

**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
)	

COMMENTS OF VONAGE HOLDINGS CORP.

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SUMMARY

The Commission has historically recognized that, for consumers to benefit from competition and innovation in edge services, providers must have confidence that end users will be able to obtain services over networks owned by operators who will not impede delivery of such services. The dynamic innovation economy that characterizes today's Internet was built on this policy.

The Commission inadvertently undermined this policy by abandoning the Title II legal and regulatory framework underlying it. A series of court decisions narrowly construing the Commission's ancillary authority has diluted this attempt to preserve its long-standing pro-competition policy outside of Title II. While the Commission still has broad authority under Section 706 to achieve its policy objectives in part, the best course of action now is to restore the policy to its full vigor under Title II.

The potential harms to Internet openness are well-known. Developments in edge innovation have enormous potential to stimulate further broadband investment. But restrictions on edge providers' ability to reach customers threaten the low barriers to entry and low-cost distribution of ideas and products that have traditionally characterized the Internet economy. To fully protect against those harms, the Commission must re-adopt the Open Internet anti-discrimination and no-blocking rules. As it did in 2010, it should establish that paid prioritization is unlikely to be consistent with the anti-discrimination rule. And the Commission should enhance its transparency rule to require broadband providers to give their customers and edge providers the detailed network information they need to receive and deliver services carried over broadband ISPs' networks. Further, it should apply all of its Open Internet rules to both wired and wireless

broadband. To fully accomplish these goals, the Commission must invoke its Title II authority.

Network operators suggest that Open Internet rules will harm the economy and retard investment in broadband networks. The D.C. Circuit, however, accepted the Commission's finding that edge innovation and investment drives a virtuous circle of investment in the internet economy, resulting in higher demand for high speed bandwidth, which in turn stimulates more innovation in edge services to take advantage of such bandwidth. And, in reality, the adoption of the *Open Internet Order* was followed by significant innovation and investment in edge services and broadband investment continued unabated.

Using Title II is warranted for many reasons. The level of competition anticipated in the *Cable Modem Declaratory Ruling* and other broadband classification orders has never materialized. High concentration in broadband markets, both wired and wireless, is only increasing. Broadband end users, regardless of the technology platform, use their connectivity for VoIP, streaming video, social media and other applications delivered by third party edge providers. From the perspective of the end user, it has become difficult to say that the Internet connectivity is bundled with other services the ISP provides, as the broadband classification orders assumed — service consumers want and use is pure connectivity.

The Commission has ample authority to reclassify broadband connectivity as a separate offer of telecommunications service apart from the information service offered by ISPs. Together with the reclassification of the transmission component of broadband Internet, the Commission should forbear from all of Title II except for those provisions

essential to the preservation of an Open Internet — Sections 201, 202 and 208. And even with respect to those few provisions, the Commission should be clear that their application is limited to the enforcement of the Open Internet rules and keeping the status quo with respect to the regulatory regime applicable to broadband Internet access services prior to the decision in *Verizon*.

Vonage understands there may be reluctance to adopt an Open Internet regime predicated on Title II. If the Commission does not use the Title II approach, it should strengthen the proposed rules under section 706. First, a no-blocking rule under section 706 should evaluate the baseline of regular service under a reasonable person standard. The Commission should also adopt section 706 unfair competition rules, blocking broadband ISPs from entering priority arrangements with affiliates and second prohibiting discrimination that benefits a service offered by the ISP directly or one of its affiliates such as an affiliate providing voice service or video services. These rules would not impose a *per se* requirement to offer service to edge providers indiscriminately and would leave room for individual bargaining but still would prohibit practices that have the effect of restraining competition.

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Vonage Holdings Corp. (“Vonage”) respectfully submits these Comments in response to the Federal Communications Commission’s Notice of Proposed Rulemaking¹ regarding the remand of its *Open Internet Order*² by the United States Court of Appeals for the D.C. Circuit and its Public Notice seeking comment regarding “the best legal framework for protecting and promoting the open Internet.”³

I. Introduction

The Commission historically has protected the public interest in competitive markets by restraining the potential discriminatory practices of communications network operators against providers of application layer services.⁴ It has recognized that, for consumers to benefit from competition and innovation to develop in edge services, providers must have confidence that end users will be able to receive their services using transmission services from network operators who will not impede such delivery.⁵ For more than twenty-five years, the Commission applied this policy, from the *Computer Inquiry* line of decisions to the *Advanced Services Order* in 1998.⁶

¹ *In the Matter of Protecting and Promoting the Open Internet*, Notice of Proposed rulemaking, GN Docket No. 14-28 FCC 14-61 (rel. May 15, 2014) (“*NPRM*”).

² *Preserving the Open Internet, Broadband Industry Practices*, Report and Order, 25 FCC Rcd 17905 (2010) (“*Open Internet Order*”).

³ Public Notice, *Wireline Competition Bureau Seeks to Refresh the Record in the 2010 Proceeding on Title II and Other Potential Legal Frameworks for Broadband Internet Access Service*, GN Docket No. 10-127, DA 14-748, at 1 (rel. May 30, 2014).

⁴ See Ex Parte Letter from Tejas Narechania and Tim Wu, April 14, 2014; *Amendment of Section 64.702 of the Commission’s Rules and Regulations (Second Computer Inquiry)*, Docket No. 20828, 77 FCC 2d 384 (1980) (“*Computer II Final Decision*”).

⁵ *Id.*

⁶ See, e.g., *Computer II Final Decision; Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Memorandum Opinion and Order and Notice of Proposed Rulemaking, 13 FCC Rcd 24011, 24017 ¶ 11 (1998).

The Commission never rejected this policy. It has, however, unintentionally weakened it by abandoning the statutory framework on which the policy is predicated. In its broadband Internet classification decisions, beginning with the *Cable Modem Declaratory Ruling* in 2002,⁷ the Commission attempted to retain its pro-competitive edge services policy while removing the dominant communications platform, broadband Internet access, from the ambit of Title II by determining that broadband Internet transmission services did not include a telecommunications service subject to regulation under Title II of the Communications Act.⁸ In doing so, the Commission sought to subject broadband internet services to a minimal regulatory framework under Title I, believing it thereby had the power to restrain network operators from leveraging their control of last mile broadband connections into dominance over edge services.⁹ A series of court decisions narrowly construing the Commission’s ancillary authority has diluted this attempt to preserve its long-standing pro-competition policy outside of Title II.¹⁰ While the Commission has authority under Section 706 to achieve a significant part of its policy

⁷ *Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities*, 17 FCC Rcd 4798 (2002) (“*Cable Modem Declaratory Ruling*”), *aff’d*, *National Cable & Telecomms. Assoc. v. Brand X Internet Svcs.*, 545 U.S. 967 (2005) (“*Brand X*”).

⁸ *Id.*

⁹ *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities; Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services; Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services; 1998 Biennial Regulatory Review—Review of Computer III and ONA Safeguards and Requirements; Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities; Internet Over Cable Declaratory Ruling; Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities, Policy Statement*, 20 FCC Rcd 14986 (2005) (“*Internet Policy Statement*”).

objective, the best course of action now is to restore the policy to full vigor by reclassifying the transmission component of broadband internet service as a Title II service, adopting enforceable rules constraining network operators' incentives to discriminate against edge providers, and forbearing from the vast majority of Title II regulation in order to continue to promote the dynamism of the Internet economy.

As the Commission documented in the *Open Internet Order*, the potential for harms to Internet openness is concrete. To bring certainty to the broadband ecosystem and ensure that network operators cannot play favorites with edge services, the Commission must change course. And changing course is plainly warranted since the predictions and assumptions on which the Commission relied in its earlier classification decision over a decade ago have simply not been realized. It is well settled that the Commission has the power to revise its regulatory framework when its predictive judgments are incorrect.¹¹

In its broadband classification decisions, the Commission made several predictive judgments, all of which it can now conclude were incorrect.

First, consumers use the transmission capabilities of their broadband internet service to access third party content and applications on a far greater scale than the Commission predicted in the *Cable Modem Declaratory Ruling*.¹² The market positions of

¹⁰ See *Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014); *Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010).

¹¹ See *Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Phoenix, Arizona Metropolitan Statistical Area*, 25 FCC Rcd 8622, 8633 n.74 (2010) (“*Qwest Phoenix Forbearance Order*”) *aff’d*, *Qwest Corp. v. FCC*, 689 F.3d 1214 (10th Cir. 2012).

¹² *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4806 ¶ 114798.

companies like Netflix, Vonage and other edge providers attest to this fact. These companies offer edge services that often compete directly with the built-in capabilities of the broadband ISP's service (such as email or text messaging) or the primary business of the broadband ISP's affiliate, such as Netflix competing with cable television service and Vonage competing with voice service.

Second, the market for broadband is not competitive. With the growing demand for online video, the reality is that effective broadband service requires service well above the 4 Mbps threshold the Commission uses to define broadband.¹³ In practice, this kind of bandwidth cannot be delivered consistently over wireless or xDSL based services.¹⁴ AT&T's U-Verse service and other hybrid fiber/copper networks barely qualify since they rely on copper loops to reach the customer premises. In short, in most markets, consumers have a choice between broadband from the cable company and an inferior substitute. In markets where ILECs or CLECs offer fiber to the premises such as Verizon's FiOS, consumers at best face a duopoly. In non-fiber served areas such as AT&T's U-verse footprint, it more closely resembles a monopoly

Third, these factors taken together create an environment ripe for abuse by dominant network operators seeking to leverage their control of scarce last-mile network

¹³ *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act; A National Broadband Plan for Our Future*, Eighth Broadband Progress Report, 27 FCC Rcd 10342, 10360 ¶¶ 18-19 (2012) (“*Eighth Broadband Report*”).

¹⁴ DSL generally performs worse than fiber and cable modem in terms of maintaining performance during peak usage. *See 2014 Measuring Broadband America Fixed Broadband Report*, A report on Consumer Broadband Performance in the U.S., FCC's Office of Engineering and Technology and Governmental Affairs Bureau, at p. 11 (2014).

resources to discriminate against services that they view as competitive threats or simply to exact monopoly rents. In an era where consumers rely more on edge services than they did in 2002 and face less competition, the need for regulation is compelling.

Lastly, the Commission wrongly assumed that it could reclassify broadband as an information service yet have the flexibility to impose important competition protections if the need arose.¹⁵ Plainly, this prediction was rendered incorrect by the D.C. Circuit's decisions in *Verizon*¹⁶ and *Comcast*.¹⁷

Vonage recognizes that *Verizon* confirms the broad authority the Commission possesses under Section 706. That authority is sufficient to adopt certain Open Internet protections; but is not sufficient to bar unreasonable discrimination or establish a presumption that paid prioritization is unreasonable or fully ensure that broadband ISPs cannot block or degrade their end users' Internet experience. These Open Internet rules are critical to keeping the Internet free and open and promoting the virtuous circle of innovation and investment that has been the bedrock of Commission Internet policy.

Therefore, the time is right for the Commission to adopt Open Internet rules that will fully protect consumers and will survive judicial review. While the Commission retains broad authority under Section 706, its authority is incomplete and does not appear to allow adoption of the full framework the Commission crafted in 2010. The path under Section 706 is filled with pitfalls, while the path through Title II is clear.

¹⁵ *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4839-40 ¶¶ 72-73 (addressing whether and how Commission should “regulate cable modem service”). See also *Brand X*, 545 U.S. at 1013-14 (J. Scalia dissent).

¹⁶ *Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014).

¹⁷ *Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010).

II. The Need to Protect the Open Internet Has Never Been Greater

In the *Open Internet Order*, the Commission determined that preserving the Open Internet fostered edge-provider innovation, which in turn drives a “virtuous cycle” of broadband investment.¹⁸ The D.C. Circuit held that this finding was “reasonable and grounded in substantial evidence.”¹⁹ The same conditions that the Commission examined in the *Open Internet Order* apply today, but the stakes are higher.

A. Restrictions on Edge Providers’ Ability to Reach End Users Reduce Innovation

The *Open Internet Order* found that limiting “edge providers’ ability to reach end users and limiting end users’ ability to choose which edge providers to patronize, would reduce the rate of innovation at the edge and in turn, the likely rate of improvement to network infrastructure.”²⁰ The D.C. Circuit upheld this analysis and found “no basis for questioning the Commission’s determination.”²¹

As Vonage explained to the Commission in 2010, the open design of the Internet is critical for the development of new content and services at the edge. The free and open Internet platform affords innovators and content creators low barriers to entry and a low-cost opportunity to distribute ideas and products globally.²² The history of Internet-based

¹⁸ *Open Internet Order*, 25 FCC Rcd 17910-11 ¶ 14.

¹⁹ *Verizon*, 740 F.3d at 644.

²⁰ *Open Internet Order*, 25 FCC Rcd at 17910-11 ¶ 14.

²¹ *Verizon*, 740 F.3d at 645.

²² Comments of Vonage Holdings Corp., GN Docket No. 09-191 at p. 2 (filed January 14, 2010) (“Vonage 2010 Comments”).

innovation is littered with examples of disruptive innovation developed at the edge by consummate outsiders who did not own or control network resources.²³

Today the concerns are even greater, as significant developments in edge innovation have the potential to stimulate further broadband investment. For example, Facebook recently invested \$2 billion in Oculus VR, a virtual reality innovator that could unleash further innovation in incorporating virtual reality applications into online gaming and other Internet-based services.²⁴ This and similar developments will likely stimulate additional demand for more bandwidth to run bandwidth intensive virtual reality games and applications.

B. Broadband Providers Have the Incentive and Ability to Interfere With the Open Internet

In the 2010 Order, the Commission “adequately supported and explained” how, absent Open Internet rules, “broadband providers represent a threat to Internet openness.”²⁵ Those same conditions continue today. Further, there is substantial evidence from markets where no Open Internet protections exist that, left unchecked, network operators will discriminate against edge services.²⁶

²³ See Vonage 2010 Comments, at p. 2 n.6 citing, e.g., Lawrence Lessig, In Support of Network Neutrality, 3 ISJLP 185, 188 (2007) (“Indeed, if you consider some of the most important innovations in this history of the Internet—from the development of the World Wide Web by a Swiss researcher at CERN, to the first peer-to-peer instant messaging chat service, ICQ, developed by a young Israeli, to the first web based (or HTML-based) email, HoTMaiL, developed by an Indian immigrant – these are all innovations by kids or non-Americans, outsiders to the network owners.”)

²⁴ Peter Rubin, The Inside Story of Oculus Rift and How Virtual Reality Became Reality, WIRED (available at <http://www.wired.com/2014/05/oculus-rift-4/>).

²⁵ *Verizon*, 740 F.3d at 645.

²⁶ See NPRM ¶ 40 citing Letter from Barbara van Schewick to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 09-91, 14-28 at 2 (filed March 4, 2014) (docu-

First, in many cases, “broadband providers may be motivated to discriminate against and among edge providers,”²⁷ because ILECs or cable company network operators “have incentives to interfere” with third party edge services “that compete with the [broadband] providers’ revenue generating telephone and/or pay-television services.”²⁸ Vonage’s VoIP services, for instance, are a direct competitor to voice services provided by the cable and phone company affiliates of the broadband ISPs on which Vonage’s subscribers rely for their broadband service. Vonage’s customers must use that broadband service to access Vonage’s services. Indeed, Vonage has encountered an instance where its services were blocked by an ISP affiliated with a competing voice provider.²⁹ Other services such as Netflix, Amazon, and Vudu offer video services that compete directly with ILEC and cable company pay-television offerings.

Broadband providers thus possess “powerful incentives to accept fees from edge providers, either in return for excluding their competitors or for granting them prioritized access to end users.”³⁰ While the network operators claim otherwise,³¹ the Netflix/

menting abuses by European broadband network operators that were not subject to any Net Neutrality rules) (“Barbara van Schewick *Ex Parte*”).

²⁷ *Id.*

²⁸ *Open Internet Order*, 25 FCC Rcd at 17916 ¶ 22.

²⁹ *See Madison River Communications, LLC and affiliated companies*, File No. EB-05-IH-0110, Consent Decree, 20 FCC Rcd 4295 (EB 2005) (“*Madison River Consent Decree*”).

³⁰ *Verizon*, 740 F.3d at 645 citing *Open Internet Order*, 25 FCC Rcd at 17918-19 ¶¶ 23-24.

³¹ Comcast Response To Netflix’s Opposition To Time Warner Cable Transaction, Jennifer Khoury, Comcast Voices Blog (April 21, 2014) (available at <http://corporate.comcast.com/comcast-voices/comcast-response-to-netflixs-opposition-to-time-warner-cable-transaction>) (explaining that interconnection dispute with Netflix “has nothing to do with net neutrality.”).

Cogent/Comcast dispute during the winter of 2013-2014 demonstrated how a network operator has the economic incentive to degrade the broadband experience its end users paid for, so it can extract a toll from a major content provider with which it competes. While there is debate whether this dispute was about Net Neutrality, at a minimum, it demonstrates the powerful incentives network operators have to degrade their own end users' service.

As the D.C. Circuit concluded, broadband providers have the technical capability to discriminate against edge providers.³² Nor is there a dispute that they have the economic power as a “terminating monopolist or “gate keeper” to impose such restrictions.³³ Lastly, the Commission should recall previous instances where, despite the adoption of the 2005 Internet Policy Statement,³⁴ broadband providers have discriminated against edge providers.³⁵

Given the natural incentive for broadband network operators to discriminate against and among edge providers, as well as diminishing competition for adequate high speed broadband, it is critical that the Commission adopt enforceable Open Internet rules that will be both effective and survive judicial review. This justifies the use of the Title II

³² Verizon, 740 F.3d at 646.

³³ *Id.*

³⁴ *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities; Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services; Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services; 1998 Biennial Regulatory Review—Review of Computer III and ONA Safeguards and Requirements; Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities; Internet Over Cable Declaratory Ruling; Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities, Policy Statement*, 20 FCC Rcd 14986 (2005) (“*Internet Policy Statement*”).

regulatory framework to adopt stronger rules than the Commission could adopt under its Section 706 authority.

Moreover, experience and evidence from Europe validates the Commission's concerns.³⁶ In 2009, the European Union began to allow providers to block and discriminate against edge traffic. Under this environment, numerous edge providers faced discrimination from fixed and mobile network operators.³⁷ In a 2012 report, the Body of European Regulators for Electronic Communications ("BEREC") assembled evidence of numerous edge providers facing discrimination from both fixed and mobile network operators.³⁸ Some examples:

- VoIP providers faced limitations on end users ability to use VoIP on over mobile wireless;³⁹
- Text messaging applications were stymied by restrictions limiting over the top text messaging unless subscriber paid additional fees;⁴⁰
- A dominant fixed and mobile broadband provider blocked users' access to VoIP and messaging applications unless extra fees were paid.⁴¹

³⁵ *NPRM* ¶ 41; *Open Internet Order*, 25 FCC Rcd at 17925-27 ¶¶ 35-37.

³⁶ *NPRM* ¶ 40.

³⁷ See Barbara van Schewick *Ex Parte*, *supra* n. 26.

³⁸ See *id.* at Attachment 1, Body of European Regulators for Electronic Communications. A View of Traffic Management and Other Practices Resulting in Restrictions to the Open Internet in Europe. Body of European Regulators for Electronic Communications. BoR (12) 30 (May 29, 2012).

³⁹ *Id.* at p. 8; Barbara van Schewick *Ex Parte*, *supra* n. 26, Attachment 3, Voice on the Net Coalition Europe, 2012 Identification of Restrictions on Internet Access by Mobile Operators. (February 23, 2012)

⁴⁰ *Id.*

⁴¹ Toby Sterling, "Dutch Parliament Poised To Enact World's Strongest Net Neutrality Law For Mobile Service." *Huffington Post*, June 22, 2011. (available at http://www.huffingtonpost.com/2011/06/22/dutch-parliament-mobile-netneutrality_n_882309.html.)

In response, some EU Member States, in particular the Netherlands, have already adopted Net Neutrality protections.⁴² Further, the European Parliament in April proposed even stronger Open Internet protections than those adopted in the *Open Internet Order*.⁴³

C. Open Internet Rules Produce Tremendous Benefits

1. The Open Internet Promotes Continued Innovation and Investment in Edge Services

The open nature of the Internet, by allowing small startups to offer their products and services on largely equal footing with established, well-capitalized companies, continues to produce tremendous economic gains and consumer benefits. The pace of innovation between 2010 and 2014 continues unabated. Innovative edge providers continue to develop services and applications that benefit consumers by disrupting old pre-Internet business models.

- **WhatsApp:** this mobile application is a multiplatform over the top messaging platform that allows users of the app to send text messages without incurring text message fees. WhatsApp works on all major mobile operating systems (iOS, Android, Blackberry) and integrates with Apple's iMessage and Blackberry BBM. Access is either over a Wi-Fi connection or a mobile data plan. Facebook purchased WhatsApp for \$19 billion this past February.⁴⁴

⁴² The Guardian, Net Neutrality Enshrined in Dutch Law (Netherlands), June 22, 2011 (available at <http://www.theguardian.com/technology/2011/jun/23/netherlands-enshrines-net-neutrality-law>.)

⁴³ EU Parliament's Press Release <http://www.europarl.europa.eu/news/en/news-room/content/20140331IPR41232/html/Ensure-open-access-for-internet-service-suppliers-and-ban-roaming-fees-say-MEPs>.

⁴⁴ Reed Albergotti, Douglas Macmillan, Evelyn M. Rusli, *Facebook to Pay \$19 Billion for WhatsApp*, Wall St. Journal, February 19, 2014 (available at <http://online.wsj.com/news/articles/SB10001424052702304914204579393452029288302>).

- **Tumblr:** is an Internet media company that is part microblogging platform and part social networking app. It has become a medium for creativity. Yahoo purchased Tumblr for \$1.1 billion in May 2013.⁴⁵
- **Uber:** is a mobile app for hailing cars driven by professional and nonprofessional drivers that aims to disrupt the taxi and limousine industry by harnessing the on demand capability of mobile apps and congestion pricing. Uber recently raised \$1.2 billion and is valued at \$18.2 billion.⁴⁶
- **Airbnb:** is an app that allows individuals to exchange or rent out their homes or apartments; in April Airbnb raised \$450 million and was valued at \$10 billion.⁴⁷

On a smaller scale, Vonage in 2013 acquired Vocalocity, an over-the-top provider of VoIP service to small business customers, allowing Vonage to use its resources to expand Vocalocity's distribution and help drive lower cost and higher quality service to the small business market, as Vonage has done in the consumer market.

What all of these apps have in common is that they were started by industry outsiders. They were not conceived of by network operators and they did not have to ask permission of network operators to deliver traffic to end users.

Today there are virtually no barriers to the creation of edge applications and services like Vonage or Tumblr. That changes in an economy where established companies can pay ISPs for priority access or to avoid counting under bandwidth caps. Allowing

⁴⁵ Joann S. Lublin, Amir Efrati, Spencer E. Ante, *Yahoo Deal Shows Power Shift*, Wall St. Journal, May 20, 2013 (available at <http://online.wsj.com/news/articles/SB10001424127887324787004578493130789235150>).

⁴⁶ Andrew Ross Sorkin, *Why Uber Might Well Be Worth \$18 Billion*, New York Times, June 9, 2014 (available at <http://dealbook.nytimes.com/2014/06/09/how-uber-pulls-in-billions-all-via-iphone/>).

⁴⁷ Alex Konrad, *Airbnb Cofounders Are Billionaires As Share Economy Leader Closes \$450 Million Round at \$10 Billion Valuation*, Forbes, April 18, 2014 (available at <http://www.forbes.com/sites/alexkonrad/2014/04/18/airbnb-closes-round-at-10-billion/>).

access fees or paid prioritization drives up the level of investment needed to fund development of new apps. This will likely deter some development of new innovative and disruptive edge services.⁴⁸ The public benefits from a free and vibrant market that allows edge services to fail or succeed based on the quality and innovation they offer rather than their ability to pay a gatekeeper's toll. Applications and edge services in such a market survive based on their appeal to users and their ability to attract investor capital, not their ability to strike favorable access deals with ISPs. Allowing ISPs to select winners and losers will certainly chill investment and innovation in startups because they will lack the ability to develop a following among users without getting past the ISP gatekeeper. Investment and innovation in edge services requires certainty that edge providers can develop their services and reach potential users without having to pay tolls.

2. Investment In Broadband Infrastructure Flourished Under The Open Internet Rules

Network operators and their supporters, despite the clear holding in *Verizon*,⁴⁹ continue to claim that the Commission's Open Internet rules, especially when tethered to a sustainable legal framework under Title II of the Act, will reduce the incentive of broadband providers to invest in their networks. This claim simply lacks credibility given the significant broadband network investments between 2005-2008 when the broadband industry, with some exceptions, operated under the premise that the *Internet Policy*

⁴⁸ See *Ex Parte* Letter from G. Sohn, FCC at 1 (filed June 26, 2014) (documenting meeting between Chairman Wheeler and Sam Altman of Y Combinator, Chris Dixon, Adrian Fenty and Erin Grody of Andreessen Horowitz, Mark Gorenberg of Zetta Venture Partners, Kevin Laws of AngelList, Hunter Walk of Homebrew and Jared Kopf of Ad Roll where participants explained the need for startup edge providers to have access to open networks.)

⁴⁹ *Verizon*, 740 F.3d at 644-45.

Statement was enforceable, and again from 2010-2014 between the release of the Open Internet Order and the D.C. Circuit's decision in *Verizon*.

Verizon and AT&T have each made substantial broadband network investments since the FCC's *Internet Policy Statement*. Verizon, for example, announced its FiOS service the same day the Commission released the *Wireline Broadband Order* and the *Internet Policy Statement*.⁵⁰ AT&T in November 2012 announced significant expansion of its IP network deployment after the adoption of the Open Internet rules.⁵¹ AT&T likewise has deployed 1 Gigabit download speeds in Austin,⁵² and has announced interest in further expansion,⁵³ despite being aware of the Commission's commitment to adopting enforceable Open Internet rules. Similarly, cable operators developed and deployed DOCSIS 3.0 in their network, allowing for faster speed and more efficient use of the spectrum in the hybrid fiber/coaxial cable network, despite their awareness of the *Internet Policy Statement* and subsequent proposal to convert that policy statement to codified rules.⁵⁴ Certainly, these deployments dispose of the claim that the Commission's Open Internet framework diminishes broadband network investment.

⁵⁰ Ken Belson, "Verizon Introduces Fiber Optic TV Service". The New York Times (September 23, 2005) (available at <http://www.nytimes.com/2005/09/23/technology/23verizon.html>).

⁵¹ AT&T News Release "AT&T to Invest \$14 Billion to Significantly Expand Wireless and Wireline Broadband Networks, Support Future IP Data Growth and New Services" (Nov. 7, 2012).

⁵² Marguerite Reardon, Google's fiber effect: Fuel for a broadband explosion, CNET (April 30, 2014) (available at <http://www.cnet.com/news/googles-fiber-effect-fuel-for-a-broadband-explosion/>).

⁵³ Marguerite Reardon, AT&T to take gigabit broadband to 21 new metro areas, CNET.com (April 21, 2014) (available at <http://www.cnet.com/news/at-t-to-take-gigabit-broadband-to-21-new-metro-areas/>).

⁵⁴ *Eighth Broadband Report*, 27 FCC Rcd at 10385 ¶ 92.

In the wireless market, the four major CMRS providers have raced to deploy next generation LTE data services to support more robust Internet services.⁵⁵ Verizon Wireless, for instance, by May of 2012, despite the presence of the Commission’s Open Internet rules, deployed its LTE network to 200 million people, with plans to reach its entire footprint by the end of 2013.⁵⁶ AT&T meanwhile planned to deploy LTE to approximately 80 percent of the United States by the end of 2013.⁵⁷ While these services do not provide the speeds available from wired networks,⁵⁸ the investments have been spurred by the robust demand for mobile video due to the surge in sales of tablets and video enabled smartphones. All of these investments, however, occurred in a market where participants were well aware of the restrictions under the Commission’s Open Internet rules.

D. Incentives for Broadband Providers to Interfere with the Open Internet Have Only Increased over the Last Four Years

While the virtuous cycle of edge innovation feeds demand for bandwidth and this promotes further network investment, broadband providers have increased their ability to interfere with the openness of the Internet through significant consolidation and reduction of competition.

⁵⁵ *Sixteenth Wireless Competition Report*, 28 FCC Rcd at 3821 ¶ 181 (“During 2010, 2011, and early 2012, several providers continued to upgrade and expand their networks with technologies that enable faster data transfer speeds”).

⁵⁶ *Id.* at 3824 ¶ 187.

⁵⁷ *Id.* at 3826 ¶ 189.

⁵⁸ *Id.* (“Verizon Wireless advertises that its LTE network provides average data rates of 5-12 Mbps downstream and 2-5 Mbps upstream.”)

In the wired broadband market there continues to be significant consolidation, as demonstrated in the proposed merger between the Nation’s two largest broadband providers, Time Warner Cable (“TWC”) and Comcast. The resulting merger would give Comcast control of approximately 40% of the wired broadband market.⁵⁹ Massing such concentrated power in one provider increases the potential for that company to engage in practices that harm Internet openness.

The *Open Internet Order* recognized that broadband providers have market power with respect to end users and such power “would only increase their power with respect to edge providers.”⁶⁰ The Commission further recognized that broadband providers’ ability to function as gatekeepers due to their “terminating monopoly” gives them market power over edge providers even if they lack the “sort of market concentration that would enable them to impose substantial price increases on end users.”⁶¹

Further concentration in the broadband market exacerbates broadband providers’ ability to act as gatekeepers and their natural incentive to favor their own services over competitive edge services. In the market for wired internet service from cable and phone companies, the proposed acquisition of TWC by Comcast will provide Comcast with a greater incentive and ability to leverage its control of broadband subscribers to discriminate against edge services.

⁵⁹ *Applications of Comcast Corp. and Time Warner Cable Inc. For Consent To Transfer Control of Licenses and Authorizations*, MB Docket No. 14-57, Implications Of The Comcast/Time Warner Cable Transaction For Broadband Competition, Redacted Declaration of Mark A. Israel ¶ 42 (filed April 8, 2014).

⁶⁰ *Verizon*, 740 F.3d at 647 citing *Open Internet Order*, 25 FCC Rcd at 17923 ¶ 32 (broadband provider incentive to discriminate against edge providers rises as end users face higher hurdles to switching providers),

⁶¹ *Id.* at 648 citing *Open Internet Order*, 25 FCC Rcd ¶ 32 n.87.

In the wireless market, continued consolidation also provides broadband ISPs with more powerful incentives to exercise their leverage and act as gatekeepers against certain edge services. The proposed combination of AT&T and DIRECTV poses a substantial risk of exclusionary conduct by the merged entity against edge providers. First, AT&T has already demonstrated in the past that it is willing to impede its mobile users' access to edge VoIP Service over AT&T wireless internet service out of fear that such service, while perhaps boosting AT&T's revenue from selling its data plans, might limit revenue from selling voice minutes.⁶² Similarly, a combined entity may seek to prioritize its end 'user's ability to obtain mobile video content from DIRECTV and impair content from competing edge video providers.

The D.C. Circuit recognized that "if end users could immediately respond to any given broadband provider's attempt to impose restrictions on edge providers by switching broadband providers[,] this could offset the broadband provider's gatekeeper power."⁶³ But continued consolidation in the wireless space makes this harder to achieve, as recent mergers between AT&T and Leap,⁶⁴ and T-Mobile and MetroPCS⁶⁵ have reduced the

⁶² See *NPRM*, ¶ 41 (discussing AT&T's refusal to allow use of the iPhone's face time application when the user was connected to AT&T's mobile data network) AT&T has also impeded VoIP providers' access to mobile Internet users. See *Open Internet Order*, 25 FCC Rcd at 17925 ¶ 35 n.107.

⁶³ *Verizon*, 740 F.3d at 646.

⁶⁴ See generally *Applications of Cricket License Company, LLC, et al., Leap Wireless International, Inc., and AT&T Inc. for Consent To Transfer Control of Authorizations, Application of Cricket License Company, LLC and Leap Licenseco Inc. for Consent to Assignment of Authorization*, Memorandum Opinion and Order, 29 FCC Rcd 2735 (2014).

⁶⁵ *Applications of Deutsche Telekom AG, T-Mobile USA, Inc., and MetroPCS Communications, Inc., For Consent To Transfer of Control of Licenses and Authorizations*, 28 FCC Rcd 2322 (March 12, 2013).

ability of wireless end users to switch to competing providers in the event of potential discrimination against the edge services they may want to access.

The Commission in 2012 again found that “broadband is not being deployed ‘to all Americans’ in a reasonable and timely fashion.”⁶⁶ In that report the Commission defined broadband using a benchmark of 4 Mbps download and 1 Mbps upload and stated its intent to refresh this definition in its 2014 report.⁶⁷ The Commission also measures the latency of broadband networks, since low latency is important for applications such as VoIP and streaming video.⁶⁸ Some services, such as satellite, do not even qualify as broadband since, as of the issuance of the *Eighth Broadband Report*, “there was not a commercially available satellite offering that could provide 4/1 Mbps service to consumers.”⁶⁹

While there exists some competition at the lower bandwidth thresholds there are fewer choices for consumers who desire higher broadband speed. The Commission has found that “higher speeds are important as [it] has seen that greater bandwidth allows for greater utilization of higher data speeds by innovators at the edge of the network which in

⁶⁶ *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act; A National Broadband Plan for Our Future*, Eighth Broadband Progress Report, 27 FCC Rcd 10342, 10344 ¶ 1 (2012) (“*Eighth Broadband Report*”).

⁶⁷ *Id.* at 10361 ¶ 20.

⁶⁸ *Id.* at 10362 ¶ 23.

⁶⁹ *Id.* at 10368 ¶ 41. While some satellite companies have proclaimed availability of higher bandwidth, the high latency of satellite calls into question whether satellite allows end users to send and receive high quality voice and video as required by section 706. *See id.* ¶ 42.

turn drives greater demand and utility of broadband.”⁷⁰ The Commission’s data shows that 54 percent of the households in areas covered by fixed broadband have access to at least three providers offering over 3 Mbps download speeds, 38 percent have access to two providers, and 6 percent have access to only one provider.⁷¹ The number of providers drops off significantly, however, at higher bandwidth levels. Of those connections providing at least 6 Mbps downstream bandwidth, only 10 percent were provided by DSL; nearly 75 percent were provided by cable modem and approximately 14 percent from fiber to the premises.⁷² This demonstrates that as the need for higher bandwidth increases end users become more reliant on cable modem and fiber based services and less reliant on DSL because of its limitations.⁷³

Imposing Open Internet regulation is required even where there is competition. For example, the European Union, which retains strong local loop unbundling rules allowing for more intramodal broadband competition, has proposed Net Neutrality regulation to stem abuses by network operators in markets subject to more competition than the U.S. market. Nonetheless, the limited number of providers offering high speed broadband requires the Commission to enact rules guarding against network operator abuses of their market position. The Commission has long held that “firms operating in a market with two or fewer firms... are likely to recognize their mutual interdependence and...in many cases may engage in strategic behavior, resulting in prices above competi-

⁷⁰ *Id.* at 10385 ¶ 92.

⁷¹ *Internet Access Services: Status as of June 30, 2013*, Industry Analysis and Technology Division, Wireline Competition Bureau, Report, June 2014 at p. 9.

⁷² *Id.* at Chart 12.

⁷³ *Supra* n. 14.

tive levels.”⁷⁴ As former Chairman Powell explained, a duopoly ... decrease[s] incentives to reduce prices, increase[s] the risk of collusion, and inevitably result[s] in less innovation and fewer benefits to consumers. That is the antithesis of what the public interest demands.”⁷⁵ Examples from previous Commission experience, including the mobile wireless industry,⁷⁶ the multichannel video market,⁷⁷ and the then nascent instant messaging industry,⁷⁸ support this analysis.

Taken together, these competitive trends indicate that there is less competition today than there was four years ago and even less than in 2002 when the Commission erroneously predicted that broadband competition would sufficiently restrain the incentives ISPs have to discriminate against and among edge services. In the absence of burgeoning competition, there is a compelling need for Open Internet protections, under a Title II regime, that will protect consumers.

⁷⁴ *Qwest Phoenix Forbearance Order*, 25 FCC Rcd at 8637 ¶ 30.

⁷⁵ *Application of Echostar Communications Corp.*, 17 FCC Rcd 20559, 20684, Separate Statement of Chairman Michael K. Powell (2002).

⁷⁶ *Id.* at 8637-38 ¶ 31 (citing reduction in prices for mobile wireless service after additional competitors were introduced to duopoly cellular market and similar effects in other markets).

⁷⁷ *See Echostar*, 17 FCC Rcd at 20604, ¶ 99 and 20605, ¶ 102 (finding that merger resulting in duopoly carries a “strong presumption of significant anticompetitive effects.”); Statistical Report on Average Rates for Basic Service, Cable Programming Service, and Equipment, 21 FCC Rcd 15087, 15093, Table 1 (2006) (showing that video markets with only two competitors saw higher prices than those with more than two competitors).

⁷⁸ *Applications of Time Warner Inc. and America Online, Inc.*, 16 FCC Rcd 6547, 6617 ¶ 163 (2001) (emphasis added) (imposing conditions on AOL’s instant messenger service because a competitor’s rival service “would be merely a duopoly, not the healthy competition that exists today in electronic mail.”).

III. The Commission Must Adopt New Rules to Protect the Open Internet

Similar to its conclusion in the *Open Internet Order*, the Commission should conclude that general access charges are impermissible, and as it did with respect to paid prioritization in 2010, indicate its skepticism that such arrangements can be squared with the 2010 anti-discrimination rule.

A. The Commission Should Ban Unreasonable Discrimination and Establish a Strong Presumption Against Paid Prioritization

In the *Open Internet Order*, the Commission barred providers from imposing access fees generally,⁷⁹ barred unreasonable discrimination,⁸⁰ and indicated that paid prioritization, would be unlikely to pass muster under such an anti-discrimination rule.⁸¹ Rather than deviate from these principles, the Commission should strengthen its commitment to prohibiting discrimination by adopting Open Internet rules grounded in Title II.

Nothing has changed since 2010 that justifies allowing paid prioritization. As the Commission explained in 2010, “pay for priority would represent a significant departure from historical and current practice.”⁸² In addition, such priority arrangements would likely harm innovation and investment, both by raising the costs of edge providers to cover priority access fees and their transaction costs associated with negotiation of

⁷⁹ *Open Internet Order*, 25 FCC Rcd 17943-44 ¶ 67 (“To the extent that a content, application, or service provider could avoid being blocked only by paying a fee, charging such a fee would not be permissible.”).

⁸⁰ *Id.* at 17945 ¶ 68.

⁸¹ *Id.* at 17947 ¶ 76.

⁸² *Id.* at 17947 ¶ 76.

carriage agreements with ISPs.⁸³ These fees would certainly be excessive because, except for a handful of large providers, most edge providers lack the ability to effectively bargain with the large broadband ISPs.⁸⁴ Further, the ability to implement priority classes of service will incentivize broadband ISPs to “limit the quality of service provided to non-prioritized traffic” in order to motivate edge providers to enter into paid prioritization arrangements.⁸⁵ Lastly, while some commercial edge providers may have the ability to negotiate and pay for priority arrangements, non-commercial services and applications such as those used in health care likely will not and will face disproportionate harm.⁸⁶ In short, the Commission should restore its 2010 rule prohibiting unreasonable discrimination and caution broadband network operators that paid prioritization, while subject to case-by-case evaluation, is likely to run afoul of such prohibition.

1. Requiring Broadband ISPs to Recover Their Costs Directly from End Users is Consistent with Commission Policy

It is reasonable to prohibit network operators from funding their broadband networks by charging edge providers for use of a pipe for which the provider already charges its end users a fee. The same network operators, such as AT&T, and Verizon, that have been most vocal in their desire to allow paid prioritization, have urged the Commission to adopt the exact same “one side market” structure for voice service.⁸⁷ In

⁸³ *Id.*

⁸⁴ *Id.*

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ *See Connect America Fund Order*, 26 FCC Rcd 17663 ¶ 82 n.121 citing Letter from Robert W. Quinn, Jr., AT&T, Steve Davis, CenturyLink, Michael T. Skrivan, FairPoint, Kathleen Q. Abernathy, Frontier, Kathleen Grillo, Verizon, and Michael D.

response to the network operators, the Commission adopted a voice compensation regime where service providers like the ISPs recover their costs directly from their end users rather than from other carriers/providers.⁸⁸ This approach was upheld by the Tenth Circuit.⁸⁹ That court ruled that network operators have no statutory right to recover costs from other carriers for the delivery of voice traffic.⁹⁰ The Commission would be hard-pressed to offer a judicially sustainable rationale to deviate from this principle for delivery of edge provider Internet traffic. Because the rationale for barring a two-sided market for voice compensation was sound, there is no reason for allowing a two-sided market for delivery of Internet traffic.

As with the Commission’s voice compensation regime, requiring broadband ISPs to recover their costs directly through end user charges rather than through opaque charges to other competing providers through paid prioritization arrangements with edge providers is a market-based approach.⁹¹ Under such a regime, because end user charges are subject to some competition, albeit limited, ISPs have an incentive to serve their customers efficiently.⁹² As the Commission explained, “success in the marketplace will

Rhoda, Windstream, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 et al., (filed July 29, 2011) (“ABC Plan”).

⁸⁸ *Connect America Fund Order*, 26 FCC Rcd at 17904 ¶ 737.

⁸⁹ *In re FCC 11-161*, Case No 11-9900 slip op. Intercarrier Compensation pp. 43-44 (May 23, 2014).

⁹⁰ *Id.*

⁹¹ *Connect America Fund Order*, 26 FCC Rcd at 17906-7 ¶ 743.

⁹² *See id.*

reflect an [ISP’s] ability to serve customers efficiently, rather than its ability to extract payments” from edge providers.⁹³

In addition, this one-sided market concept is most consistent with economic principles of cost causation.⁹⁴ Prior to the *Connect America Fund Order*, the Commission’s “calling party pays” regime presumed that only the calling party benefited from the call and thus should bear the network costs.⁹⁵ In the *Connect America Fund Order* the Commission recognized that in two party transmissions both parties typically benefit.⁹⁶ In the context of the delivery of edge services to broadband subscribers, it means that both the end user and edge provider benefit from the transmission. The edge provider is offering something of value to the consumer, whether it is online voice, video or some other content, and the edge provider presumably benefits in some way from being able to do so. Thus, it is appropriate that the edge provider covers its costs of bringing traffic to the ISP and the ISP covers its costs of connecting its paying subscribers to the Internet content, applications and services for which they “click-through.”⁹⁷

B. The Commission Should Reinstate the No-Blocking Rule and Enhance the Transparency Rule

Whether the Commission proceeds under Title II or under section 706, the Commission should reinstate the no-blocking rule and enhance its transparency rule as recommended in the *NPRM*.⁹⁸ While the Commission has the ability to adopt a no-blocking

⁹³ *Id.* at 17913 ¶ 756.

⁹⁴ *Id.* at 17907 ¶ 744.

⁹⁵ *Id.*

⁹⁶ *Id.* .

⁹⁷ *Id.*

⁹⁸ *NPRM* ¶ 66-68; 89.

rule under Section 706, such a rule works better in conjunction with a strong anti-discrimination rule that Vonage suggests is unlikely to survive judicial review under Section 706 authority alone. The Commission, however, may enhance its existing transparency rule under either grant of statutory authority.⁹⁹

1. No-Blocking Rule

In the *Open Internet Order*, the Commission found that the “freedom to send and receive lawful content and to use and provide applications and services without fear of blocking is essential to the Internet’s openness and to competition in adjacent markets such as voice communications and video and audio programming.”¹⁰⁰ This policy has been “broadly accepted” and ISPs have largely committed to continue operating consistent with this principle.¹⁰¹

In the *NPRM*, the Commission stated that “safeguarding consumer’s ability to access and effectively use the lawful content, applications, services and devices of their choice on the Internet” remains ‘an essential component of protecting and promoting an open Internet.’¹⁰² Vonage agrees that maintaining this rule best protects the “virtuous cycle” of Internet innovation and investment. The past nine years of industry agreement with the no-blocking concept, and the dynamic growth and innovation during those years provides compelling evidence that a no-blocking rule is sound policy and promotes innovation and investment.

⁹⁹ See *Verizon*, 740 F.3d at 659.

¹⁰⁰ *Open Internet Order*, 25 FCC Rcd 17941-42 ¶ 62.

¹⁰¹ *Id.*

¹⁰² *NPRM* ¶ 94.

Vonage urges the Commission, using its Title II authority, to reiterate that a broadband ISP policy allowing edge providers to avoid blocking by paying access fees is inherently inconsistent with the no-blocking rule.¹⁰³

2. Enhanced Transparency Rule

Vonage also agrees with the Commission’s proposal to improve the transparency rule adopted in the *Open Internet Order*, and affirmed on appeal.¹⁰⁴ In particular, Vonage agrees that allowing broadband providers to use a single disclosure covering both end users and edge providers does not satisfy the needs of edge providers to understand the ISP’s policies.

The current rule requires each broadband ISP to “publicly disclose accurate information regarding the network management practices, performance, and commercial terms of its broadband Internet access services sufficient for consumers to make informed choices regarding use of such services and for content, application, service, and device providers to develop, market, and maintain Internet offerings.”¹⁰⁵ In practice, however, these disclosures are of limited use, and the requirements of the rule are too vague to permit effective enforcement. Indeed, to Vonage’s knowledge, the Commission to date has not found any disclosure insufficient to satisfy the rule. Yet, disclosures by ISPs vary widely in specificity and usefulness. For example, Comcast advises its users that it “uses *various tools and techniques* to manage its network, deliver the Service, and ensure compliance with this Policy and the Subscriber Agreement. These tools and techniques

¹⁰³ *Open Internet Order*, 25 FCC Rcd at 17943-44 ¶ 67.

¹⁰⁴ *NPRM* ¶ 67.

¹⁰⁵ 47 C.F.R. § 8.3.

are dynamic, like the network and its usage, and can and do change frequently.”¹⁰⁶ Although this disclosure is followed by a list of four “examples” of network management practices that Comcast “may” use (the fourth of which is “other tools and techniques”), it gives users no guidance as to what circumstances may trigger the use of any particular network management practices, or what the effects of those practices might be. CenturyLink’s policy states –

Our network management techniques include ensuring that customer systems are not propagating viruses or distributing spam email (i.e. by preventing virus/spam delivery to customer email accounts). We also reinforce our network with additional capacity in areas where congestion is identified or as part of standard network engineering design plans. In some cases, we may limit the number of customers that may be served on a particular network node until additional capacity can be added. Also, we seek to ensure that our customers are not excessively using the service.¹⁰⁷

This disclosure gives consumers no information about what levels of usage will trigger capacity limitations, or how those limitations will affect user access to the service. These two examples, unfortunately, are typical of the level of disclosure offered by most ISPs under the current rule.

Vonage recommends that the Commission strengthen the transparency rule by requiring more specific disclosures of network management practices. ISPs should be required to disclose specifically *all* network management practices they use, directly or indirectly, that have the purpose or effect of degrading broadband service capacity and/or

¹⁰⁶ Comcast, “Acceptable Use Policy for XFINITY® Internet,” <http://www.comcast.com/Corporate/Customers/Policies/HighSpeedInternetAUP.html>, Section III (visited July 17, 2014) (emphasis supplied).

latency. The rule should also require prompt disclosure to the Commission, as well as to users and edge providers, of any practices that block or degrade performance of content or an application offered by a particular edge provider.¹⁰⁸

Broadband ISPs also should be required to make regular disclosures of network performance data in a uniform format so that the data will be usable by consumers and others. Vonage suggests that the best opportunity to gather uniform performance data that is useful to edge providers, broadband customers, and others is by enhancing and expanding the Measuring Broadband America (MBA) program, as that program already uses standardized measurements that allow comparability across providers. The existing program, however, is lacking in both scope and detail of data collection. Vonage supports improving the MBA program by taking the following steps:

- Require participation by all broadband ISPs;
- Expand measurements to capture local market data;¹⁰⁹
- Provide more frequent access to raw measurement data;¹¹⁰ and
- Revise MBA speed tests to measure and separately report (a) speeds from a Whitebox to M-Lab services located on different Internet backbone providers, and (b) speeds from the Whiteboxes to particular edge providers¹¹¹ to account for content delivered over networks not controlled by the end user's broadband ISP.¹¹²

¹⁰⁷ CenturyLink, “High Speed Internet Service Management,” <http://www.centurylink.com/Pages/AboutUs/Legal/InternetServiceManagement/> (visited July 17, 2014).

¹⁰⁸ See Comments of Cogent Communications Group, Inc. at 22, GN Docket No. 14-28 (filed Mar. 21, 2014) (“Cogent March 21 Comments”).

¹⁰⁹ *Id.* at 12-13.

¹¹⁰ *Id.* at 13-14.

¹¹¹ *Id.* at 23.

¹¹² *Id.* at 15-17.

If the Commission finds that expanding and enhancing the MBA program in this manner is not feasible due to costs or other constraints, then as an alternative it should explore supplementing the current hardware-based Whitebox approach with a software-based measurement approach. Vonage recognizes that the Commission initially selected the hardware-based approach to network performance measurement due to perceived shortcomings of software-based measurements.¹¹³ Nonetheless, the hardware-based approach is much more difficult and expensive to scale up to the level that would be required for measurements that would be useful to consumers seeking to select a broadband service at a particular location, and to edge providers seeking to understand broadband performance at a more granular level to manage their service offerings. The Commission itself has used software-based measurement (its popular FCC Speed Test mobile app) to measure mobile broadband performance within the MBA program. Software-based measurement can be deployed more widely at less cost than an expanded hardware measurement program, and the existing hardware base can be used to check the validity of the more granular network performance data gathered using software tools.

Finally, if the Commission declines to adopt either of the foregoing recommendations, Vonage urges it, at a minimum, to adopt the additional disclosure requirements suggested by Cogent, as follows:¹¹⁴

- Require that performance be disclosed to allow observation of actual speeds at which popular edge provider content is downloaded during peak usage periods at a local level;

¹¹³ FCC, *2013 Measuring Broadband America*, February Report, Technical Appendix, p. 12.

¹¹⁴ Cogent 3/21 Comments at 20-22.

- Require disclosure of packet loss for popular edge provider content downloaded during peak usage periods at a local level;
- Require broadband ISPs to disclose download speeds on a stand-alone basis for their own proprietary services, to create a benchmark against which the download speeds of unaffiliated content can be compared (*e.g.*, performance delivered to Verizon FioS voice traffic); and
- Require broadband ISPs to disclose data sufficient to show network congestion/capacity constraint at interconnection points between their network and other networks, backbone providers, and/or peers with whom they interconnect.

C. The Commission Should Apply One Set of Open Internet Rules to Both Wired and Wireless Broadband

In the *Open Internet Order*, the Commission did not apply the same Open Internet protections to wireless broadband as to wired broadband.¹¹⁵ For instance, the Open Internet Order’s wireless no-blocking rule only applied to edge services competing with the mobile providers’ core voice and video telephony services.¹¹⁶ This arguably allowed wireless broadband providers to discriminate against edge-based text messaging services, mobile wallet applications and video services and applications and others that were deemed “non-core.” Similarly, the Commission declined to extend its anti-discrimination rule to wireless broadband.¹¹⁷

The Commission’s rationale for separate treatment of wireless and wireline broadband is no longer justified. Instead, the same rules should apply to wireless as to wired broadband. In 2010, the Commission gave several reasons why mobile broadband should not be subject to the same restrictions on blocking and discriminating against edge services. It asserted that wireless broadband was a rapidly evolving early stage plat-

¹¹⁵ *Open Internet Order*, 25 FCC Rcd at 17958 ¶ 96.

¹¹⁶ *Id.* at 17959 ¶ 99.

form;¹¹⁸ there was purportedly more competition;¹¹⁹ and the generally slower speeds and capacity constraints facing mobile data providers when compared to wired services.¹²⁰

Thus, the Commission, while applying less rigorous Open Internet protection for the time being, committed to adjust rules where appropriate as circumstances changed.¹²¹ Circumstances *have* changed since 2010, warranting uniformity in wireless and wireline Open Internet protections.

Today mobile broadband is a major platform for consumer broadband access. The capabilities of wireless broadband networks have greatly increased and matured since 2010. The Commission recognizes that [m]obile data traffic is growing significantly, reflecting the continuing evolution of mobile wireless services from voice-centric mobile services to data-centric mobile services.”¹²² Mobile “data traffic increased 62 percent from 2011 to 2012, and that mobile data traffic in 2012 was approximately 73 times the volume of U.S. mobile traffic in 2007.”¹²³ And that volume is expected to increase nine-fold by 2017.¹²⁴

¹¹⁷ *Id.* at 17962 ¶ 104.

¹¹⁸ *Id.* at 17956 ¶ 94.

¹¹⁹ *Id.* at 17957 ¶ 95.

¹²⁰ *Id.*

¹²¹ *See id.* at 17962 ¶ 105.

¹²² *See Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services, Sixteenth Report, 28 FCC Rcd 3700, 3872 ¶¶ 264 (2013) (“Sixteenth Wireless Competition Report”).*

¹²³ *Id.*

¹²⁴ *Id.*

Today, wireless providers are offering consumers the message that they should expect a full web experience on their mobile devices. And consumers are using their mobile broadband connections in many of the same ways they use their wired connections. The bulk of mobile data traffic during the second half of 2011 was generated by streaming video (42 percent), followed by file sharing (26 percent), web browsing (24 percent), VoIP and IM applications (5 percent), and other applications (3 percent).”¹²⁵

Further, as described above in Section II.D, there has been significant consolidation in the wireless market significantly reducing competition.¹²⁶ The market shares of AT&T and Verizon Wireless, the two largest domestic wireless providers, have increased from 2010.¹²⁷ Market concentration in the wireless sector continues to increase.¹²⁸

Rather than adopt less protection, the Commission can instead distinguish between wireline and wireless under the principle of reasonable network management. For example, some types of network management might be reasonable in a wireless network that might not be reasonable in a wired network. But the rules need to remain the same. Wireless providers should no more be able to deny their customers access to the applications, devices and content of their choice than wired providers.

Further, failing to apply the Commission’s Open Internet principles to wireless broadband providers could prevent wireless broadband providers from developing into a viable competitor to wired broadband providers. Applying separate rules is inconsistent

¹²⁵ *Id.*

¹²⁶ *Supra* n. 64-65.

¹²⁷ *Sixteenth Wireless Competition Report*, 28 FCC Rcd at 3753 ¶¶ 52-53, Tables 11-13.

¹²⁸ *Id.* at 3756-57 ¶ 59, Table 14.

with the Commission's goal of a unified technology neutral regulatory regime for all like services.

In its comments in the proceeding leading to the 2010 Open Internet order, Vonage expressed concerns regarding the substantial control wireless providers maintain regarding the devices used on their networks.¹²⁹ Vonage observed how *Carterfone*¹³⁰ unleashed a wave of innovation fostering development of modems, fax machines, answering machines and other telecommunications equipment consumers now take for granted.¹³¹ Applying the Commission's Open Internet rules uniformly to both wired and wireless broadband Internet services will unleash innovation and competition in the wireless market and open the mobile Internet to a new wave of innovation and growth.

Given the enormous growth of wireless broadband and the potential for investment and innovation in third party edge applications and content that harness the capabilities of wireless broadband, allowing such discrimination no longer is consistent with promoting the virtuous cycle of investment and innovation. Instead, fostering such investment and innovation in mobile services requires adoption of the same principles of openness.

IV. The Commission's Proposal to Rely Solely on Section 706 will Not Adequately Protect the Open Internet

The Commission's primary objective in adopting Open Internet protections is to bar network operators from discriminating against edge traffic in favor of its affiliated

¹²⁹ Vonage 2010 Comments at pp. 29-30.

¹³⁰ *Use Of The Carterfone Device In Message Toll Telephone Service*, 13 F.C.C.2d 420 (1968).

¹³¹ *Id.*

legacy services, such as cable television or voice service, or entering into priority arrangements with non-affiliated edge providers and then discriminating against other edge providers competing with the “favored” edge provider. But the Commission’s proposed legal framework relying solely on section 706 does not allow it full enough authority to bar all such arrangements.

Vonage agrees that the Commission has broad authority under Section 706 to protect the Open Internet. As discussed in these comments, Section 706 allows the Commission to enhance its mandatory disclosure rules, adopt a limited anti-blocking rule, and prevent unfair competition by broadband network ISPs against edge service that compete with the ISPs own services or those of affiliated entities. Nonetheless, protecting the Open Internet as an engine for innovation and economic growth requires more.

The Commission’s proposed Section 706 framework does not conclusively bar discrimination or express skepticism regarding the viability of paid priority arrangements under an nondiscrimination rule. Instead, it proposes to allow broadband ISPs to individually negotiate carriage agreements with edge providers as long as such agreements “do not threaten to harm Internet openness.”¹³² Although these steps would address some potential harms to the Open Internet, they would not go far enough to prevent the potential abuses described in the preceding sections. And, indeed, it is clear that as long as the Commission limits itself to its Section 706 authority, it cannot comprehensively address all those potential abuses.

Under *Verizon*, any Open Internet rules adopted under Section 706 must “leave sufficient ‘room for individualized bargaining and discrimination in term’... so as not to

¹³² *NPRM* ¶ 111.

run afoul of the statutory prohibitions on common carrier treatment.”¹³³ This is particularly problematic for the ordinary operation of the Internet. Few edge providers, and certainly no startups, non-profits, or niche providers, will be able to enter into carriage negotiations with every broadband ISP. The D.C. Circuit has effectively stated that requiring the ISP to carry all edge traffic requested by the ISP’s end users is *per se* common carriage. But without this core requirement the very nature of the Internet changes dramatically for the worse.

Enforcement of a “commercially unreasonable” standard under Section 706 that either explicitly or implicitly bars pay for priority would be unlikely to survive judicial scrutiny. As the D.C. Circuit stated, if the Commission “will likely bar broadband providers from charging edge providers for using their service, thus forcing them to sell this service to all who ask at a price of \$0, we see no room at all for ‘individualized bargaining.’”¹³⁴ There is little basis to believe that establishing a presumption against paid prioritization will fare any better.

Vonage contends that allowing pay for priority under all circumstances would undermine the Open Internet by threatening the virtuous circle. Without the knowledge that Internet users can access all the features of the edge application or service, it becomes harder for edge innovators to develop new applications and services. To bring new edge applications and services to market, edge providers require some basic assurance that customers will be able to access their services and use them the way they are designed. Allowing broadband ISPs to charge edge providers for delivery of services undermines

¹³³ *Verizon*, 740 F.3d at 658.

¹³⁴ *See id.*, 740 F.3d at 657, *citing Cellco*, 700 F.3d at 548.

any confidence that users will be able to access any new edge service or application. Moreover, it further undermines confidence investors may have in funding new edge services or applications. This begins to unwind the virtuous cycle of investment and will lead to less, not more, investment in broadband.

Further, proponents of “individualized negotiation” suggest that the availability of “priority” access does not diminish the access available to those edge services that are delivered without any prioritization. But this cannot be correct. If one edge provider has priority access over a broadband network it likely means that other edge providers will have second-class access; their packets will have to be queued behind priority packets (otherwise, “priority” access would be meaningless). Whether delays will be perceptible depends on the level of congestion in the network. Further, the incentives of monopoly/duopoly broadband providers will be to invest only in its priority services and to ensure, even encourage congestion on the pathway available to non-paying edge providers. As indicated above, the Comcast/Netflix dispute shows that ISPs are willing to allow congestion in order to extract monopoly tolls for access to their subscribers.

V. The Commission Should Use Title II Authority To Reestablish Rules Similar To The 2010 Open Internet Rules.

In order to fully protect the Open Internet the FCC needs to reinstate the rules adopted in the *Open Internet Order*, including of course the anti-blocking and anti-discrimination rules. Like it did in 2010, the Commission should explain that under this framework paid prioritization is likely to be found inconsistent with a nondiscrimination rule and a bar on unreasonable practices. And as explained above, wireless has become too important to the Internet ecosystem to allow discrimination and as such, the anti-discrimination rule should be applied to wireless. To the extent wireless providers must

restrict bandwidth-heavy applications to manage their spectrum constrained services, they can do so in a “neutral” manner rather than targeting applications or services based on content or characteristics other than bandwidth usage.

In order to ensure that these rules survive judicial review, as explained above, reliance on Section 706 alone is insufficient. Instead, the Commission must revise its framework classifying broadband internet services to make clear that despite the Commission’s 2002 attempt to “concoct a whole new regime of regulation ... under the guise of statutory construction,”¹³⁵ broadband Internet access, regardless of the transmission media selected, includes a telecommunications service component.

A. The Commission Should Classify the Transmission Component of Wired and Wireless Broadband as a Telecommunications Service.

In the *Cable Modem Declaratory Ruling*, the Commission determined that broadband Internet access was an integrated information service combined with telecommunications transmission, but that such transmission did not mean that the broadband ISP was “offering” telecommunications, as is required for such transmission to come within the ambit of the statute’s definition of “telecommunications service.”¹³⁶ The Commission justified its determination that there was no separate “offer” of transmission because at that time no cable modem service provider was offering transmission separate and apart from the bundle of internet functionality such as email, web browsing and newsgroups, that were the main draw to the Internet at that time.¹³⁷

¹³⁵ *Brand X*, 454 U.S. at 1005 (J. Scalia Dissent).

¹³⁶ 47 U.S.C. § 153(50) (Telecommunications) and 53 (telecommunications service).

¹³⁷ *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4823 ¶ 39.

These assertions were dubious at the time they were made and it is time for the Commission to change course. As Justice Scalia observed in his *Brand X* dissent, “the telecommunications component of cable-modem service retains such ample independent identity that it must be regarded as being on offer – especially when seen from the perspective of the consumer or the end user.”¹³⁸ Similarly, there is “no question that [cable transmission service] merely serves as a conduit for the information services that have already been ‘assembled’ by the cable company in its capacity as ISP”; between the cable ISP connection to the Internet and the last mile transmission to the end user, “[a]ll that remains is for the information in its final, unaltered form, to be delivered (via telecommunications) to the subscriber.”¹³⁹ This description is even more appropriate when applied to information services that the ISP delivers from third party sources of content, as it is plain that the ISP is simply serving as a conduit and nothing more.

More so today than ever, broadband subscribers use their broadband connection for a wide variety of applications and services that are not integrated at all with the ISP’s services. Wireless subscribers download and use millions of apps developed by independent providers: Vonage for voice and messaging apps; Waze to receive turn by turn driving directions; Spotify, Pandora, and others to stream music; Twitter, Facebook, Instagram and Snapchat for social media connections; and they can, and do, use third party mail services, such as AOL, Yahoo, Gmail, and Outlook.com. Most wireless providers have focused their advertising on convincing consumers that their network

¹³⁸ *Brand X*, 545 U.S. at 1008 (J. Scalia dissent.).

¹³⁹ *Id.* at 1010.

provides the best broadband connections, “highlight[ing] their network speed, coverage and the data capabilities of devices available on these networks.”¹⁴⁰

In their homes, consumers want access to high speed broadband for downloading movies from Netflix, Amazon and YouTube. While ISPs like Comcast offer their own email services, web hosting, and video clips, it is no longer the case, if it ever was, that anyone signs up for Comcast broadband to get access to Comcast’s subscriber home page. The pipe is the essential broadband experience and speed and capacity drive buying decisions. Further, more now than in 2000-2006, consumers receive their home phone service and broadband service over the same network rather than separate networks. Network operators offer stand-alone voice and video services as well as broadband over these integrated networks.

The Commission’s justification for its refusal to acknowledge the plain transmission service included in broadband Internet was that “caching” and Domain Name Services (DNS) were the crucial pieces of the ISP offering that forced the “transmission” to be integrated into the ISP offering rather than a stand-alone offer of telecommunications.¹⁴¹ As Justice Scalia points out, however, DNS and caching can reasonably be classified as adjunct to basic or basic service since their core function is “scarcely more than routing information, which is expressly excluded from the definition of information service.”¹⁴²

¹⁴⁰ *Sixteenth Wireless Competition Report*, 28 FCC Rcd at 3850 ¶ 234.

¹⁴¹ *Brand X*, 545 U.S. at 999-1000.

¹⁴² *Id.* at 1012-13 citing 47 U.S.C. §153(24) (definition excludes “use of any such capability for the management, control, or operation of a telecommunications system.”).

B. The Commission Has Ample Authority To Change Its Classification Of Broadband Internet Access Under An Ambiguous Statute

The Commission faces no special or higher burden to justify a revised classification than it did when it justified its original classification. *See Qwest Corp. v. FCC*, 689 F.3d 1214, 1224-25 (10th Cir. 2012). Instead, it “suffices that the new policy is permissible under the statute [and] that there are good reasons for it”¹⁴³ As demonstrated throughout these comments, those good reasons abound. The changes in the broadband marketplace and the remarkable growth of edge services and their importance in the Internet ecosystem support the revised classification and thus provide a “reasoned explanation ... for disregarding facts and circumstances that underlay or were engendered by the prior policy.”¹⁴⁴

Nor is the Commission’s previous classification of broadband transmission the only permissible classification under the statute. In *Brand X*, the Supreme Court “conclu[ded] that the Communications Act is ambiguous about whether cable companies ‘offer’ telecommunications with cable modem service.”¹⁴⁵ The Court specifically stated that the “regulatory history in at least two respects confirms that the term “telecommunications service” is ambiguous.”¹⁴⁶

The *Brand X* concurrence and dissent highlighted the inherent ambiguity in the provision of the Act at issue in the Commission’s classification decision. Justice Breyer, for example, found that the Commission’s decision that broadband Internet did not

¹⁴³ *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009).

¹⁴⁴ *Id.* at 516.

¹⁴⁵ *Brand X*, 545 U.S. at 993.

include a separate telecommunications service was “perhaps just barely” within the Commission’s discretion.¹⁴⁷

Under the familiar *Chevron* doctrine,¹⁴⁸ “[s]tatutory ambiguities will be resolved, within the bounds of reasonable interpretation ... by the administering agency.”¹⁴⁹ It does not matter that the ambiguity in the statute affords the Commission with jurisdiction over broadband internet services over which it had previously relinquished jurisdiction. As the Supreme Court has explained, “*Chevron* applies to cases in which an agency adopts a construction of a jurisdictional provision of a statute it administers.”¹⁵⁰

C. Section 332 Does Not Preclude The Commission From Imposing Title II-Based Open Internet Rules On Wireless Broadband Providers

Sections 332(c)(1) and (3) of the Act require that CMRS providers be regulated under Title II.¹⁵¹ In the *Wireless Broadband Order*, the Commission found that mobile broadband is not a commercial mobile service under Section 332 and thus need not be regulated under Title II.¹⁵² In other contexts, the dominant mobile broadband providers have asserted that regulation of wireless broadband is impermissible because it treats

¹⁴⁶ *Id.*

¹⁴⁷ *Id.* at 1003 (J. Breyer *conc.*).

¹⁴⁸ *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 843 (1984) (where “the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency’s answer is based on a permissible construction of the statute.”).

¹⁴⁹ *City of Arlington, Texas v. FCC*, 133 S.Ct 1863, 1868 (2013) citing *AT&T v. Iowa Utilities Bd.*, 525 U.S. 366, 397 (1999).

¹⁵⁰ *City of Arlington*, 1233 S.Ct. at 1872 citing 1 R. Pierce, *Administrative Law Treatise* § 3.5, p. 187 (2010).

¹⁵¹ 47 C.F.R. § 332(c)(1), (3).

wireless broadband as common carriers when they are not acting as CMRS carriers bound by common carrier obligations.¹⁵³ The Commission need not classify wireless broadband as a CMRS under Section 332 to impose its Open Internet anti-discrimination and anti-blocking rules on wireless broadband providers. It is the provision of a telecommunication service, not provision of a commercial mobile service, that provides the Commission with Title II authority.

Some opponents of the Commission's Open Internet rules have argued that Section 332(c)(2) of the Act prohibits application of the Open Internet's anti-blocking and anti-discrimination rules to wireless broadband.¹⁵⁴ These network operators argue that because the Commission has excluded wireless broadband from the definition of commercial mobile service ("CMRS"),¹⁵⁵ Section 332(c)(2) prohibits the Commission from treating a private mobile service provider as a common carrier.¹⁵⁶

If necessary, however, the Commission has ample authority to re-classify the transmission component of wireless broadband as CMRS. The Act defines CMRS as

any mobile service (as defined in section 153 of this title) that is provided for profit and makes interconnected service available (A) to the public or (B) to such classes of eligible users as to be effectively available to a substantial portion

¹⁵² *Appropriate Treatment for Broadband Access to the Internet Over Wireless Networks*, 22 FCC Rcd 5901, 5915 ¶ 37 (2007).

¹⁵³ *See, e.g., Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Services*, 26 F.C.C.R. 5411, 5443 ¶ 66 (2011).

¹⁵⁴ Comments of Verizon, *Framework for Broadband Internet Service*, GN Docket No. 10-127, pp. 72-74 (filed July 15, 2010).

¹⁵⁵ *Appropriate Regulatory Treatment For Broadband Access to the Internet over Wireless Networks*, 22 FCC Rcd 5901, 5915 ¶ 37 (2007) ("*Wireless Broadband Order*").

¹⁵⁶ 47 C.F.R. § 332(c)(2).

of the public, as specified by regulation by the Commission.¹⁵⁷

The Act further defines “interconnected service” as “service that is interconnected with the public switched network (as such terms are defined by regulation by the Commission).”¹⁵⁸ Congress expressly delegated to the Commission the authority to interpret the key terms in this definition, including “interconnected” and “public switched network.”¹⁵⁹ Since Congress itself recognized that these terms are ambiguous, there can be no doubt about the Commission’s authority to update its interpretation in light of changing technology.

Prior to the adoption of the *Wireless Broadband Order* in 2007, some major CMRS providers, including Cingular, urged the Commission to classify mobile wireless broadband internet service as CMRS. Cingular explained that

Wireless broadband access and advanced services provided by CMRS carriers fall within the statutory definition of “commercial mobile service.” These services are, and will be, enhancements to today’s mobile service offerings – they will utilize the same cellular network architecture as the two-way mobile voice service, will use CMRS spectrum, and will allow seamless hand-off between cell sites as with mobile voice.¹⁶⁰

The *Wireless Broadband Order* ultimately did not address the classification of the transmission component of wireless broadband. Nor did it address the classification of the return path where the edge provider “carries” the traffic from the interconnection with

¹⁵⁷ 47 U.S.C. § 332(d)(1).

¹⁵⁸ 47 U.S.C. § 332(d)(2).

¹⁵⁹ *Regulatory Treatment of Mobile Services*, Second Report and Order, 9 FCC Rcd 1411, para. 56 (1994).

the edge provider to the end user.¹⁶¹ Under either scenario, however, the Commission could classify the transmission component as CMRS. Indeed, the current definition of CMRS needs only a modest change to bring broadband service unequivocally within its scope: Section 20.3 of the Commission’s rules now defines the “public switched network” as being limited to networks that use North American Numbering Plan numbers. By updating this definition to include Internet Protocol addresses as an alternative numbering scheme, which would merely reflect the reality of how the network has evolved since 1994, the Commission could remove any doubt over its authority to treat wireless broadband as a common carrier service.

D. There is Substantial Justification for Revising the Classification of Broadband Internet Service to Include a Telecommunications Service Component

Plainly, the Commission has a compelling interest in protecting the Open Internet, which the D.C. Circuit validated.¹⁶² The D.C. Circuit rejected the claims of those who seek to profit from the ability to discriminate against edge providers and extract monopoly rents from their last mile networks. As discussed above, consumers rely more on unaffiliated edge content and applications than ever.

Edge services can bring choice to consumers in voice and video markets which – absent regulation – would be unprotected against discrimination by last mile providers. More than ever, consumers are electing to cancel their cable television subscriptions and

¹⁶⁰ Comments of Cingular Wireless, LLC, *Wireless Broadband Access Task Force Seeks Public Comment on Issues Related to Commission’s Wireless Broadband Policies*, GN Docket No. 04-163, pp. 14-15 (filed June 3, 2004).

¹⁶¹ See e.g., Narechania and Wu Letter, *supra* n. 6 at pp. 14-15.

¹⁶² *Verizon*, 740 F.3d at 644-45.

to use their broadband connections to receive “over the top” video and voice services from Netflix, Vonage and others.¹⁶³ Free of any regulatory restraint, it is not hard to imagine cable broadband providers blocking or degrading third party voice or video traffic for subscribers that do not purchase a voice plan or pay television package from the cable broadband ISP’s cable television affiliate. Similarly, it is not hard to imagine that same cable company refusing to sell stand-alone broadband and instead requiring subscribers to purchase an affiliated pay television package in order to get broadband. It is not hard to imagine because the RBOCs for years refused to provide stand-alone (or “naked” broadband/DSL), instead requiring that subscribers had to have a voice subscription in order to obtain DSL. Such anti-competitive practices were only possible because the Commission failed to classify broadband transmission as a telecommunications service. Left to their own devices and without regulatory oversight, the RBOCs and cable companies cannot help but to enact policies designed to protect what they have, rather than competing with new more flexible pay television packages or innovative new services that might prevent cord cutting.

Lastly, consumers increasingly obtain basic voice service over (fixed and mobile) networks primarily dedicated to broadband transmission services. Consumers continue to drop POTS lines and shift services either to mobile only or to VoIP. Thus there is now, compared to 2000 or 2006, a heightened public interest in regulating the networks that carry these essential voice services.

¹⁶³ Andrew Wallenstein, Top Wall Street Analyst: Pay TV “Cord-Cutting Is Real,” *Variety* (June 3, 2013) (available at <http://variety.com/2013/digital/news/top-wall-street-analyst-pay-tv-cord-cutting-is-real-1200491763/>).

VI. The Commission Should Forbear From All Title II Regulation Except That Required To Protect The Open Internet

The Commission has broad power under Section 10 of the Act to forbear from applying certain provisions of the Communications Act to particular classes of telecommunications services and telecommunications carriers.¹⁶⁴ Under this provision, the Commission may forbear when it determines that particular provisions of the Act are no longer necessary to ensure that services are provided on just, reasonable rates, terms and conditions; that the regulation is not needed to protect consumers; and that removal of the regulatory requirement is in the public interest.¹⁶⁵

Under this framework, the Commission can reasonably conclude that with respect to broadband transmission telecommunications service, the only provisions of the Act that remain necessary to ensure rates are just and reasonable, that consumers are protected and the public interest is served are those core provisions necessary to preserve the vibrant, free and Open Internet. At a minimum, those provisions are Sections 201, requiring broadband ISPs to provide service to all edge providers when the ISP's end users request content or service from the edge providers, and prohibiting broadband ISPs from engaging in unreasonable practices; Section 202 barring unreasonable discrimination among edge providers; and Section 208, allowing the Commission to resolve Open Internet complaints. These statutory provisions are the core provisions necessary for the Commission to reinstate the Open Internet rules and restore the regulation of broadband to the status quo prior to the D.C. Circuit's decision in Verizon.

¹⁶⁴ 47 U.S.C. § 160(a).

¹⁶⁵ *Id.* § 160(a)(1)-(3).

Reclassification of the transmission component of broadband in this fashion simply restores the broadband ecosystem to the state that existed under the Commission's former rules. It does not impose common carrier rate regulation. It does not subject broadband ISPs to unbundling, mandatory interconnection, or discontinuance regulations. It does not subject edge providers like Apple or Yahoo to common carrier regulation. Nor does it disrupt the current model of how broadband ISPs provide service to end users. It simply makes clear that when an ISP's end user requests access to an edge service, through the use of the ISP's broadband Internet transmission service, the broadband ISP must convey that request and deliver the packets from the edge provider without interference and without imposing access fees.

VII. If The Commission Does Not Use The Title II Approach, It Should Strengthen The Proposed Rules Under Section 706.

If the Commission elects to forego adopting judicially sustainable enforceable Open Internet rules barring discrimination against lawful Internet traffic under Title II, it should at least take steps to protect the Open Internet to the full extent of its limited authority under Section 706.

As Vonage has explained, the Commission has robust authority under Section 706 to protect the Open Internet against certain discrete harms.¹⁶⁶ While Vonage does not believe this authority is sufficient to enact the nondiscrimination rule necessary to restrict paid prioritization, the Commission can adopt enhanced transparency rules; a no-blocking rule that bars blocking or degrading of traffic requested by a broadband ISP's end user; and a fair competition rule that prevents broadband ISPs from using their control of

¹⁶⁶ Comments of Vonage Holdings Corp., at pp. 3-4 (filed March 21, 2014) (“Vonage March 21 Comments”).

broadband network connections to give a competitive advantage to their own affiliates' edge services.

To begin, the Commission can strengthen the transparency provisions to provide a more effective check on conduct that interferes with the Open Internet. As discussed above in Section III.B.2, Vonage agrees with the proposal to require more detailed disclosures for edge providers and end users. The Commission should also adopt a modified no-blocking rule that prohibits broadband providers from blocking edge provider traffic when delivery is requested by the provider's end user. Consistent with *Verizon*, the Commission could establish a requirement that ISPs deliver edge traffic generally, using a reasonable person standard,¹⁶⁷ at the speed contracted for by the end user's arrangement with the ISP.

In order to survive judicial review, this rule would have to leave room for individual bargaining and thus would effectively allow ISPs to negotiate individual agreements with edge providers for "priority" or enhanced access in order avoid running afoul of imposing a *per se* common carriage obligation on a non-common carrier. Thus, as the D.C. Circuit suggested, the Commission's regime would provide a general level of access for all edge provider traffic but leave room for ISPs to negotiate individually tailored arrangements for priority access. Vonage generally opposes such a priority access regime but it prefers this form of no-blocking rule to the absence of any anti-blocking rule. In

¹⁶⁷ *NPRM* ¶ 104. Under this standard, the general level of edge provider access would be benchmarked against the reasonable expectations of the ISP's end user, taking into account the level of bandwidth under the end user's contract. For example, an ISP's end user subscribing to a 25 Mbps service has different expectations than an end user subscribing to the 300 Mbps plan.

addition, the Section 706-based no-blocking rule should make clear that access charges are not permitted, consistent with the 2010 rule.¹⁶⁸

Further, the Commission should bar agreements between a broadband ISP and its affiliate that would provide the affiliate with priority access. Such a restriction appears to satisfy the D.C. Circuit’s interpretation of *per se* common carriage, as it leaves the ISP with substantial flexibility to negotiate paid priority arrangements with non-affiliated third parties.

Lastly, the Commission should consider adopting a rule that it is commercially unreasonable for broadband providers to discriminate against content, applications or services that compete against content, applications or services offered by a broadband provider or its affiliate.¹⁶⁹ This would establish some protection against one significant threat to Internet openness – the natural incentive for vertically integrated broadband providers to disadvantage content, applications or services that compete against content, applications or services offered by the broadband providers.

Affiliation matters for two reasons. First, as the Commission recognizes, affiliation provides broadband providers with the incentive to discriminate: “A broadband provider might use [its] power to benefit its own or affiliated offerings at the expense of unaffiliated offerings.”¹⁷⁰ The *Verizon* court had no “reason to doubt the Commission’s determination that broadband providers may be motivated to discriminate against and among edge providers[,]” including by “interfer[ing] with the operation of third-party

¹⁶⁸ *Open Internet Order*, 25 FCC Rcd ¶ 67.

¹⁶⁹ See Vonage March 21 Comments at pp. 5-6.

¹⁷⁰ *Open Internet Order*, 25 FCC Rcd at 17815-16 ¶¶ 21-22.

Internet-based services that compete with the providers' revenue-generating telephone and/or pay-television services.”¹⁷¹

Second, affiliation permits the offering of bundled products that increase switching costs, thereby increasing the extent to which a broadband subscriber is captive to the broadband provider. Cable and telephone companies are, of course, paradigmatic examples of this, offering triple and quadruple-play packages that often come with substantial early termination charges. Wireless providers also make it difficult for subscribers to switch providers, using significant discounts on handsets and early termination penalties to dissuade subscribers from defecting to competitors.

Market position also matters, as the Commission and the *Verizon* court have both recognized.¹⁷² While a formal finding of market power is not required to justify the Commission's Open Internet rules,¹⁷³ the fact is that the cable and telephone companies between them constitute a virtual broadband access duopoly, in addition to the position of each as the terminating monopoly for its respective end users.¹⁷⁴ Thus, when these dominant providers also offer their own, affiliated content in competition with third party edge providers, there is ample basis for additional safeguards. A prohibition against broadband providers favoring their own affiliates is a far more tailored rule than the blanket prohibition on discrimination applicable under Title II. After all, the rule would

¹⁷¹ *Verizon*, 740 F.3d at 645.

¹⁷² *Id.* at 647-48; *Open Internet Order*, 25 FCC Rcd at 17923 ¶ 32.

¹⁷³ *See id.* at 648.

¹⁷⁴ *Verizon*, 740 F.3d at 646-47.

only come into play if the broadband access provider (or its affiliates) offers a service in competition with edge services.¹⁷⁵

As the *NPRM* suggests, restraints of trade are not commercially reasonable.¹⁷⁶ In addition, this rule would not be a *per se* common carriage requirement as it neither requires a broadband ISP to provide service on indiscriminate terms nor denies the ISP the ability to negotiate individual carriage agreements. Consistent with the D.C. Circuit’s discussion in *Verizon* regarding *Southwestern Cable*, rather, this rule would be “limited to remedying a specific perceived evil” — the favoring of the ISP’s own services over nonaffiliated edge services. While this is far short of the full protection needed to preserve the vibrant Open Internet as intended by prior Commission policies, it would be better than no rule at all.

VIII. Conclusion

Vonage appreciates the ability to offer its perspective on how the Commission should move forward in protecting the Open Internet after the Court’s decision in *Verizon*. For the foregoing reasons, Vonage believes that protecting the Internet as a platform for innovation and economic growth requires the Commission to continue protecting consumers using edge services and applications from potential abuse by those who control bottleneck communications networks. While Vonage recognizes that the Commission has broad authority under Section 706 to adopt some Open Internet protections, it does not have all the authority necessary to continue policies that have fostered the dynamic growth in the Internet economy we have seen in the past.

¹⁷⁵ *Id.* at 655.

¹⁷⁶ *NPRM* ¶ 137 citing *Data Roaming Order* ¶ 26 FCC Rcd at 5433 ¶ 45.

In particular, banning discrimination is a key to survival of the Open Internet, and the Commission does not appear to have the authority to enact a comprehensive nondiscrimination rule under Section 706 alone. For that reason, Vonage respectfully urges the Commission to use its broad authority under the Communications Act to interpret ambiguous statutory provisions and classify the transmission component of broadband internet access as a separate telecommunications service, and to forbear from the application of provisions of Title II beyond those necessary to adopt Open Internet rules. In essence, Vonage recommends the Commission use its Title II authority to restore the status quo that existed up until the D.C. Circuit's decision in *Verizon*. Vonage looks forward to working with the Commission on this effort.

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