internet access service: “A mass-market retail service by wire or radio that provides the capability to transmit data to and receive data from *all or substantially all Internet endpoints*, including any capabilities that are incidental to and enable the

⁵ *Open Internet on Remand NPRM*, 29 FCC Rcd. at 5582-83 ¶¶ 59, 61.

⁶ See Comptel Comments at 6; Comments of Free Press, *filed in* GN Docket Nos. 14-28, 10-127, at 8 (filed Jul. 17, 2014) (“Free Press Comments”); Mozilla Comments at 7; Public Knowledge Comments at 3 (all expressing doubts about a “commercially reasonable” standard’s ability to protect an open Internet).

operation of the communications service”⁷ Terminating access networks market broadband Internet access service to consumers on the strength of its “reliable connection to keep you connected to everything you love.”⁸ As studies of broadband use in America consistently show, consumers use broadband Internet access services to request traffic from myriad edge providers offering streaming video, music, social networking, remote storage, video conferencing, and a host of other content and services.⁹

As the *Open Internet Order* recognized, however, “if permitted to deny access, or charge edge providers for prioritized access to end users, broadband providers may have incentives to allow congestion rather than invest in expanding network capacity.”¹⁰ In view of this incentive, terminating access networks’ intention to pursue different paid prioritization schemes undermines their professed commitment to the continued support of a robust open Internet. Further, the NPRM’s tentative proposal to allow “commercially reasonable” paid prioritization is at odds with the Commission’s findings in the 2010 *Open Internet Order*. There the Commission explained that “if edge providers need to negotiate access or prioritized access fees with broadband providers,

⁷ Preserving the Open Internet, *Report and Order*, 25 FCC Rcd. 17905, 17932 ¶ 44 (2010) (“*Open Internet Order*”), *aff’d in part, vacated and remanded in part sub nom. Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014) (emphasis added).

⁸ *U-verse High Speed Internet: Fast, Reliable, and Connected*, AT&T, available at http://www.att.com/shop/internet.html#fbid=2rm8EzSMw_D (last visited Sep. 12, 2014).

⁹ Sandvine, *Global Internet Phenomena Report: 1H 2014*, at 6 (2014), available at <https://www.sandvine.com/downloads/general/global-internet-phenomena/2014/1h-2014-global-internet-phenomena-report.pdf> (listing among the top ten peak-time sources of Internet traffic: Netflix, YouTube, iTunes, Facebook, Amazon Video, and Hulu).

¹⁰ *Open Internet Order*, 25 FCC Rcd. at 17929 ¶ 40.

the resulting transaction costs could further raise the costs of introducing new products and might chill entry and expansion.”¹¹

B. Strong Open Internet Rules Must Address Interconnection

In his statement accompanying the NPRM, Chairman Wheeler explains that “when a consumer buys a specified bandwidth, it is commercially unreasonable—and thus a violation of this proposal—to deny them the *full* connectivity and the *full* benefits that connection enables.”¹² The full benefit of broadband Internet access is the ability to receive requested edge-provider content at speeds made possible by the consumer’s particular tier of service. Most traffic that a user requests originates on other networks and reaches the user by traveling through interconnection points at the “doorstep” of the broadband provider’s network. Broadband providers market, and consumers purchase, different tiers of broadband service based on the ability to access edge-provider content at advertised speeds. A broadband provider that sells a 105 Mbps broadband connection to the consumer but provides only 1.5 Mbps of interconnection capacity to deliver requested content to its network denies the consumer the full connectivity and benefits of her broadband connection. When a terminating access network allows interconnection links to its network to consistently congest, a consumer does not get the broadband access service that she pays for, no matter how much speed she pays for on the last mile.

Moreover, if “ISPs use this poor performance to upsell users into more expensive packages,”¹³ consumers are not just denied the full benefit of their broadband packages,

¹¹ *Id.* at 17920-21 ¶ 26.

¹² *Open Internet on Remand NPRM*, 29 FCC Rcd. at 5647 (statement of Chairman Tom Wheeler) (emphasis in original).

¹³ Free Press Comments at 14.

they are actively harmed. A consumer who upgrades her broadband package, only to find a faster last-mile broadband connection does nothing to resolve congestion at the interconnection point, has paid more to get less in terms of actual versus advertised speeds.¹⁴

Interconnection points with terminating access networks fit comfortably within the scope of the Commission’s proposed rules: “our rules apply only as far as the limits of a broadband provider’s control over the transmission of data to and from its broadband customers.”¹⁵ The only way for any online service or application to reach a user is by traveling across her terminating ISP’s network. In the past, the FCC has focused only on a terminating ISP’s ability to block, slow, or degrade how content travels *over* its network to a consumer. The NPRM tentatively retains that narrow focus.¹⁶ But a terminating ISP also can block, slow, or degrade how content *enters* its network by failing to allocate sufficient capacity at the point of interconnection to its network. From a consumer’s perspective, whether degradation occurs on the last mile or at the interconnection point to the last mile is a distinction without a difference. Both impede a consumer’s access to the online content she has requested.

This point of interconnection can become the proverbial bottleneck for delivery of online content to consumers. By refusing to allocate sufficient capacity to settlement-free

¹⁴ See Applications of Comcast Corp. and Time Warner Cable Inc. for Consent to Transfer Control of Licenses and Authorizations, Petition to Deny of Netflix, Inc., MB Docket No. 14-57, at 62-63 (filed Aug. 27, 2014) (“Netflix Petition to Deny”) (observing that when bitrates on congested interconnection points with Comcast’s network reached 1.5 Mbps, customers with 105 Mbps connections fared no better than customers with 25 Mbps).

¹⁵ *Open Internet on Remand NPRM*, 29 FCC Rcd. at 5582 ¶ 58 n.129.

¹⁶ *Id.* at ¶ 59.

interconnection routes, a terminating access network can create congestion on those routes, leaving edge providers to choose between sustained congestion or the payment of a terminating access fee.

It bears repeating that Netflix does not send unsolicited traffic to a terminating access network or “cause” traffic to be delivered through a congested route. Netflix does not deliver a single bit of data except at the request of the end user who has purchased broadband access from her ISP. Broadband commenters try to turn this dynamic on its head, saying that edge providers like Netflix create congestion by choosing how to deliver traffic to their networks.¹⁷ Relying on routes that do not require the payment of a terminating access fee is not a manipulation of the routing of traffic into the terminating access network. It reflects Netflix’s decision to avoid paying access charges that are not subject to competitive pressure and “raise the costs of introducing new products.”¹⁸ Finally, Netflix offered to deliver traffic to the doorsteps of the large broadband providers making these claims, or even into their last-mile networks free of charge. Uniformly, they declined the offer until Netflix reluctantly agreed to pay a terminating access fee.¹⁹

¹⁷ See, e.g., Verizon Comments at 75 (charging that “congested Netflix traffic was caused by Netflix’s decision to route its traffic over a handful of transit providers who had not made arrangements for connections that could handle Netflix’s traffic volumes . . .”).

¹⁸ *Open Internet Order*, 25 FCC Rcd. at 17921 ¶ 26.

¹⁹ See, e.g., Sam Gustin, *Netflix Pays Verizon in Streaming Deal, Following Comcast Pact*, Time (Apr. 28, 2014), available at <http://time.com/80192/netflix-verizon-paid-peering-agreement/>.

As the Chairman has stated, “last-mile power cannot be a lever for gaining unfair advantage.”²⁰ A terminating ISP’s control over interconnection to its network is an extension of the last-mile leverage that prompted the need for open Internet protections in the first place. Netflix has experienced firsthand the exercise of that leverage. As Netflix has explained,²¹ Comcast’s refusal to add capacity at interconnection points with transit providers carrying Netflix traffic requested by Comcast’s subscribers led to Netflix’s streaming video service becoming nearly unviewable.²² That congestion dissipated within a week of Netflix agreeing to pay Comcast for direct interconnection.²³ At all times, the ability to allow or alleviate congestion at interconnection points was within Comcast’s control. The same holds true for other terminating access networks that Netflix now pays for direct interconnection.

Terminating access networks have used their control over interconnection to avoid open Internet obligations. As a condition of its merger with NBC Universal, Comcast agreed to abide by open Internet no-blocking and non-discrimination rules that applied only to its last-mile facilities.²⁴ That condition did not prevent Comcast from allowing routes into its network to congest, ultimately resulting in transit providers and edge providers agreeing to pay Comcast to deliver traffic requested by Comcast’s own

²⁰ Tom Wheeler, Chairman, Federal Communications Commission, Prepared Remarks at 1776 Headquarters, at 5 (Sep. 4, 2014), *available at* http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0904/DOC-329161A1.pdf (“Wheeler Remarks”).

²¹ Netflix Petition to Deny, at 55-60.

²² Netflix Petition to Deny, Declaration of Ken Florance, at 17 ¶ 52.

²³ *Id.* at 19 ¶ 58.

²⁴ Final Judgment, *United States v. Comcast Corp.*, No. 1:11-cv-00106, at 22-23 (Sept. 1, 2011).

subscribers.²⁵ Netflix agrees with the commenters in this proceeding who state that, “[w]ithout addressing traffic exchanges between last-mile broadband ISPs and other networks, the Commission would perpetuate a loophole that would swallow the rule.”²⁶

III. LACK OF BROADBAND COMPETITION EXACERBATES TERMINATING ACCESS MONOPOLY POWER AT INTERCONNECTION POINTS

Since its 2005 Internet Policy Statement, the Commission has made “competition among network providers” a central tenet of its open Internet policy.²⁷ Competition has been the Commission’s mantra since the first days of Chairman Wheeler’s tenure.²⁸ Broadband access service commenters argue erroneously that competition among facilities-based providers checks any ability to leverage control of bottleneck monopoly power to harm the open Internet.²⁹ With respect to true high-speed broadband, however,

²⁵ See, Letter from Adam Rothschild, VP, Network Architecture, Voxel dot Net, Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, MB Docket No. 10-56, at 1 (Jan. 11, 2011) (claiming that Comcast “deployed an ecosystem in which hosting companies such as Voxel are effectively forced to pay Comcast to serve its broadband subscribers”); Comments of Level 3 Communications, LLC, *filed in* GN Docket Nos. 14-28, 09-191, at 7-8 (Mar. 21, 2014).

²⁶ Cogent Comments at 7; *see also* Comptel Comments at 26 (“The same economic forces that threaten the openness of [a] consumer’s last-mile broadband connection are present at the point of interconnection.”).

²⁷ Appropriate Framework for Broadband Access Over Wireline Facilities, *Policy Statement*, 20 FCC Rcd. 14986, 14988 ¶ 4 (2005) (“*Internet Policy Statement*”).

²⁸ Wheeler Remarks at 6.

²⁹ *See, e.g.*, Comcast Comments at 10 (“This heightened competition undoubtedly raises the costs to a broadband provider of attempting to limit Internet openness.”); AT&T Comments at 17-18.

high switching costs and the lack of meaningful alternatives result in terminating access networks enjoying bottleneck monopoly power.³⁰

A. Lack of Competition and High Switching Costs Reinforce Broadband Providers' Terminating Access Monopoly

As the Chairman made clear in remarks on “The Facts and Future of Broadband Competition,” competition is rare in the high-speed residential broadband market. Rather, “there is an inverse relationship between competition and the kind of broadband performance that consumers are increasingly demanding.”³¹ As a result, the current broadband market at the 4-10 Mbps threshold “is what economists call a ‘duopoly,’ a marketplace that is typically characterized by less than vibrant competition.”³² At broadband speeds approaching higher thresholds necessary to support current and future use by American households, the duopoly transitions to a monopoly: “At 25 Mbps, there is simply no competitive choice for most Americans . . . three-quarters of American homes have no competitive choice for the essential infrastructure for 21st century economics and democracy.”³³

Wired high-speed broadband providers vastly overstate the level of competition to which they are subjected by including satellite, mobile, and DSL among their competitors. As Netflix has explained elsewhere, data caps and other limitations make

³⁰ See BARBARA VAN SCHEWICK, INTERNET ARCHITECTURE AND INNOVATION 256 (2010) (“A network provider may have the ability and the incentive to discriminate to exclude rival content, applications, or portals from its network, even if it faces limited competition in the market for Internet services.”).

³¹ Wheeler Remarks at 6.

³² *Id.* at 4.

³³ *Id.*

satellite and mobile broadband imperfect substitutes, at best, for wired high-speed broadband.³⁴ Similarly, “[t]raditional DSL is just not keeping up, and new DSL technologies, while helpful, are limited to short distances.”³⁵

Even when there are alternative broadband providers available to a consumer, high switching costs often place alternatives beyond the consumer’s reach. As Chairman Wheeler observed, “users cannot respond by easily switching providers”:³⁶

Counting the number of choices the consumer has on the day before the Internet service is installed does not measure their competitive alternatives the day after. Once consumers choose a broadband provider, they face high switching costs that include early-termination fees, and equipment rental fees. And, if those disincentives to competition weren’t enough, the media is full of stories of consumers’ struggles to get ISPs to allow them to drop service.³⁷

Based on the results from the Commission’s 2010 *Broadband Decisions* survey, less than 12 percent of respondents switched ISPs in the prior year excluding those who changed ISPs because they moved.³⁸ Switching costs factored heavily in the D.C. Circuit’s agreement with the Commission that wired broadband providers act as “terminating monopolists” or “gatekeepers” with respect to edge providers:

[I]f end users could immediately respond to any given broadband provider’s attempt to impose restrictions on edge providers by switching broadband providers, this gatekeeper power might well disappear. . . . For example, a broadband provider like Comcast would be unable to threaten

³⁴ Netflix Petition to Deny at 12.

³⁵ Wheeler Remarks at 4-5.

³⁶ *Id.* at 4.

³⁷ *Id.*

³⁸ Federal Communications Commission, *Broadband Decisions: What Drives Consumers to Switch—Or Stick with—Their Broadband Internet Provider*, at 5-6 (Dec. 2010), available at https://apps.fcc.gov/edocs_public/attachmatch/DOC-303264A1.pdf.

Netflix that it would slow Netflix traffic if all Comcast subscribers would then immediately switch to a competing broadband provider. But we see no basis for questioning the Commission’s conclusion that end users are unlikely to react in this fashion.³⁹

Given the lack of alternatives and high switching costs, competition will not constrain the exercise of bottleneck monopoly power by terminating access networks. This situation is further exacerbated by potential further consolidation within the broadband industry.

B. Competition in the Broader Transit Marketplace Does Not Affect Interconnection with Terminating Access Networks

Competition in the transit and content delivery network (“CDN”) markets does not discipline anticompetitive interconnection practices of large terminating ISPs. First, those ISPs’ terminating access charges for direct interconnection do not include transit or storage services. Nor is direct interconnection a substitute for the transit or storage services that online content providers must pay for or internalize to deliver traffic to a terminating access network. The termination fees that large ISPs charge to allow traffic onto their networks are *in addition* to the costs of these other services. Second, large terminating access networks can leverage their monopoly power over interconnection points to their networks to extract access fees from transit providers, CDNs, and edge providers.⁴⁰ Not only does this fail to discipline access fees set by terminating access networks themselves, it enables them to effectively set a price floor in the otherwise

³⁹ *Verizon v. FCC*, 740 F.3d 623, 646 (D.C. Cir. 2014) (internal citations omitted). The Commission declined to extend the *Open Internet* rules to dial-up Internet access “because telephone service has historically provided the easy ability to switch among competing dial-up Internet access services.” *Open Internet Order*, 25 FCC Rcd. at 17935 ¶ 51.

⁴⁰ See Comptel Comments at 28 (explaining that “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”).

competitive markets for transit and CDN services.⁴¹ These access charges will be passed on to transit and CDN customers in excess of what they already pay for transit and storage, effectively raising the overall rates for these services.

Terminating access networks' users are "single-homed," meaning that edge providers can reach consumers only through interconnection points with the terminating access network. As a consequence, terminating access networks are immune from competitive pressures faced by backbone providers and other networks whose customers may be reached through routes that they do not control.⁴² This is the core distinction between terminating access networks and other networks exchanging traffic on the Internet. Transit providers and CDNs cannot deliver traffic directly to the end user. They can deliver traffic to the terminating access network's doorstep but cannot prevent the terminating access network from blocking the doorway or charging for admission.

This distinction between terminating access and other traffic exchanges is not unique to Internet traffic. In the public switch telephone network ("PSTN") context, the Commission has recognized that terminating access is not subject to the same competitive pressure as transit and calibrates regulation accordingly. The *Intercarrier Compensation Order* applied bill-and-keep methodology, which requires carriers to cover their own

⁴¹ For example, due to competition and technological innovation, the transit market has been marked by precipitous price declines over the last decade. *See Internet Transit Prices—Historical and Projected: Abstract*, DrPeering International, available at <http://drpeering.net/white-papers/Internet-Transit-Pricing-Historical-And-Projected.php> (last visited Sep. 13, 2014).

⁴² Applications filed by Global Crossing Ltd. and Level 3 Commc'ns, Inc. for Consent to Transfer Control, *Memorandum Opinion and Order and Declaratory Ruling*, 26 FCC Rcd. 14056, 14068 ¶ 27 (2011) (finding the transit market competitive where "86% to 88% of Level 3 and GCL transit or direct Internet access (DIA) customers are 'multi-homed' with providers other than Level 3 and GCL").

costs for delivering traffic to a mutually agreed interconnection point, largely to address distortions and arbitrage in a market “which may not be subject to competitive discipline.”⁴³ The bill-and-keep methodology expressly applies to end-office switching—*i.e.*, the exchange of traffic at the interconnection point with the terminating access network—because that “is where the most acute intercarrier compensation problems, such as arbitrage, currently arise.”⁴⁴

By contrast, the Commission did not apply bill-and-keep to transit or tandem switching where the terminating carrier did not own the tandem switch.⁴⁵ Unlike end-office interconnection, which is under the control of the terminating carrier, tandem-switched transport includes “circuits used in common by multiple interexchange carriers or other persons from the tandem to the end office.”⁴⁶ Where the terminating carrier does not control the tandem switch, concerns about leveraging the terminating access monopoly to extract unrestrained access fees are less acute. Similarly, the *Inter-carrier Compensation Order* declined to apply bill-and-keep to the broader transit market where carriers, who are not directly interconnected, exchange “non-access traffic” by routing through third parties.⁴⁷ The PSTN distinction between terminating access traffic and

⁴³ Developing an Unified Intercarrier Compensation Regime, *Report and Order and Further Notice of Proposed Rulemaking*, 26 FCC Rcd. 17663, 17906, 17911 ¶¶ 742, 752 (2011) (“*Inter-carrier Compensation Order*”).

⁴⁴ *Id.* at 17933 ¶ 800; *see also* 47 C.F.R. § 69.2(pp) (defining “end office” as “the telephone company office from which the end user receives exchange service”).

⁴⁵ *See Inter-carrier Compensation Order*, 26 FCC Rcd. at 17943 ¶ 819 (declining to address transport charges “where the terminating carrier does not own the tandem”).

⁴⁶ 47 C.F.R. § 69.2(ss)(2).

⁴⁷ *Inter-carrier Compensation Order*, 26 FCC Rcd. at 18114 ¶ 1311.

traffic exchanges that are subject to competitive pressure is straightforward and applicable to the exchange of Internet traffic.

IV. TERMINATING ACCESS FEES ARE INCONSISTENT WITH OPEN INTERNET PRINCIPLES

A. Terminating Access Fees Are No Different from Blocking or Degradation Over the Last Mile

Transit providers and CDNs provide distinct, valuable services to edge providers such as delivering traffic to all points on the Internet or storing content closer to the requesting end user to ensure reliable delivery of content and services. By contrast, paid interconnection with a terminating access network does not entitle edge providers to either of these services. Rather, the terminating access network charges online content providers for its agreement to accept the delivery of data that its own customers have requested.

Settlement-free interconnection has long been the default arrangement for interconnection between the networks that make up the Internet.⁴⁸ Increasingly, however, large terminating access networks demand fees to terminate traffic delivered to their doorsteps. They coerce transit providers, CDNs, and edge providers to pay these fees by refusing to add capacity to routes into their networks. Those routes congest, severely degrading the performance of congestion-sensitive traffic like streaming video.

Requiring edge providers to pay terminating access fees to avoid congestion poses the same threat as requiring an edge provider to pay for priority or to prevent blocking on the last mile. Broadband providers have the same incentive to impose terminating access

⁴⁸ Cogent Comments at 6.

fees as they have to charge for prioritized delivery of traffic over the last mile.⁴⁹

Likewise, terminating access fees pose the same serious harms to innovation on the open

Internet as pay-to-play over the last mile:

Broadband providers would be expected to set inefficiently high fees to edge providers because they receive the benefits of those fees but are unlikely to fully account for the detrimental impact on edge providers' ability and incentive to innovate and invest, including the possibility that some edge providers might exit or decline to enter the market. The unaccounted-for harms to innovation are . . . likely to be particularly large because of the rapid pace of Internet innovation, and wide-ranging because of the role of the Internet as a general purpose technology.⁵⁰

Finally, just as pay-to-play arrangements over the last mile create an incentive for broadband providers to forgo network improvements and investments over the last mile, terminating access fees create an incentive for terminating access networks to forgo investments in additional capacity at settlement-free interconnection points with their networks. When these interconnection points become congested, it effectively degrades or even blocks traffic depending on the level of congestion. Edge providers have no choice but to buy their way out of congestion. This gives terminating access networks every incentive to allow settlement-free routes to congest to extract fees from edge providers. The Commission should seriously consider whether rules can protect an open Internet if they fail to account for a market structure that encourages terminating access networks to refuse to augment settlement-free interconnection capacity so they can demand unrestrained payments to augment paid interconnection capacity.

⁴⁹ *Open Internet Order*, 25 FCC Rcd. at 17919 ¶ 24 (“[B]roadband providers may have incentives to increase revenues by charging edge providers, who already pay for their own connections to the Internet, for access or prioritized access to end users.”).

⁵⁰ *Id.* at 17919-20 ¶ 25.

B. The Costs of Interconnection Do Not Justify Terminating Access Fees

Edge providers pay for their own connections to the Internet. They also internalize transit and storage costs or pay transit providers and CDNs to deliver traffic to the doorstep of terminating access networks. Either way, content providers pay their own freight. It is false for certain broadband providers to claim that “[e]dge providers have never fully covered their share of network costs.”⁵¹

There are two types of marginal costs incurred by the delivery of additional traffic over last-mile networks: (1) the cost of providing additional capacity at interconnection points; and (2) the cost of delivering traffic from the interconnection points over the last mile. Neither justifies terminating access fees.⁵²

The cost of augmenting capacity at interconnection points is nominal.⁵³ In many cases, adding or allocating capacity simply requires connecting two routers within feet of each other. Even if a new port is required, the cost is less than \$10,000 and is amortized over three to five years.⁵⁴ Even broadband providers concede that “the bandwidth capacity required for the edge provider’s initial connection to a network . . . forms a very

⁵¹ Comments of CenturyLink, *filed in* GN Docket Nos. 14-28, 10-127, at 16 (filed Jul. 17, 2014) (“CenturyLink Comments”); *see also* Verizon Comments at 74 (arguing that Netflix seeks regulations in which “their transit carriers are entitled to free interconnection with an ISPs’ networks regardless of the costs they impose”).

⁵² In Netflix’s experience, smaller ISPs and ISPs in competitive markets do not charge interconnection tolls. Globally, Netflix delivers its traffic without payment to 99 percent of terminating access networks.

⁵³ Comments of Level 3 Communications, LLC, *filed in* GN Docket No. 14-28 at 12 (Jul. 15, 2014) (“Level 3 Comments”).

⁵⁴ Netflix Petition to Deny at 65; Cogent Comments at 16.

small part of the overall cost structure of operating a bandwidth network.”⁵⁵ When transit providers have offered to pay to add capacity to settlement-free interconnection points with large terminating access networks, those networks have refused.⁵⁶ Instead, they allow ports to congest or charge terminating access fees well beyond the cost of adding capacity to congested interconnection points.⁵⁷

The other marginal cost of delivering requested traffic is the marginal cost of transporting data over the last mile to the requesting end user. If there is sufficient capacity over the last mile to satisfy the network speeds that have been advertised to the consumer, then the delivery of Netflix traffic does not impose unrecovered costs on the broadband ISP. If there is not additional capacity, consumers who have purchased high-speed broadband connections are not consistently getting what has been advertised to them. In any event, broadband ISPs have insisted that they have more than sufficient last-mile capacity to accommodate the video traffic requested by their customers.⁵⁸ This

⁵⁵ CenturyLink Comments at 16.

⁵⁶ See Press Release, Cogent, Cogent Offers to Pay Capital Costs Incurred by Major Telephone and Cable Companies Necessary to Ensure Adequate Capacity (Mar. 21, 2014), <http://www.cogentco.com/en/news/press-releases/631-cogent-offers-to-pay-capital-costs-incurred-by-major-telephone-and-cable-companies-necessary-to-ensure-adequate-capacity>.

⁵⁷ See Level 3 Comments at 12 (“The costs of physical interconnection facilities do not come near to accounting for the amount of tolls sought by the large mass-market retail ISPs.”).

⁵⁸ See Mark Taylor, *Verizon’s Accidental Mea Culpa*, Level 3 Communications Blog (Jul. 17, 2014), available at <http://blog.level3.com/global-connectivity/verizons-accidental-mea-culpa/>; Don Reisinger, *Time Warner Cable, Netflix at Odds Over ‘Super HD,’ 3D*, CNet (Jan. 17, 2013), available at <http://www.cnet.com/news/time-warner-cable-netflix-at-odds-over-super-hd-3d/> (Time Warner Cable claims that its “network is more than capable of delivering this content to Netflix subscribers today”).

makes clear that any persistent constraints on the delivery of traffic are a function of congestion at the point of interconnection to their network.

In sum, charging edge providers for last-mile delivery undermines basic Net Neutrality principles. The 2010 *Open Internet* rules prohibited charges for access or priority over the last mile because of the harm they would inflict on investment and innovation on the Internet.⁵⁹ Levying those same charges at the interconnection point has the same negative impact.

C. Traffic Ratios Do Not Justify Terminating Access Fees

Ratio-based justifications for terminating access fees—premised on the notion that traffic between a terminating access network and a CDN, transit provider, or edge-provider should be roughly in balance—make no sense because traffic exchange with terminating access networks will almost always be out of ratio, and in any event, ratios no longer accurately reflect the mutual value of networks exchanging traffic.

First, a terminating access network’s customers request far more traffic than they send.⁶⁰ The very architecture of last-mile networks and the broadband packages sold to consumers guarantees this asymmetry. The majority of broadband access providers do not even sell symmetrical connections to consumers. For example, Comcast sells high-speed broadband offerings in downstream-to-upstream ratios around 5:1:

⁵⁹ In explaining the nondiscrimination rule, the Commission noted that “[s]ince the beginning of the Internet, Internet access providers have typically not charged particular content or application providers fees to reach the providers’ retail service end users or struck pay-for priority deals [T]his departure from longstanding norms could cause great harm to innovation and investment in and on the Internet.” *Open Internet Order*, 25 FCC Rcd. at 17947 ¶ 76.

⁶⁰ See Free Press Comments at 146 (“Termination of traffic onto a last-mile network will never be even close to in ratio, since use of the Internet is asymmetric.”).

Economy Plus:	3.0 Mbps/768 Kbps
Performance Starter:	6 Mbps/1 Mbps
Performance:	25 Mbps/5 Mbps
Blast:	105 Mbps/10 Mbps
Extreme 150:	150 Mbps/20 Mbps ⁶¹

The Commission's own model for American households' typical broadband use also reflects this imbalance. Its "high use household" bandwidth scenario shows a household receiving 10 Mbps downstream for every 2.9 Mbps it sends upstream.⁶² Household use of broadband will go even further out of balance as edge providers continue to invest and innovate in high-quality content, like 4K video.

Second, ratios are applied arbitrarily and enforced inconsistently. When an ISP's subscriber uploads to a cloud-based backup service, neither the backup service nor the subscriber gets refunded even though their data flow is greater upstream than down.

Ratio-based charges no longer make economic sense since traffic ratios do not accurately reflect the value that networks derive from the exchange of traffic. For example, an online video distributor ("OVD") could keep its traffic in ratio by requesting that a subscriber send a bit upstream for every bit sent downstream. Technically, this would bring traffic ratios into balance, but neither the OVD nor the broadband provider would derive more value from it. To the contrary, it would be an extremely inefficient use of the network.

⁶¹ Letter from Lynn R. Charytan, Senior Vice President, Regulatory Affairs, Senior Deputy General Counsel, Comcast Corp., to Marlene H. Dortch, Secretary, Federal Communications Commission, MB Docket No. 10-56, Ex. A at 3 (July 25, 2014), available at <http://apps.fcc.gov/ecfs/document/view?id=7521736056>.

⁶² Inquiry Concerning the Deployment of Advanced Telecommunications Capacity to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, GN Docket No. 14-126, *Tenth Broadband Progress Notice of Inquiry*, at 7-8 ¶ 12, Table 2 (rel. Aug. 5, 2014).

More to the point, greater demand for data downstream is a boon to, not a burden on, broadband provider revenues.⁶³ Demand for data-rich media services such as streaming video drives more consumers to purchase broadband access products. This has created more broadband customers and higher revenues for ISPs. Indeed, the lopsided ratio indicates the growing value that consumers derive from their Internet connections and substantial revenues that ISPs can generate from selling those connections, particularly as the cost of delivering data continues to decrease.⁶⁴

Households increasingly demand high-quality, high-bandwidth content as they purchase Ultra HD Smart TVs and other Internet-enabled devices. This is good for innovation and investment on the Internet. But it will keep traffic traveling over interconnection points with terminating access networks out of balance. If keeping traffic in an arbitrarily set and outdated ratio is a precondition for settlement-free peering, all edge providers will eventually pay terminating access fees.

D. Open Internet Rules Should Prevent Terminating Access Fees

Terminating access networks can and do charge access fees that harm consumers, edge providers, and the entire Internet ecosystem. To protect an open Internet, the

⁶³ For example, Bernstein Research analyst Craig Moffett estimates that two largest cable companies are posting “almost comically profitable” 97 percent margins for their Internet services. Dave Talbot, *When Will the Rest of Us Get Google Fiber?*, MIT Technology Review (Feb. 4, 2013), <http://www.technologyreview.com/news/510176/when-will-the-rest-of-us-get-google-fiber/>.

⁶⁴ For example, a study conducted in Canada in 2011 ranked the incremental cost of delivering data from the edge of the access provider’s network to the consumer for “average heavy users,” those using between 60 and 250 GB per month, at about a penny to 1.4 cents Canadian per gigabyte. See, Lemay-Yates Associates, Inc., *The Cost of Incremental Internet Transit Bandwidth in the Local Access Cloud*, at 3 (prepared for Netflix, Inc.) (Mar. 28, 2011), available at http://www.lya.com/en/spotlight/form2_accesscloud.php (registration required).

Commission needs to explore alternatives to keep a terminating access network's monopoly power in check. The bill-and-keep approach the Commission adopted in its *Intercarrier Compensation Order* provides one approach.⁶⁵ There, the Commission noted that bill-and-keep "imposes fewer regulatory burdens and reduces arbitrage and competitive distortions inherent in the current system, eliminating carriers' ability to shift network costs to competitors and their customers."⁶⁶ The Commission cited as precedent for bill-and-keep arrangements "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."⁶⁷ Thus, bill-and-keep would not be a departure from accepted practices for the exchange of IP traffic. It would be a return to them. Whether through bill-and-keep or another mechanism, open Internet rules should prevent terminating access networks from extracting terminating access fees unrelated to costs and unchecked by competitive forces.⁶⁸

V. THE FCC SHOULD USE ALL TOOLS AT ITS DISPOSAL TO ACHIEVE STRONG NETWORK NEUTRALITY

The Commission possesses a multitude of non-mutually exclusive alternatives to protect an open Internet, including enforceable industry standards, self-regulatory codes of conduct, and statutory tools. That said, some of these options would be insufficient by

⁶⁵ *Intercarrier Compensation Order*, 26 FCC Rcd. at 17906, 17911 ¶¶ 742, 752.

⁶⁶ *Id.* at 17904 ¶ 738.

⁶⁷ *Id.* at 17904 ¶ 737.

⁶⁸ Netflix also encourages the Commission to explore Cogent's proposal to establish sustained congestion as a commercially unreasonable practice, Cogent Comments at 20, or more direct requirements to maintain sufficient capacity at interconnection points so consumers can use their broadband service as advertised.

themselves to achieve the strong protections required to promote innovation and competition online. For that reason, Netflix does not suggest at this point that the FCC rule out any combination of these options.

The D.C. Circuit's *Verizon v. FCC* decision showed the limits of the Commission's authority to protect an open Internet solely under Section 706. Although Section 706 grants the Commission authority to address transparency, it is likely insufficient on its own to address all forms of discrimination that can jeopardize an open Internet.⁶⁹ Conversely, Title II provides the Commission with a more solid legal foundation for rules to prevent unreasonable discrimination and access charges. The D.C. Circuit pointed to the Commission's failure to reclassify broadband Internet access as a telecommunications service under Title II as the chief impediment to a solid jurisdictional basis for meaningful open Internet rules.⁷⁰

A. The Commission Faces No Impediment to Reclassification

As Netflix pointed out in its initial comments, opposition to Title II is largely political, not legal.⁷¹ The Commission faces no higher burden today to reclassify broadband as a telecommunications service than it did in 2002, when it classified cable

⁶⁹ See Comments of Netflix, Inc., filed in GN Docket Nos. 14-28, 10-127, at 20-22 (filed Jul. 15, 2014) ("Netflix Comments").

⁷⁰ See *Verizon*, 740 F.3d at 649-50 (noting that section 706 was insufficient authority for an anti-discrimination rule because the FCC had not classified broadband as a Title II service).

⁷¹ Netflix Comments at 21.

broadband as an information service.⁷² There are plenty of good policy and factual reasons for taking a different view today.

Because the Commission has always said that broadband Internet access included a “telecommunications component,”⁷³ reclassification requires only that the Commission now find that that telecommunications component is no longer inextricably intertwined with an information service for pure policy reasons.⁷⁴ In doing so, the Commission is not bound by its past precedent.⁷⁵ So long as the Commission acknowledges its change of policy and provides an adequate justification for it,⁷⁶ reclassification is unlikely to be overturned on appeal. A sufficient policy justification is easy to find, given the

⁷² *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009); *see also Chevron v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, at 863-64 (1984) (“An initial agency interpretation is not instantly carved in stone. On the contrary, the agency . . . must consider varying interpretations and the wisdom of its policy on a continuing basis.”).

⁷³ *See Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, Internet Over Cable Declaratory Ruling*, 17 FCC Rcd. 4798, 4823-24 ¶¶ 39, 58 (2002) (“*Cable Modem Order*”).

⁷⁴ *See FCC v. Fox*, 556 U.S. at 515 (“[It] suffices that the new policy is permissible under the statute [and] that there are good reasons for it”); *Qwest Corp. v. F.C.C.*, 689 F.3d 1214, 1224 (10th Cir. 2012) (“Generally, when a decision by the Commission represents a change in policy, our review is no more searching; in other words, no heightened level of scrutiny attends a policy change.”).

⁷⁵ *See Nat’l Cable & Telecomm. Ass’n v. Brand X Internet Servs.*, 545 U.S. 967, 976 (2005) (holding the Commission’s interpretation of the “ambiguous” statute was “a reasonable policy choice”). *But see* AT&T Comments at 42-43 (citing past Commission precedent and asserting that the Commission is “compelled” to retain its “mutual exclusivity” conclusion).

⁷⁶ *See Qwest*, 689 F.3d at 1231 (upholding the Commission’s changed policy because the Commission “was conscious of the change it was making, believed it to be better, explained why it was necessary, and offered a sound basis for repudiating its prior decisions”).

Commission's inability to adopt open Internet rules using its non-Title II authority, which the *2002 Cable Modem Order* expressly assumed it could do.⁷⁷

In addition, the Commission may revisit its factual findings that broadband access providers are “offering” information services, not telecommunications capacity. In *Brand X*, the Supreme Court “conclu[ded] that the Communications Act is ambiguous about whether cable companies ‘offer’ telecommunications with cable modem service,”⁷⁸ and the Commission is thus free to take a fresh look at how broadband access is being offered to the public today.⁷⁹

There is ample evidence that consumers do not view broadband access as an information service. Consumers today purchase broadband access to send and receive information of their own choosing to and from destinations of their own choosing.⁸⁰ Consumers do not expect or want their ISPs to change that information in either form or substance.

⁷⁷ *Cable Modem Order*, 17 FCC Rcd. at 4839 ¶ 71.

⁷⁸ *Brand X*, 545 U.S. at 970. The Court explicitly stated that the “regulatory history in at least two respects confirms that the term ‘telecommunications service’ is ambiguous.” *Id.* at 993; see also Austin Schlick, *A Third-Way Legal Framework for Addressing the Comcast Dilemma*, Federal Communications Commission, at 6 (May 6, 2010), available at https://apps.fcc.gov/edocs_public/attachmatch/DOC-297945A1.pdf (“*Third Way Legal Framework*”) (noting that *Brand X* “unequivocally reaffirms the principle that courts must defer to the implementing agency’s reasonable interpretation of an ambiguous statute”).

⁷⁹ The Commission and the courts have recognized their responsibility to review and update regulations in light of changing facts and circumstances. See *Nat’l Ass’n of Regulatory Util. Comm’rs v. FCC*, 525 F.2d 630, 644 (D.C. Cir. 1976) (directing the Commission to update its regulations if “practice and experience show” that doing so is required).

⁸⁰ 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”).

B. The Commission Can Ban Pay-For-Priority and Blocking of Edge Providers Using Its Title II Authority

The Commission has authority under Title II alone or in conjunction with Section 706 to prohibit blocking or pay-for-priority arrangements.⁸¹ That authority is not limited either by the Commission’s past Plain Old Telephone System (“POTS”) precedent, which has permitted telecom providers to offer different services to different people at different rates,⁸² or by any limitation on the Commission’s authority to require telecommunications providers to offer services to the public free of charge.⁸³

Before a telecom provider can discriminate in how it provides its services, the Commission must find that the action does not violate the obligations of a common carrier

⁸¹ See, e.g., *Verizon*, 740 F.3d 623, 649-50 (holding that the *Open Internet Order*’s nondiscrimination rule amounted to Title II common carrier regulation); *Brand X*, 545 U.S. at 1003 (Breyer, J., concurring) (concluding that the Commission’s decision to exempt cable broadband providers from Title II regulation was “perhaps just barely” within the scope of the agency’s “statutorily delegated authority”); *id.* at 1005 (Scalia, J., dissenting) (arguing that Commission’s decision “exceeded the authority given it by Congress”).

⁸² See, e.g., Verizon Comments at 16 (arguing that “Title II expressly recognizes that reasonable discrimination is lawful and has long permitted many of the practices that Title II proponents criticize”); Comcast Comments at 51 (“Longstanding Commission precedent applying the relevant standards makes clear that differential treatment of customers, far from being presumptively (much less categorically) off limits, is quite often found reasonable, and thus permissible. For example, the Commission has long held that rate differentials based on cost considerations are reasonable.”) (citing Ameritech Operating Cos. Revisions to Tariff FCC No. 2, *Order*, 10 FCC Rcd. 1960 (CCB 1994); ACC Long Distance Corp. v. Yankee Microwave, Inc., *Memorandum Opinion and Order*, 8 FCC Rcd. 85, 88-89 ¶ 15 (CCB 1993)); ACA Comments at 43 n.111 (citing POTS precedent).

⁸³ See, e.g., Verizon Comments at 64 n. 177 (“Any effort by the Commission to set a price of zero for edge provider transmissions would only exacerbate the Takings problems associated with compelled common carrier status . . . and pose other questions about the Commission’s power to set just and reasonable rates under Title II.”); Comcast Comments at 34, 38 n. 113 (discussing proposals to require ISPs to provide traffic-exchange services “for free” and urging the Commission to reject those proposals based on a “long line of Commission precedent”).

under Sections 201 and 202 of the Communications Act.⁸⁴ Unlike in the case of POTS networks, the Commission here would need to evaluate the common carrier obligations of broadband providers in light of Section 706’s direction to the Commission to use all “regulating methods” at its disposal to protect the virtuous circle of innovation.⁸⁵ Guided by this instruction, the Commission would be well within its authority to ban pay-to-play arrangements or requirements over the last-mile or at interconnection points.

C. Title II with Forbearance Is a Light-Touch Approach to Restoring Consumer Protections

Title II is a light-touch approach to restoring consumer protections that may be implemented without rate of return requirements, detailed Automated Reporting Management Information System (“ARMIS”) reporting rules, or other such hallmarks of utility-style regulation. The Commission has never proposed such requirements as part of its open Internet proceedings. The Commission’s authority to forbear from obligations that impose more costs than benefits is straightforward.

As the Commission’s former General Counsel explained in the *Third Way* proposal, the Commission has significant leeway to forbear, in full or in part, from

⁸⁴ 47 U.S.C. § 208(a), (b)(1) (“[I]t shall be the duty of the Commission to investigate the matters complained of in such manner and by such means as it shall deem proper;” “the Commission shall . . . issue an order concluding such investigation.”); *see also* Access Charge Reform Price Cap Performance Review for Local Exch. Carriers Interexchange Carrier Purchases of Switched Access Servs. Offered by Competitive Local Exch. Carriers Petition of U S W. Commc’ns, Inc. for Forbearance from Regulation As A Dominant Carrier in the Phoenix, Arizona, MSA, *Fifth Report and Order and Further Notice of Proposed Rulemaking*, 14 FCC Rcd. 14221, 14241-42, 14292 ¶¶ 41, 131 (1999) (explaining complaints regarding claimed violations of Section 201 “are best addressed in the context of a complaint filed under Section 208” and are “not subject to dismissal merely because a given rate is at or above average variable cost” and rejecting arguments that failed to “explain why or how streamlined introduction of new services would in any way affect the Commission’s ability to enforce section 202 of the Act, which prohibits unreasonable discrimination”).

⁸⁵ 47 U.S.C. § 1302(a).

virtually any provision in Title II that is not necessary to adopt open Internet protections.⁸⁶ Specifically, the Telecommunications Act of 1996 placed on the Commission an affirmative duty to forbear from any regulations that it finds unnecessary to ensure that broadband providers are not acting in an “unjustly or unreasonably discriminatorily manner” and are not necessary for the protection of consumers.⁸⁷ Here, the obligations on terminating access networks would be modest and straightforward: adhere to the no-blocking and non-discrimination rules promulgated in the Commission’s *Open Internet Order*⁸⁸ and provide sufficient interconnection capacity on settlement-free terms so consumers can use their broadband Internet access service for the purposes for which they bought it. Nothing more is required.

VI. CONCLUSION

The overwhelming and unprecedented public participation in this proceeding shows how vital Americans consider a free and open Internet to be. The Commission should promulgate rules that ensure the continued vitality of an open Internet. To do so, Netflix urges the Commission to:

⁸⁶ *Third-Way Legal Framework*, at 4.

⁸⁷ 47 U.S.C. § 160(a)(1), (2) (directing that “the Commission *shall* forbear from applying any regulation or any provision of this chapter” if the Commission determines that “(1) enforcement of such regulation or provision is not necessary to ensure that the charges, practices, classifications, or regulations by, for, or in connection with that telecommunications carrier or telecommunications service are just and reasonable and are not unjustly or unreasonably discriminatory; (2) enforcement of such regulation or provision is not necessary for the protection of consumers; and (3) forbearance from applying such provision or regulation is consistent with the public interest”).

⁸⁸ Netflix agrees with many commenters in this proceeding that the time has come to apply the no-blocking and non-discrimination rules with equal force to both wired and wireless broadband providers. *See, e.g.*, Comments of Microsoft Corp., *filed in* GN Docket No. 14-28, at 19 (filed Jul. 18, 2014); Comments of the Internet Association, *filed in* GN Docket No. 14-28, at 20-22 (filed Jul. 14, 2014).

