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September 16, 2014

The Honorable Patrick J. Leahy  
Chairman  
Senate Judiciary Committee  
437 Russell Senate Office Building  
Washington, DC 20510

The Honorable Chuck Grassley  
Ranking Member  
Senate Judiciary Committee  
135 Hart Senate Office Building  
Washington, DC 20510

Dear Chairman Leahy and Ranking Member Grassley:

On behalf of the more than one million members of the NATIONAL ASSOCIATION OF REALTORS® (NAR), I write in advance of your hearing entitled: "Why Net Neutrality Matters: Protecting Consumers and Competition Through Meaningful Open Internet Rules" to express NAR's belief that open internet rules are necessary to protect our members, who are primarily independent contractors and small businesses, as well as their clients.

As you know, the Federal Communications Commission (FCC) has recently proposed and has sought comment on new Open Internet rules that would permit Internet service providers to discriminate technically against and impose new tolls on American businesses that operate on the Internet. Permitting these actions would be disruptive to our members' businesses that have come to rely on an open Internet. Moreover, these actions would be especially harmful for small businesses and start-ups competing against larger companies that can afford such tolls. In order to continue the economic boom enabled by Internet innovation, NAR supports and has urged the FCC instead to adopt open Internet rules that will protect against blocking, discrimination, access charges, and paid prioritization.

The Internet has been a driving force for innovation for decades, and our members, their Customers, and local communities are benefiting from this innovation every day. The economic growth and job creation fueled by the open Internet is unprecedented in American economic history. This growth has been fostered by the Federal Communications Commission (FCC) under both Republican and Democrat administrations for over a decade.

Our members, who identify themselves as REALTORS®, represent a wide variety of real estate industry professionals. REALTORS® have been early adopters of technology, and are industry innovators who understand that consumers today are seeking real estate information and services that are fast, convenient and comprehensive. Increasingly, technology innovations are driving the delivery of real estate services and the future of REALTORS®' businesses.

Streaming video, Voice over Internet Protocol, and mobile applications are commonly used in our businesses today. In the future, new technologies, like virtual reality and telepresence among others, will be available that will no doubt require open internet access unencumbered by technical or financial discrimination.

NAR supports preserving an open Internet that in turn, promotes small business, job creation and personal liberty. We wish to see the FCC implement strong and enforceable rules of the road to protect the free and open Internet that includes no-blocking and non-discrimination. If left as proposed, the current FCC rule would harm Main Street businesses, such as REALTORS®, and their ability to be competitive in the high-speed, 21<sup>st</sup> century world.



The benefits of broadband Internet for innovation and economic development are unparalleled. But we'll lose those tremendous benefits if the Internet does not remain an open platform, where Americans can innovate without permission and with low barriers to launching small businesses and creating jobs. Given this reality, it is important that this Committee work with the FCC to enact and preserve open Internet policies that promote competition between Internet application and service providers. NAR is ready to work with you on this important issue.

Sincerely,

A handwritten signature in blue ink that reads "Steve Brown". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Steve Brown  
2014 President, National Association of REALTORS®

cc: Members of the Senate Judiciary Committee

**WRITTEN TESTIMONY OF CORYNNE MCSHERRY  
INTELLECTUAL PROPERTY DIRECTOR, ELECTRONIC FRONTIER FOUNDATION  
HEARING ON NETWORK NEUTRALITY  
BEFORE THE SENATE JUDICIARY COMMITTEE**

September 17, 2014

**I. Overview**

An open, neutral, and fast Internet has sparked an explosion of free expression, innovation, and political change and has become an essential tool for basic communication. Internet-based services help us learn, find jobs, organize politically and socially, file tax returns, manage our healthcare, connect to family and friends, and contribute to our common culture.

The principles of openness and neutral handling of data were crucial to the development of the Internet and were once reinforced by competition that allowed dissatisfied users to vote with their wallets. Now, though, companies with quasi-monopoly power over Internet access have grown and begun to abuse that power.

Most Americans have only one or two realistic choices for broadband, making normal market forces inadequate to protect the openness that has characterized the Internet. ISPs have economic incentives to leverage their ownership of the transmission infrastructure at the expense of Internet users, and switching costs and consumer lock-in further undermine the ability of marketplace forces to prevent discriminatory practices.

Regulators can play an important role in curbing such abuse. The Federal Communication Commission (“FCC”) is currently considering this issue.<sup>1</sup> While its goals are laudable, it has sabotaged itself by basing the effort on its authority to promote broadband adoption under Section 706 of the Telecommunications Act.<sup>2</sup> The D.C. Circuit Court of Appeals explained in *Verizon v. FCC*<sup>3</sup> that the FCC cannot impose meaningful non-discrimination obligations on Internet access providers under Section 706. We have therefore urged the FCC to reclassify broadband as a “telecommunications service” governed by Title II of the Communications Act.<sup>4</sup> Reclassification will give the FCC the authority it needs to do its part to support the open Internet.

Because of the danger of over-regulation, we have recommended that the FCC regulate narrowly and deliberately. Net neutrality rules should promote user choice, permissionless innovation, and an application-blind network. Clear and simple prescriptive rules would minimize the practical costs of regulation, particularly for small businesses and new entrants.

We have also recommended that the FCC revisit the open access rule that was once so effective in promoting competition in Internet access services. A rule enabling new entrants to use existing infrastructure could create competition and enable consumers to leave services that undermine the open and neutral Internet.

Finally, broadband should be covered by meaningful transparency rules to help enforce nondiscrimination requirements and give the public the information it needs to create a competitive market. We offer detailed suggestions below to assist in that effort.

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<sup>1</sup> In the Matter of Protecting and Promoting the Open Internet, Notice of Proposed Rulemaking (hereinafter “NPRM”), GN Docket No. 14-28 (May 15, 2014).

<sup>2</sup> 47 U.S.C. § 1302(a), (b).

<sup>3</sup> 740 F.3d 623 (D.C. Cir. 2014).

<sup>4</sup> 47 U.S.C. § 151 et seq.

## II. About EFF

EFF is a member-supported nonprofit organization devoted to protecting civil liberties and free expression in technology, law, policy, and standards. With over 27,000 dues-paying members, EFF is a leading voice in the global and national effort to ensure that fundamental liberties are respected in the digital environment.

EFF has campaigned both in the United States and abroad against ill-considered efforts to block, filter, or degrade access to the public Internet. EFF is actively developing and promoting technological tools that help consumers and public interest groups investigate whether ISPs are interfering with the traffic to and from users' computers. EFF was among the first to independently discover the precise nature of Comcast's 2007 interference with BitTorrent and other peer-to-peer applications.

## III. The FCC Should Regulate Broadband Under Title II, not Section 706

### A. The FCC's Goals Are Laudable, But Its Proposed Rules Do Not Serve Those Goals

The FCC and the D.C. Circuit Court of Appeals identified several serious issues facing the open Internet, including:

- “[B]roadband providers’ potential disruption of edge-provider traffic [is] itself the sort of ‘barrier’ that has ‘the potential to stifle overall investment in Internet infrastructure’”;<sup>5</sup>
- Broadband Internet access providers “have incentives to interfere with the operation of third-party Internet-based services that compete with the providers’ revenue generating telephone and/or pay-telephone services”;<sup>6</sup>
- “[B]roadband providers’ position in the market gives them the economic power to restrict edge-provider traffic and charge for the services they furnish edge providers . . . the provider functions as a ‘terminating monopolist’ . . . [and has] this ability to act as a ‘gatekeeper’”;<sup>7</sup>
- “[E]nd users are unlikely to [switch to a competing broadband provider]” as “end users may not know” that their broadband provider is behaving in non-neutral ways and “even if they do have this information [consumers] may find it costly to switch.”<sup>8</sup>
- In light of recent history, “the threat that broadband providers would utilize their gatekeeper ability to restrict edge-provider traffic is not . . . ‘merely theoretical.’”<sup>9</sup>

Given these threats, regulators can and should take steps to protect the open Internet.

The FCC, however, has offered proposals that run directly contrary to its purported intent by *permitting* discriminatory treatment of edge providers. It proposes a rule against the blocking of “lawful content,

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<sup>5</sup> *Id.* at 642-43, citing *In the Matter of Preserving the Open Internet*, FCC Rcd. 17905, 17969 (2010) at ¶ 120. (hereinafter *Open Internet Order*).

<sup>6</sup> *Id.* at 645-46 citing *Open Internet Order* at ¶¶ 22-24.

<sup>7</sup> *Id.* at 646, citing *Open Internet Order* at ¶ 24.

<sup>8</sup> *Id.* at 646-647, citing *Open Internet Order* at ¶ 27.

<sup>9</sup> *Id.* at 648, citing *Open Internet Order* at ¶ 35.

applications, services or non-harmful devices, subject to reasonable network management.”<sup>10</sup> The FCC also proposes a rule against “commercially unreasonable practices” with another explicit carve-out for “reasonable network management.”<sup>11</sup> These rules would forbid broadband providers from engaging in several kinds of discrimination, but simultaneously allow them to negotiate special arrangements with some edge providers, so long as such arrangements are “commercially reasonable.”

There are several problems with these proposals. First, the proposed rules implicitly bless the blocking of “unlawful” content. This puts ISPs in the position of a court, effectively enjoining content and applications that might or might not be lawful.<sup>12</sup> Such blocking could require snooping on the data habits of its users, even if a court order were required. And ISP practices purportedly aimed at curtailing unlawful activities often interfere with lawful content and activities, posing the same dangers to competition, innovation, and openness as other non-neutral practices. For example, if ISPs deploy blocking mechanisms in the name of copyright enforcement, innovators who want to offer new products and services may have to negotiate with ISPs, hat in hand, to ensure that their products will not be thwarted by these mechanisms.<sup>13</sup>

Second, and more broadly, the proposed rules offer a murky set of guidelines that are more likely to line the pockets of telecommunications lawyers than protect the open Internet. Many practices may be dressed up as “commercially reasonable” or necessary for “reasonable network management,” but still undermine an open and neutral Internet and the free expression and commerce that depend on it. A “commercially reasonable” standard, paired with a “reasonable network management” exception is too vague to be meaningful, and likely difficult to enforce. This is a recipe for litigation and confusion. ISPs have every incentive to quietly discriminate and make deals with established incumbents and then litigate the “reasonableness” of those decisions before the FCC on a case-by-case basis if they are caught. They can afford that risk and expense; innovators and users cannot.

Ironically, the “commercially unreasonable practices” rule and the “reasonable network management” exception are also a recipe for regulatory overreach. While the NPRM lays out a variety of possibilities for what the “commercially unreasonable” rule could accomplish,<sup>14</sup> it remains unclear what is and is not “reasonable,” which will potentially give the FCC veto power over innovation.<sup>15</sup> Broadband providers should not have that power, and neither should the FCC.

Taken together, the proposed rules would inevitably be abused to discourage the emergence of new Internet-based services. Commenter Etsy, Inc., noted that its business would likely have failed if it had to pay for priority access to consumers.<sup>16</sup> Other small businesses and their investors have echoed such concerns.<sup>17</sup>

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<sup>10</sup> NPRM at App. A §§ 8.5, 8.7.

<sup>11</sup> *Id.* at App. A. § 8.7.

<sup>12</sup> See generally Electronic Frontier Foundation Comments, GN Docket No. 09-191, (Jan. 14, 2010), avail. at <https://www.eff.org/files/filenode/nn/EFFNNcomments.pdf>.

<sup>13</sup> *Id.* at 17.

<sup>14</sup> NPRM ¶¶ 116-138.

<sup>15</sup> At least one mobile service provider has found “commercial reasonableness” to be a difficult, uncertain, and anti-competitive standard. See Petition for Expedited Declaratory Ruling of T-Mobile USA, Inc., *Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Services*, WT Docket No. 05-265, at 13 and Exhibit 1, Declaration of Dirk Mosa ¶ 10 (May 27, 2014).

<sup>16</sup> Etsy, Inc. Comments, GN Docket No. 14-28 at 5 (July 8, 2014).

<sup>17</sup> See, e.g. <https://www.techdirt.com/articles/20140710/17450827845/kickstarter-etsy-dwolla-all-speak-out-net-neutrality-why-fccs-plan-is-dangerous-to-innovation.shtml>; [http://openmic.org/files/Open%20MIC%20et%20al\\_GN%20Docket%20No.%2014-28\\_Comment.pdf](http://openmic.org/files/Open%20MIC%20et%20al_GN%20Docket%20No.%2014-28_Comment.pdf); <http://engine.is/wp-content/uploads/Company-Sign-On-Letter.pdf>.

Of course this problem is not confined to a realm of pure commerce. Thanks in large part to the innovative technologies that have been able to flourish on the open Internet, the Internet has become our public square, our newspaper, and our megaphone. The Supreme Court rightly called the Internet “the most participatory form of mass speech yet developed.”<sup>18</sup> In a 2009 speech, then Secretary of State Hillary Clinton credited Internet platforms with giving a voice to “ordinary citizens . . . to organize political movements, or simply exchange ideas and information.”<sup>19</sup> The 2010 election cycle, for example, featured citizen videos dealing with a variety of campaign issues, including illegal immigration, health care reform, education and teachers’ unions, the federal budget deficit, bank bailouts, and taxes.<sup>20</sup> A 2012 study found that 39% of all American adults have used social media to engage in civic or political activities.<sup>21</sup>

Paid prioritization, blocking, access charges and other discriminatory practices could transform this extraordinary engine for civic discourse into something more like the old broadcast model, where a few powerful companies had inordinate power over the public sphere. Internet censorship already occurs via a variety of means, and will become all the more dangerous without network neutrality.<sup>22</sup>

The risks go further still. Across the country, people depend on high-speed Internet to access a variety of public and nonprofit services. Hospitals, libraries, firefighters, churches, schools, and social service organizations need a fast and open Internet, but such entities are unlikely to negotiate with quasi-monopolies for access to the “fast lane.”<sup>23</sup> Instead they, and those that rely upon them, are more likely to be relegated to the “minimum access” slow lane, with little recourse.

According to a recent Pew Center survey, many Internet experts fear that “commercial pressures affecting everything from Internet architecture to the flow of information will endanger the open structure of online life.”<sup>24</sup> Unfortunately, the FCC’s proposed rules are at best ineffective against such a threat.

## B. The FCC Cannot Protect the Open Internet Under Section 706

Many of the flaws in the proposed rules stem from the FCC’s continued reliance on Section 706. The D.C. Circuit’s decision in *Verizon v. FCC*<sup>25</sup> gives the FCC broad statutory authority under Section 706, *except* when it comes to addressing the very practices that “erode Internet openness,” i.e. net neutrality.<sup>26</sup>

In the *Verizon* decision, the D.C. Circuit held that the FCC has authority under Section 706 to promote the deployment of high-speed Internet service, and that the FCC had a good basis for concluding that access providers’ “disruption of edge-provider traffic” through discriminatory practices threatened that deployment by reducing incentives to invest at the edges of the network.<sup>27</sup> But the court went on to hold that any regulations promulgated under Section 706 authority cannot be the sort of regulations that would create common carrier

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<sup>18</sup> *Reno v. ACLU*, 521 U.S. 844, 863 (1997) (citing *ACLU v. Reno*, 929 F. Supp. 824, 883 (E.D. Pa. 1996)).

<sup>19</sup> Hillary Clinton, U.S. Sec’y of State, Remarks to U.S. Global Leadership Coalition (Dec. 7, 2009), available at <http://www.state.gov/statecraft/index.htm>.

<sup>20</sup> CitizenTube Blog, The 2010 Election on YouTube by the Numbers, Nov. 1, 2010, <http://www.citizentube.com/2010/11/2010-election-on-youtube-by-numbers.html>.

<sup>21</sup> See <http://www.pewinternet.org/2012/03/12/main-findings-10/>.

<sup>22</sup> See generally, <https://www.eff.org/free-speech-weak-link>; <https://www.eff.org/issues/bloggers-under-fire>.

<sup>23</sup> See, e.g., <http://www.washingtonpost.com/blogs/the-switch/wp/2014/05/16/why-the-death-of-net-neutrality-would-be-a-disaster-for-libraries/>.

<sup>24</sup> Net Threats, Pew Research Internet Project, July 3, 2014, <http://www.pewinternet.org/2014/07/03/net-threats/>.

<sup>25</sup> 740 F.3d 623 (D.C. Cir. 2014).

<sup>26</sup> NPRM ¶ 26.

<sup>27</sup> 740 F.3d at 523, 640-45.

status.<sup>28</sup> It is clear from the court’s decision that the FCC cannot impose an effective “anti-discrimination obligation [on] broadband providers.”<sup>29</sup>

The very characteristics that will make the open Internet rules effective at achieving their goal are the characteristics that the D.C. Circuit identified as hallmarks of common carriage, and thus impermissible without reclassification. The worrisome ISP practices that the FCC identified in its NPRM, from Comcast’s blocking of peer-to-peer communications to Verizon’s ban on tethering apps to pay-for-priority proposals,<sup>30</sup> have at their core an ISP’s decision to favor or disfavor certain Internet traffic — in other words, to discriminate. But a firm rule prohibiting “unreasonable discrimination” is precisely what the D.C. Circuit said the FCC cannot impose under Section 706.<sup>31</sup>

The opinion also suggested that without reclassification, the FCC *must* permit ISPs to engage in discriminatory paid prioritization — that is, levels of service made available to some edge providers and denied to others. In discussing the no-blocking rule, the D.C. Circuit held that such a rule must, for example, allow Verizon to “charge an edge provider like Netflix for high-speed, priority access while limiting all other edge providers to a more standard service.”<sup>32</sup> This is the essence of a practice that threatens the open Internet and the “virtuous cycle” of investment.

The D.C. Circuit suggested that *some* rules aimed at preserving the open Internet will be legally permissible under the FCC’s Section 706 authority,<sup>33</sup> but the *Verizon* decision makes clear that such rules must be limited in scope, effect, or definiteness to pass muster. A “commercially reasonable” standard, said the court, cannot be applied in a “restrictive manner” that prevents broadband providers from making “individualized decisions.”<sup>34</sup> Also, any particular application of such a rule that is seen as overly “restrictive” will be subject to an “as applied” legal challenge.<sup>35</sup>

## C. A Better Way Forward: Reclassification, Bright-Line Rules

### I. *Reclassify*

The FCC can enact some species of “Open Internet” rules using its Section 706 authority, but the more effective those rules are in both wording and application, the more their lawfulness can be questioned. If it reclassifies broadband service provision as a telecommunications service, however, it can solve this problem.

Reclassification is pure common sense. First, broadband Internet access *is* a telecommunications service. The Telecommunications Act of 1996 defined telecommunications as “the transmission, between or among points specified by the user, of information of the user’s choosing, without change in the form or content of the information as sent and received.”<sup>36</sup> This plainly includes broadband Internet access.

Second, reclassification brings the goals and law of net neutrality into alignment. “Net neutrality” is very close to the much older legal concept of common carriage that applies to most telecommunications

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<sup>28</sup> *Id.* at 650.

<sup>29</sup> *Id.* at 655.

<sup>30</sup> NPRM ¶¶18, 41.

<sup>31</sup> *Verizon* 740 F.3d 623, 655-58.

<sup>32</sup> *Id.* at 658.

<sup>33</sup> 740 F.3d 623, 652 (quoting *Cellco Partnership v. FCC*, 700 F.3d 534, 547 (D.C. Cir. 2012); NPRM ¶¶114-116.

<sup>34</sup> 740 F.3d at 657.

<sup>35</sup> 740 F.3d at 652.

<sup>36</sup> 47 U.S.C. § 153(43) (emphasis added).

services. The FCC applied common carrier non-discrimination rules to telephone service for most of the last century, and that same regulatory scheme helped foster the Internet as we know it today. Broadband Internet access providers perform much the same function once performed by phone lines: they provide the last mile connection to the consumer. The author of the phrase “net neutrality” has called it “the twenty-first century’s version of common carriage.”<sup>37</sup>

Third, there is little question that the FCC has the legal power to reclassify. In *Brand X* the Supreme Court accepted the FCC’s prior classification under *Chevron* deference.<sup>38</sup> It did not rule on the merits of the classification, though four justices suggested that the FCC’s classification was “implausible” or beyond the agency’s authority.<sup>39</sup> The majority noted that a change in circumstances or even administration could justify a change in the classification of broadband Internet access service.<sup>40</sup> The D.C. Circuit has also signaled that reclassification is an appropriate path forward.<sup>41</sup>

Finally, reclassification could help clarify not only the basis for the FCC’s authority, but also its limits. The FCC should not be focused on regulating “the Internet,” (the content carried on the wires) but the wires themselves, i.e., the underlying transmission network. Net neutrality rules should seek to ensure that broadband carriers’ “telecommunications” services occur in a non-discriminatory way. Title II authority will help orient the FCC in precisely that direction.

## 2. *Light, limited, bright-line regulation*

Net neutrality regulation should promote user choice, permissionless innovation, and an application-blind network.<sup>42</sup> In keeping with these goals, such rules should include prohibitions on blocking, application-specific discrimination, and paid prioritization.<sup>43</sup> Internet access providers should not be permitted to charge special fees for the right to reach that provider’s Internet service customers. This is not to say that all tiering of service must be banned; companies could still impose application neutral bandwidth charges. But Internet access providers should never be able to take advantage of their position to effectively direct subscribers toward or away from particular applications, services, or content.

In addition, we have suggested that the FCC forbear from any common carrier regulation that is not clearly essential to meet the above goals and to clarify that its proposed regulations would not reach noncommercial providers of broadband Internet access service, whether they are individuals who operate open Wi-Fi networks at home or public-minded entities that provide free Internet access in their local communities. Federal regulation of these noncommercial, public-spirited initiatives is not necessary to vindicate the openness, competition, innovation, and free expression of the open Internet.

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<sup>37</sup> TIM WU, *THE MASTER SWITCH* 236 (2010).

<sup>38</sup> *NCTA v. Brand X Internet Services*, 545 U.S. 967, 980 (2005).

<sup>39</sup> *Id.* at 1003 (Breyer, S. concurrence, “within the agency’s discretion, but barely”) and 1006 (dissenting opinion of Justice Scalia, joined in part by Justices Souter and Ginsburg); *see also id.* at 1005 (“implausible reading of the statute”).

<sup>40</sup> *Id.* at 981.

<sup>41</sup> *Verizon*, 740 F.3d 623, 650.

<sup>42</sup> *See generally* Barbara van Schewick, *Network Neutrality and Quality of Service: What a Non-Discrimination Rule Should Look Like*, CENTER FOR INTERNET AND SOCIETY, (June 2012), [http://cyberlaw.stanford.edu/files/publication/files/20120611-NetworkNeutrality\\_0.pdf](http://cyberlaw.stanford.edu/files/publication/files/20120611-NetworkNeutrality_0.pdf); *see also* <http://media.law.stanford.edu/publications/archive/pdf/schewick-statement-20100428.pdf>.

<sup>43</sup> *Id.*



#### IV. Open Access to Last-Mile Connections Could Mitigate the Power to Discriminate Through Market Competition, Reducing the Need for More Intrusive Regulation

The market cannot correct abuses of power by ISPs when consumers lack a real choice among providers. One potential regulatory response is the creation of access obligations, such as line sharing, to allow for competition over shared infrastructure.

Following the enactment of the Telecommunications Act of 1996, the FCC imposed a range of competitive last-mile access remedies called for in the Act. Soon thereafter, however, the FCC began to deregulate broadband Internet access.<sup>44</sup> As a result, in 2014 neither cable nor telephone company broadband Internet access is subject to meaningful last-mile access obligations. The *Verizon* court recognized that approximately 14-24 million Americans had no access to broadband,<sup>45</sup> and end users with inadequate service “may have no option to switch, or at least face very limited options,” noting that “as of December, 2009, nearly 70 percent of households lived in census tracts where only one or two wireline or fixed wireless firms provided broadband service.”<sup>46</sup>

Unfortunately, it is currently unclear whether merely imposing last-mile obligations on the U.S. marketplace today will have the desired effects. The situation in 2014 is significantly different than it was in 2002; regulators now at least need to study open access in the fiber, cable, and wireless contexts as well as copper.

We have encouraged the FCC to investigate open access requirements, looking into the effects of past access regulation on competition in the DSL markets; the effects of access regulation on competition in markets outside the United States, such as in the European Union; the economic and technical feasibility of line sharing in the U.S. cable broadband access market and in the emerging U.S. FTTH market; and the likely effects of line sharing and similar access remedies on innovation, competition, consumer welfare, and privacy and First Amendment freedoms on the Internet.

#### V. Mobile Broadband Users Also Need a Neutral Internet

The marketplace for mobile technologies that depend on high-speed Internet access has blossomed since the FCC’s Open Internet Order in 2010.<sup>47</sup> As the FCC noted, minority communities are more likely than other groups to access the Internet on a mobile device instead of a home wire-line connection.<sup>48</sup> The mobile-related cloud broadband and supporting services industry is worth tens of billions of dollars, and grows each year.<sup>49</sup>

Given widespread dependence on mobile Internet access, the Internet should be no less neutral on mobile platforms. Yet examples of discriminatory practices by mobile providers abound. For example, AT&T blocked Apple’s FaceTime application over AT&T’s mobile data network in 2012.<sup>50</sup> In the same year, Verizon

<sup>44</sup> *Cable Modem Declaratory Ruling and Notice of Proposed Rulemaking*, 14 March 2002; see generally *Verizon*, 740 F.3d 623, 631 (describing history of FCC’s exempting broadband providers from Title II obligations beginning in 2002).

<sup>45</sup> *Id.* at 641 (citation omitted) (applying “broadband” benchmark of “four megabytes per second (mbps) for end users to download content from the Internet—twenty times as fast as the prior threshold—and one mbps for end users to upload content.”).

<sup>46</sup> *Id.* at 647 (citation omitted).

<sup>47</sup> See Duggan and Smith, *supra*, note 54.

<sup>48</sup> See *Mobile Technology Fact Sheet*, PEW RESEARCH INTERNET PROJECT (January 2014), <http://www.pewinternet.org/fact-sheets/mobile-technology-fact-sheet/>.

<sup>49</sup> See generally Roger Entner, *The Wireless Industry: The Essential Engine of US Economic Growth*, RECON ANALYTICS, (May 2012), <http://reconanalytics.com/wp-content/uploads/2012/04/Wireless-The-Ubiquitous-Engine-by-Recon-Analytics-1.pdf>.

<sup>50</sup> See David Kravets, AT&T Holding FaceTime Hostage is No Net-Neutrality Breach, WIRED.COM (Aug. 22, 2012) <http://www.wired.com/2012/08/facetime-net-neutrality-flap/>.

reached a \$1.25 million settlement with the FCC for refusing to allow tethering on smartphones.<sup>51</sup> AT&T and T-Mobile both forbid users from using peer-to-peer file sharing applications.<sup>52</sup>

The 2010 Open Internet order prohibited the blocking of “lawful websites” and “applications that compete with the provider’s voice or video telephony services.”<sup>53</sup> Given the expanded diversity of applications that provide voice and video on the Internet, the wording of this rule is now too vague to accomplish its goals.

In particular, mobile broadband service providers should not be allowed to prohibit tethering. Restrictions on tethering are discriminatory and anti-innovative. The FCC has successfully protected tethering via the C Block open access rules. Such protections should extend to all mobile Internet access services.

Zero-rating is also worrisome. Zero-rating refers to the practice of not counting data to and from certain websites or services toward users’ monthly data limits. T-Mobile’s recent announcement of its Music Freedom plan is one example of zero-rating: users can stream all the music they want from certain services without worrying about their data limit.<sup>54</sup> This arrangement, however, discourages users from trying other music streaming sites not in T-Mobile’s list (which might host alternative artists) since those sites will count towards users’ data caps. Zero-rating is a type of data discrimination: it allows a mobile broadband provider to influence what services, websites, and applications people are more likely to use. In this way zero-rating allows mobile broadband providers to pick winners instead of leaving that determination to the market.

## VI. Meaningful Transparency

Transparency is critically important. Without adequate information, a customer experiencing a problem with broadband service may punish the wrong party, blaming the application vendor, device maker, or herself for the problem. As a result, customers will not be able to express their preferences by switching ISPs. This interferes with the market’s ability to protect consumers and correct improper ISP practices. Application innovators also need enough information about ISP practices to enable them to develop new applications and protocols that work reliably without asking permission from ISPs.

Transparency is also vital to enforcement. As we have seen, ISPs are willing to secretly engage in discriminatory practices on their networks and then lie about those practices to the public.<sup>55</sup> Strong transparency requirements will help regulators stop ISPs from saying one thing about their network management practices while doing another.

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<sup>51</sup> See *In re Complaint of Free Press Against Cellco Partnership d/b/a Verizon Wireless for Violating Conditions Imposed on C Block of Upper 700 Mhz Spectrum* (June 6, 2011), available at [http://www.freepress.net/sites/default/files/fp-legacy/FreePress\\_CBlock\\_Complaint.pdf](http://www.freepress.net/sites/default/files/fp-legacy/FreePress_CBlock_Complaint.pdf) and Federal Communications Commission, *News Release: Verizon Wireless to Pay \$1.25 Million to Settle Investigation into Blocking of Consumers’ Access to Certain Mobile Broadband Applications* (July 31, 2012) [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2012/db0731/DOC-315501A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db0731/DOC-315501A1.pdf).

<sup>52</sup> See AT&T Wireless Customer Agreement § 6.2, available at <https://www.att.com/shop/en/legal/terms.html?toskey=wirelessCustomerAgreement#whatAreTheIntendedPurposesOfDataServ> and T-Mobile Terms and Conditions §18, available at [http://www.tmobile.com/Templates/Popup.aspx?PAsset=Ftr\\_Ftr\\_TermsAndConditions&print=true](http://www.tmobile.com/Templates/Popup.aspx?PAsset=Ftr_Ftr_TermsAndConditions&print=true).

<sup>53</sup> NPRM ¶ 21.

<sup>54</sup> See Lily Hay Newman, *T-Mobile Is Making Certain Types of Data Use Free. Which Is Suspicious.*, SLATE.COM (June 27, 2014) [http://www.slate.com/blogs/future\\_tense/2014/06/27/t\\_mobile\\_isn't\\_counting\\_speedtests\\_or\\_certain\\_music\\_streaming\\_toward\\_users.html](http://www.slate.com/blogs/future_tense/2014/06/27/t_mobile_isn't_counting_speedtests_or_certain_music_streaming_toward_users.html).

<sup>55</sup> See Seth Schoen, “Comcast and BitTorrent,” (Sep. 13, 2007) <https://www.eff.org/deeplinks/2007/09/comcast-and-bittorrent>; Fred Von Lohmann, “FCC Rules Against Comcast for BitTorrent Blocking” (Aug. 3, 2008), <https://www.eff.org/deeplinks/2008/08/fcc-rules-against-comcast-bit-torrent-blocking>; See Peter Eckersley, *Comcast Needs to Come Clean*, ELECTRONIC FRONTIER FOUNDATION (October 25, 2007) <https://www.eff.org/deeplinks/2007/10/comcast-needs-come-clean>.

#### A. Advantages and Disadvantages of the Existing Transparency Rule

The existing transparency rule is vague.<sup>56</sup> Most ISPs have complied by including a short passage on their websites describing generally how they deal with congestion, with statistics about how advertised speeds compare to the true speeds users experience. In order to generate these statistics, many of the largest ISPs have taken part in the FCC's Measuring Broadband America study, which uses volunteers across the country to measure broadband speeds.<sup>57</sup> The study averages data about latency, download, and upload speed over one month. This program has helped ensure that the throughput speeds ISPs advertise to customers match the throughput speeds they actually deliver.

While this is a good start, the current disclosure requirements regarding network management practices are too vague and the reported statistics cannot reveal performance issues due to peering, co-location, or content delivery network (CDN) agreements, such as the recent problems Comcast and Verizon subscribers had with slow Netflix download speeds.<sup>58</sup> The Measuring Broadband America program only takes measurements with respect to servers designed explicitly for testing, the connections to which are almost always uncongested. In the latest Measuring Broadband America study, the authors even went out of their way to *exclude* data that showed congestion due to peering issues.<sup>59</sup>

#### B. A Stronger Transparency Rule

Effective transparency requires two kinds of disclosure. The first is a simple disclosure at the point of sale that includes the 95% percentile minimum and maximum speeds the user will experience to a realistic population of well-connected servers, as well as clear warnings about any fast lanes, premium services, blocking or filtering that the user will not have a simple and practical way to avoid.

The second should be a more detailed technical disclosure posted on the ISP's website, which would include CDFs of the sorts of statistics already reported, as well as statistics concerning jitter (the variability in the latency of packets), uptime, and packet loss. These metrics are essential for predicting and debugging the performance of many types of network applications including voice and video over IP; online gaming; and common tools for software development and website administration.

Additionally, these measurements need to capture the customer's experience when talking to end points do not have special peering arrangements with the ISP. Without such measurements the resulting statistics are unlikely to match a customer's true Internet experience.

Finally, any meaningful transparency rule must require ISPs to provide more frequent disclosures as well as detailed disclosures about their network management practices as soon as these network management practices are put into place, if not before. We support the portion of the FCC's proposed transparency rule that requires ISPs to disclose such information "in a timely manner."<sup>60</sup> Any content-specific discrimination, including blocking, throttling, or traffic-shaping, should be explicitly listed in whatever disclosure the ISP

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<sup>56</sup> *In the Matter of Preserving the Open Internet*, FCC Rcd. 17905, 17937 (2010).

<sup>57</sup> Federal Communications Commission, *Measuring Broadband America*, <https://www.fcc.gov/measuring-broadband-america>.

<sup>58</sup> See Associated Press, *Cogent CEO: Comcast purposefully slowed down Netflix streaming*, SAN JOSE MERCURY NEWS (May 8, 2014) [http://www.mercurynews.com/business/ci\\_25723988/cogent-ceo-comcast-purposefully-slowed-down-netflix-streaming](http://www.mercurynews.com/business/ci_25723988/cogent-ceo-comcast-purposefully-slowed-down-netflix-streaming); Jon Brodtkin, *Netflix tells customer, "The Verizon Network is Crowded Right Now"*, ARS TECHNICA (June 4, 2014) <http://arstechnica.com/information-technology/2014/06/netflix-tells-customer-the-verizon-network-is-crowded-right-now/>.

<sup>59</sup> FCC's Office of Engineering and Technology and Consumer and Governmental Affairs Bureau, *Measuring Broadband America 2014: A Report on Consumer Wireline Broadband Performance within the U.S.*, at 27.

<sup>60</sup> NPRM appendix A, rule 8.3c.

makes to satisfy the rule —not buried deep within the legalese of a Terms of Service document.

C. Minimizing the Costs of Transparency

Many ISPs would not face a large burden in collecting high-quality transparency data, as the types of measurements we have described are already commonly used in order to diagnose network problems and enhance network performance. The Measuring Broadband America program could also be used to obtain high-quality data without imposing high costs and burdens on ISPs that do not already have extensive performance data about their networks, or the internal capacity to start efficiently collecting and reporting that data.

D. Privacy Must Be Preserved

The FCC is considering whether ISPs should disclose information about users' data, application, and device usage.<sup>61</sup> In most cases, ISPs should not have sufficient access to provide application- or device-specific reports. ISPs' monitoring what devices had connected to a user's router, what devices are tethered to a user's phone or tablet, or what applications were running on those devices would constitute a deep violation of the subscriber's privacy. A better approach that is consistent with user privacy would put users, rather than carriers, in charge of acquiring such information through applications or software that they can control on their own devices and networks. ISPs should not invade users' privacy in order to provide details on application or device-specific usage.

E. Transparency Must Extend to Edge Providers

The emerging environment of discriminatory peering and co-location practices is a dire threat to innovation on the Internet. The parties most threatened by these developments are those who are trying to make novel and unanticipated uses of the network, including startup companies, open source projects, and developers of new network protocols. The next startup that attempts to offer innovative video streaming products will not have the deep pockets and negotiating strength of Netflix and YouTube.

To counteract the danger of these practices, transparency should include the terms of any peering, co-location, or CDN hosting arrangements ISPs make with other parties. By requiring ISPs to publish the contractual details of these arrangements (as well as any necessary technical data), other parties will be able to request the same reasonable and nondiscriminatory terms without significant negotiation and transaction costs.

## VII. Conclusion

Net neutrality is best accomplished with light regulation setting forth clear rules forbidding discriminatory and anti-competitive practices that threaten the openness of the Internet. The FCC can accomplish this without congressional action, but only if it both reclassifies broadband as a telecommunications service and forbears from imposing any regulations that are not strictly necessary to protect the open Internet.

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<sup>61</sup> NPRM ¶ 73.

**Written Testimony of  
Casey Rae  
VP for Policy and Education  
Future of Music Coalition**

**In the  
“Why Net Neutrality Matters: Protecting  
Consumers and Competition Through Meaningful  
Open Internet Rules”  
Hearing**

**Senate Judiciary Committee**

**September 17, 2014**

Future of Music Coalition (FMC) is pleased to submit the following written testimony for the record in this important hearing on preserving an open Internet. FMC is a nonprofit

organization founded in 2000 by musicians, composers, independent label owners, technologists and artist advocates. Our goal is a diverse musical culture where artists flourish, are compensated fairly for their work, and where fans can find the music they want.

For the past fourteen years, FMC and our artist allies have made a consistent case for accessible communications networks that allow for creative expression, innovation and entrepreneurship. In fact, we have been involved in conversations about net neutrality since before the term was coined. Preserving an open Internet is vitally important to our organization and to the musicians and composers with whom we work. Musicians intuitively understand the dangers of pay-to-play environments, because they have experienced the negative impacts of corporate consolidation in radio and the structural payola it helped engender. This is why thousands of musicians and independent labels are already on record in various FCC proceedings to make the case for clear rules of the road to prohibit Internet Service Providers from picking winners and losers online based on their business—or even political—preferences.

Musicians across genres have consistently gone to bat for net neutrality at concerts, before Congressional committees and in letters and filings. Those in favor of preserving an open Internet include R.E.M., Erin McKeown, OK Go, Kronos Quartet, Pearl Jam, tUnE-yArDs, Nicole Atkins, Preservation hall Jazz Band, Boots Riley of The Coup, and thousands more across the country. All of these creators support a legitimate digital marketplace where a great song, idea or innovation has a chance to find an audience.

By now, it should be obvious that musicians and other creators use the Internet in practically every aspect of their lives and careers—from connecting with fans to booking tours, to selling music and merchandise to collaborating with other artists. Musicians who were around before broadband remember how difficult it was to accomplish simple things like letting people know where and when you were performing, to say nothing of the limitations of physical distribution. By contrast, an artist today can publish their music globally with a tap of a screen or a click of a mouse. Creators of every conceivable background and discipline are able to engage with audiences on their own terms without having to ask permission. This is a powerful thing.

While it is clear that the Internet has created challenges for musicians and other creators, there is no denying that digital technology has made many things easier for countless artists who otherwise would have faced tremendous barriers to entering the marketplace.

Much has been made about the current economic conditions for musicians and composers online. It is certainly the case that artists continue to grapple with many of the changes brought on by technological evolution, but it is also true that any possible solutions to these difficulties are more likely to come from an open, accessible Internet rather than a closed system that serves a privileged few. Artists simply want the opportunity for their creative expression to compete its own merits, and not have their success be pre-determined by a handful of powerful ISPs.

Currently, the music community is experiencing yet another shift, from downloads to streaming. Musicians and composers are not a monolithic group, and there are differences of opinion about which models are appropriate. This is as it should be: the music industry was never one single way of doing business, but rather a diverse array of approaches based on the individual goals of participants. This diversity is to be celebrated, particularly when it comes to emerging technologies. For example, it's not uncommon these days to hear from a musician that thinks Spotify is not a sustainable model for artists. Perhaps this musician prefers Bandcamp, which allows pricing flexibility and greater opportunities to directly engage with listeners. What happens if an ISP decides that Spotify can pay more and blocks or otherwise interferes with traffic from the smaller platform? What if an ISP charges overages for data on a certain application, but exempts traffic from its preferred partners? Musicians have been down this road before with commercial radio ownership consolidation and institutional payola. A pay-to-play Internet would be devastating to small-to-medium sized enterprises in both the music and technology sectors. And it would be bad for fans that deserve the opportunity to patronize the lawful platforms of their choosing—particularly those that provide better economic returns to creators and allow for new ways for artists to take charge of their lives and careers.

Telecommunications and cable companies have an important role to play in a functional 21st century media ecosystem. There is nothing inherently wrong with their desire to operate profitable businesses, but they must not be allowed to do so at the expense of



those who depend on open networks to express themselves creatively and pursue their own entrepreneurial goals. It is important to remember that creative expression—including a diverse array of lawful, licensed music—is a chief reason people go online. Musicians and other artists are entirely aware that part of what has driven the expansion of broadband is their creativity and the innovations that enable them to reach fans.

The work of artists must be valued in a way that is commensurate with demand; there is still a great deal to be done to ensure that creators are treated fairly in the digital age. But policymakers would do upcoming generations of artists a disservice should they allow ISPs to dictate economic terms for creators for sole the purpose of expanding their own bottom lines. Without meaningful rules to prevent discrimination and anticompetitive behavior, this is exactly what will occur.

For several iterations of this debate, Future of Music Coalition and our friends in the broader cultural sector have been content with making the case for basic rules of the road to preserve access and innovation online. Having closely examined the FCC's currently proposed rules, however, we feel strongly that the best course of action is for the Commission to reclassify broadband Internet service as a common carrier under Title II of the Telecommunications Act. In addition to the thousands of artists and independent labels in the official record, more than two-dozen prominent arts and cultural organizations in all 50 states have also urged the FCC to adopt the strongest rules possible. They join more than 3 million Americans from all walks of life calling overwhelmingly for reclassification. At this point, it is hard to ignore the

evidence: the FCC has received the most public comments in any docket in history—99 percent of which demand the placement of broadband Internet service under Title II.

Nothing in the ISP arguments in any way convinces us that broadband Internet service should not exist under a common carrier framework. The giant telecommunications and cable companies would probably like to think that musicians and other creators aren't sophisticated enough to understand what they're trying to do, which is no less than establish a pay-to-play Internet where only the biggest companies can thrive. But artists and the vast majority of Americans know that you can't have a free market without the ability to compete. The FCC must take the necessary steps to ensure that creativity and entrepreneurship can continue to flourish online. And this means reclassification.

The main barrier appears to be political will. This is where Congress can help. Access and innovation are not bipartisan concerns; we have seen members of this very committee tweeting during the State of the Union address. Where do you think Twitter came from? The answer is an open Internet where one can build and promote the next amazing innovation without having to ask permission or pay a toll to an ISP. Whether it's outreach to constituents or delivering an amazing song, the ability to utilize the most important communications platform in history without the interference of gatekeepers should be of utmost importance to each of you. Common carrier is not some left-field concept. It is a bedrock principle that has informed communications policy for nearly a hundred years—a particularly lucrative century for incumbent companies such as AT&T that built durable empires under its consumer-friendly provisions.

Some would raise the specter of lawsuits to discourage the FCC from doing what it should to protect the interests of entrepreneurs and the public. It is important to understand that there is but one test that the FCC must pass, and that is justifying its decision to reclassify. Given that the Supreme Court has already validated a previous decision to do so, the government will likely persevere in its argument that a move to Title II is not “arbitrary and capricious.” Actually, a return to the prior designation is sober and informed, as the past decade has proven that users subscribe to broadband service in order to access the Internet, not to purchase a suite of bundled “information services” from an ISP. Upon reclassification, we hope that the ISPs will recognize that litigation is ill-considered and destined to fail.

The FCC has the legal authority to prevent discrimination and paid prioritization online; it only needs to exercise this authority. We are unconvinced, however, that its current proposal under Section 706 is the way in which to do so.

Meaningful rules must be enforceable. We take Chairman Wheeler at his word that he will be aggressive in the application of a “commercial reasonableness” standard under 706. But can the same be said for future leadership? What guarantee do we have that an after-the-fact approach to enforcement will prevent the ISPs from taking advantage anywhere they can and then deploying their armies of lawyers and lobbyists to justify their mischief? Clear net neutrality rules under Title II will let the ISPs know up front what is and isn’t permissible. This is the regulatory structure that the FCC must put

forward in its rulemaking, one that is already endorsed by more than three million Americans who have filed comments with the Commission.

Congress must be willing to show support to the FCC as it establishes clear rules of the road to preserve access and innovation for generations to come. When you do, rest assured that Future of Music Coalition and our peers and allies across the creative sector will have your back. Thank you for the opportunity to share our perspectives as you consider these important matters.

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**Statement of the Computer & Communications Industry  
Association (CCIA)**

Why Net Neutrality Matters: Protecting Consumers and Competition  
Through Meaningful Open Internet Rules

**Committee on the Judiciary  
U.S. Senate**

September 17, 2014

CCIA hereby submits its statement for the record of the above-referenced hearing. CCIA is an international organization that represents companies of all sizes in the high technology sector, including computer software, electronic commerce, telecommunications, and Internet products and services.

Ever since our involvement in the antitrust case that resulted in the break-up of AT&T in the early 1980s, CCIA has been a strong and consistent advocate for open networks and full and fair competition. When the World Wide Web was launched in the early 1990s and for more than a decade following, dial-up connections to the Internet were common carrier telecommunications services subject to Title II of the Communications Act. AOL, Compuserv, Yahoo!, Amazon, Google, and eBay, on the other hand, were unregulated information services with nondiscriminatory access to the networks. After the FCC also classified both cable and telco provided broadband Internet access connections as unregulated “information services” in 2002-2005, CCIA worked vigorously for enforceable rules to keep the underlying transmission networks open for end users and so-called “edge providers” of online content and services. CCIA was a founding member of the Open Internet Coalition which at first championed enforceability of the FCC’s 2005 Internet Policy Statement, that aimed to give consumers rights regarding online access to the services and content of their choice free of blocking. Comcast, in a case involving throttling of BitTorrent, challenged the enforceability of the FCC Internet policy in court and won. The Open Internet Coalition then began to focus on a modified, light touch common carrier framework for broadband Internet access.

In 2010 the FCC adopted Open Internet rules, which were then invalidated early this year in *Verizon v. FCC*, largely because Internet access was still classified as an information service, rather than as an essential two-way telecommunications service.

Post *Verizon*, American residential, business and nonprofit Internet consumers are all without any legal protections for the open Internet access they have come to expect and rely on in their daily life and work. Given our broadband Internet access network operators' newly confirmed freedom from legal obligations to end-users, open Internet access is at risk.

Despite the IAPs' claims that Title II reclassification will hamper incentives to investment in the network, no clear causal link has been articulated to support this contention. In fact, as Free Press has documented, Cable and Telecommunications companies invested *more* money in their networks when they were regulated as a Title II service. Furthermore, the IAPs have requested to be classified under Title II in the past in order to get the tax breaks and universal service subsidies that accompany it. Not surprisingly, IAPs did not complain then that such a classification would diminish their incentives to invest.

What is clear from the open Internet comments submitted to the FCC, however, is that without open access safeguards, investment and innovation in over-the-top Internet applications and services – which would need either the implicit or explicit permission of the IAPs – would be in real jeopardy. For the Internet marketplace to thrive, investors in start-ups need confidence that their products and services will be easily accessible to all online over the Internet.

Where network facilities competition is limited to duopoly or oligopoly conditions, the IAPs have basic economic incentives to profit from scarcity and congestion on their existing networks rather than invest in comprehensive upgrades.<sup>1</sup> Google Fiber and community broadband networks are only just getting started in a handful of cities and towns.

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<sup>1</sup> See James J. Heaney, *Why Free Marketeers Want to Regulate the Internet*, DE CIVITATE (Sep. 15, 2014), available at <http://www.jamesjheaney.com/2014/09/15/why-free-marketeers-want-to-regulate-the-internet/> for economic analysis of need for regulatory safeguards for Internet access.

So the FCC must continue to promote greater network competition, which will spur greater investment by the IAPs. Meanwhile, the FCC must use its clear legal authority over telecommunications to prevent degradation of our Internet access. The IAPs' empty threat that open Internet rules will cause them not to invest in their networks is the same one they use traditionally to oppose any FCC action they do not like. Only companies with dominant positions facing insufficient competition can even get an audience for such threats. In a truly competitive market the need to beat the competition incentivizes investment and innovation.

Antitrust law is designed to protect trade and commerce from unfair business practices and remedy anticompetitive market conduct by dominant firms and monopolies that reduces or eliminates competition. However, antitrust cases typically consume massive financial resources from both the private sector and the government and usually take years, and sometimes more than a decade, to prosecute. Furthermore, legal precedent around a firm's "duty to deal" with its competitors is murky and often contradictory, but it is generally recognized that even monopolists do not have to supply their competitors. Therefore, taking an antitrust approach to open Internet will not give the market the certainty necessary to ensure innovation and investment in all layers of the Internet.

Antitrust enforcement generally works best in markets where competition is the norm and not the exception. Under such conditions, individual cases can be used to restore a competitive market when a company acquires market power and uses it anti-competitively. Where markets are chronically less than competitive for structural reasons, expert agencies are generally tasked with ensuring that market power is not continually abused. Using antitrust enforcement to supervise a chronically non-competitive market is less desirable than the supervision of an expert agency tasked with promoting consumer welfare, as replacing an expert agency with a patchwork quilt of generalist court rulings is more expensive, creates more uncertainty, and does little to protect startups and smaller competitors who are often forced from the market before the court proceedings are finalized.

However, promoting competition is recognized as only part of the FCC's continuing obligation to protect "the public interest, convenience and necessity" regarding the universal availability of communications by wire and radio spectrum. The agency has the authority to make rules governing public access to everything from radio and TV stations to voice telephony, from satellite services to emergency services. Vibrant competition among communications companies certainly has public benefits that the FCC encourages and well recognizes, but the expert agency has specific responsibility for public communications services that goes beyond just disciplining behavior among commercial competitors.

The Internet is a network of interconnected networks that exchange data traffic at dozens of exchange points (IXPs) in the U.S. alone and many more around the globe. Online information service platforms pay for their own long-haul transit and larger ones often build or buy capacity from more localized content delivery networks (CDNs). Up to this point, markets are competitive. However, even when a U.S. business or household has a couple of choices for Internet access, once signed up with a particular company, that IAP has a monopoly on local delivery of Internet traffic to that subscriber. That is, the business or household not only must use that IAP for uploads, but nothing can be downloaded except through that chosen IAP. This terminating access monopoly provides an IAP the leverage to charge online content providers such as Netflix unlimited access tolls just to "open the door" and let the subscriber's requested video streaming through. That's true despite the fact that the subscriber has already paid monthly for that service. No party is getting or asking for anything "for free" here. The terminating monopoly also allows an IAP to impose discriminatory data caps that exempt its own affiliated content, such as premium sports or TV shows, but render other video choices that use equivalent bandwidth relatively more expensive. IAPs have a similar incentive and ability to charge competing providers of cloud and data storage services for local network access while their own cloud service would be free of such tolls, and therefore less expensive. Since end users cannot easily switch to a competing IAP that would not disadvantage their over-the-top choices, strong open Internet rules are urgently needed.



Even if IAPs do not have any intentions of discriminating against small businesses or nonprofits, selling priority speeds or quality of service to the largest online content companies will have the inevitable result of degrading throughput to other edge providers given the finite capacity of their networks. And once the harm is done, it will not only be too late for an aggrieved start-up to bring an antitrust case it cannot afford, it will be too late for the FCC to crack down and unwind all the contracts for paid prioritization that have proliferated. That's why the FCC must not waste time in adopting enforceable open Internet rules.

The impact of the FCC's decision on open Internet rules will be felt far into the future, not just in the U.S., but also around the world where the governments of many diverse nations take cues from ours. People everywhere need Internet access free from restrictions so they can access products and services, including personally empowering information online. While the term "net neutrality" has grown controversial in the U.S. and is susceptible to many conflicting definitions, the consensus goal of maintaining open Internet access is a strong bipartisan one that in fact the U.S. government works toward regularly at international multi-stakeholder meetings regarding Internet management. While the U.S. opposes any international regulation of the Internet, and cautions against national government restrictions like censorship and data localization mandates, we would certainly not take issue with any other nation's efforts to enshrine their own citizens' right to open Internet access into law, which is exactly what the FCC is aiming for in its current proceeding. And that task is of paramount importance for the growth and long-term health of the US economy.