

**BEFORE THE  
Federal Communications Commission  
WASHINGTON, D.C.**

In the Matter of	)	
	)	
Preserving the Open Internet	)	GN Docket No. 09-191
	)	
Broadband Industry Practices	)	WC Docket No. 07-52

**REPLY COMMENTS OF CHARTER COMMUNICATIONS**

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## EXECUTIVE SUMMARY

Approximately 120,000 comments were filed in this proceeding, many tens of thousands by rule proponents, yet despite the Notice’s plea for “relevant data” and “fact based” responses, not a single fact was produced to justify imposition of the proposed rules. Reminiscent of the “sky is falling” advocacy of “open access” supporters a decade ago, net neutrality proponents rely on speculative theories and hypothetical bad behaviors to predict that today’s thriving open Internet ecosystem, which is flourishing unfettered by government involvement, is doomed absent government intervention. Years of study and scrutiny of broadband provider conduct by vigilant net neutrality proponents and federal agencies, as well as the Commission’s concern that improper conduct was “occurring in the marketplace,” have turned up nothing beyond the two isolated cases *Madison River* and *Comcast/BitTorrent* – both promptly resolved under the current regulatory regime. There is no evidence of broadband provider behavior harming consumers, of any market failure, or for that matter of any problem that actually needs fixing.

Given this record, the recent D.C. Circuit ruling that the Commission does not have authority to regulate the Internet as proposed provides an opportunity for the Commission to step back and pursue a less radical path. As explained in this Reply, the current system is working and the Commission should not use the court ruling as a pretext to impose monopoly era Title II regulation on the Internet. Such classification was rejected by the Commission almost a decade ago consistent with the objectives of Congress that the Internet should remain “unfettered” by government regulation. This policy has been successful beyond imagination and the Internet remains free and open today and will continue so consistent with the Commission’s Internet Policy Statement. This approach holds the most promise for promoting innovation, investment,

job creation and broadband adoption to achieve the ambitious goals of the National Broadband Plan.

The reality is that broadband providers have spent hundreds of billions of dollars to create today's broadband networks in response to competition and customer demand, not as a result of government fiat. Competition among broadband providers is fierce and intensifying as competing wireline networks are widely deployed and wireless broadband services rapidly increase penetration and are adopted disproportionately by younger consumers. The theories that consumers are "locked in" by "switching costs" to existing broadband providers and are therefore unwilling to vote with their feet at the first sign of anti-consumer behavior (e.g., slower speeds, higher prices, blocked or degraded services or poor technical support, etc.) simply do not square with the facts. Significant shifts in market share between cable and telephone company broadband providers over the years and the growing market penetration of wireless broadband providers belie concerns that consumers are not intensely aware of their marketplace options and able to switch services if their broadband service does not live up to expectations or the competition. In the meantime, Internet content, applications and services continue to proliferate in the dynamic and competitive Internet ecosystem. There is simply no record of market failure or bad conduct to justify the proposed rules.

The marketplace does not tolerate any behavior perceived by existing customers or the numerous watchdog groups overseeing the Internet (both private and governmental) as anti-consumer. At the first hint of such issues, competing broadband providers would begin poaching customers from their rivals and use any negative publicity against them to attract new customers just entering the broadband market. Given this marketplace reality, Charter invested heavily in its network over the past decade (over \$8 billion) to upgrade plant and to aggressively roll out

DOCSIS 3.0 wideband services, and it will continue to invest and improve its network so that customers can enjoy the most advanced services available, including over-the-top services.

Virtually all broadband network providers have done the same and spent billions to improve networks and expand capacity to deliver video and other content, applications and services. At the very time that proponents' theories and speculation would predict that market abuse and underinvestment would be pervasive, the opposite is in fact the case.

The comments do establish that the proposed rules will harm investment and innovation, undermine broadband adoption, exacerbate the digital divide and harm job growth – all contrary to the objectives of the National Broadband Plan. Given the incredible Internet-enabled advancements and innovations seen over just the past several years and the dynamic technical and market changes still underway, it is likely that even well intentioned Commission regulations will miss the mark and have many unintended consequences. Even now it appears that the proposed rules would outlaw or at least obstruct business models that benefit consumers, both existing (e.g., the Kindle, Apps stores, etc., to the extent payments from the edge to the core are banned) and those yet to be imagined as the line between the edge and core continues to blur. New entrepreneurs that need quality of service enhancements from broadband providers to compete against Google's multi-billion dollar transmission and server network, and against other entrenched and well funded interests, will be less able to launch service and compete.

The National Broadband Plan relies on hundreds of billions of dollars in private capital investment to fund next generation broadband networks and it is critical that public policies do not undermine private investment incentives. However, broadband providers that are prevented from, or must seek permission before, experimenting with two-sided business models or introducing managed and specialized services will have reduced profit prospects and be less able

to attract capital to invest in expanding and upgrading networks. Without revenues from additional sources, end users will foot a higher share of network costs thereby driving up rates and harming adoption, disproportionately among minorities. Such artificial constraints on revenues will disproportionately undermine the creation of new, high paying jobs that are far more likely to be generated by broadband providers compared to jobs generated by the edge.

The record demonstrates not only that there is no rational basis to justify imposition of the proposed rules but, as recently ruled by the D.C. Circuit, the Commission lacks the claimed ancillary authority to do so. Moreover, there is absolutely nothing in the record to justify any reversal of the Commission's previous decisions by now classifying broadband under Title II and the Commission should not use the court ruling as a pretext to impose such monopoly era regulation over the Internet. The Commission classified cable broadband as an information service based on an extensive record justifying the classification that was upheld by the Supreme Court in 2005. Similar rulings based on equally extensive records classified wireline and wireless broadband services under Title I. To change course now without any justification on the record would be arbitrary and capricious. In addition to these infirmities, imposition of the proposed rules would violate both the First Amendment and the Fifth Amendment rights of broadband providers.

To the extent the Commission decides to adopt the net neutrality rules in spite of this record, such rules should apply to all parties in the Internet ecosystem (i.e., core and edge, wireline and wireless providers) and be narrowly tailored to minimize the harm that the rules will inflict. Only "unreasonable and anticompetitive" discrimination should be prohibited – two-sided paying arrangements involving edge providers should be explicitly endorsed unless

anticompetitive. Network management oversight must be extremely flexible to allow networks to combat congestion, malware and network harm without fear of triggering litigation.

Managed services must be encouraged and protected in order to ensure that broadband providers can innovate and experiment as technology and the Internet continue to evolve. New revenues from managed services will be essential to attract investment that will make continued improvement of existing networks and construction of next generation networks possible. The Commission should reject calls to conduct further proceedings before endorsing and permitting the provision of managed services over shared broadband facilities free from net neutrality restrictions. The actual investments made by broadband providers over the past decade refute speculation that providers will “starve” the Internet in favor of managed services.

Charter supports transparency with regard to network management practices to battle congestion and to protect the network and end users from malware, spam and other harmful or illegal transmissions. In general, the competitive market is sufficient to strike the right balance between reasonable disclosures that are useful to end users and overly detailed and technical requirements that will be at best ignored by consumers and, at worst, used by third parties to circumvent network management protections. The Commission should work with broadband providers and others in the Internet ecosystem to establish best practices on disclosure and target any more formal reporting and filing requirements to situations where problems are identified. Any transparency obligation should be for the benefit of end users only and posted on a company’s website. Such disclosures would then be available to other interested parties and to government agencies for review. Transparency obligations should also apply not just to the core but to all participants in the Internet ecosystem, including edge providers. With properly balanced disclosures the Commission can rely on competition, online community policing, the

existing Internet principles and antitrust oversight to ensure that the purely theoretical concerns regarding preservation of an open Internet will not materialize.

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**REPLY COMMENTS OF CHARTER COMMUNICATIONS**

Charter Communications replies to the comments filed in the captioned Notice of Proposed Rulemaking.

**I. THERE IS NO RECORD TO JUSTIFY IMPOSITION OF THE PROPOSED RULES**

A. The Record Contains Only Unsupported Allegations/Theories Regarding Harmful Provider Conduct

Much has been written by net neutrality proponents regarding the theoretical possibility that broadband providers have the “incentive and the ability” to engage in behavior that will harm consumers and undermine the open nature of the Internet.<sup>1</sup> At the same time, there is near unanimity among proponents and opponents alike that the current Internet, which evolved to its present state under the Commission’s existing regulatory regime including the Internet Policy Statement, is a remarkable success. The Commission’s basis for proposing rules to change the current successful Internet marketplace balance is that “conduct is occurring in the marketplace that warrants closer attention and could call for additional action by the Commission.”<sup>2</sup> As many

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<sup>1</sup> See, e.g., *Preserving the Open Internet; Broadband Internet Practices*, Notice of Proposed Rulemaking, FCC 09-93, 24 FCC Rcd. 13064, ¶ 71 (2009) (hereinafter “NPRM” or Notice”), Comments of Google Inc. at 58; Comments of Public Knowledge, et al. at 23 (hereinafter “Public Interest Commenters” or “PIC”); Comments of Free Press at 14.

<sup>2</sup> Notice ¶ 50.

have observed, the only conduct identified by the Commission involved the Madison River case, which occurred in 2005 and was promptly resolved even prior to the adoption of the Commission’s Internet Policy Statement, and the 2007 Comcast/BitTorrent case involving P2P network management practices that the parties voluntarily resolved well before the Commission issued its August 2008 decision.<sup>3</sup> While the Commission specifically requested parties to supply facts to back up their positions,<sup>4</sup> nothing new was added by the tens of thousands of comments submitted by rule proponents. These parties have yet to provide any evidence that broadband providers are degrading or blocking services, abusing network management tools to protect users and networks, discriminating against unaffiliated edge content or services or otherwise engaging in anti-consumer or anti-competitive behavior.<sup>5</sup> Google concedes as much: “[t]he problem is inherent in the concentrated nature and economics of the broadband market itself, rather than in a roster of actual or potential ‘bad acts.’”<sup>6</sup>

The theories advanced by proponents fare no better and are refuted by specific facts and evidence submitted by numerous commenters. For example, a commonly advanced argument is that “effective competition alone – even if it existed in the current marketplace for broadband services would not obviate the need for the proposed rules.”<sup>7</sup> The theory is that a subscriber may

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<sup>3</sup> As discussed later, on April 6, 2010, the Commission’s Comcast/BitTorrent decision was vacated by the D.C. Circuit, which held that the Commission lacked the claimed ancillary authority to regulate Comcast’s network management practices. *In re Formal Complaint of Free Press & Public Knowledge Against Comcast Corp.*, 23 FCC Red. 13028 (2008), *vacated*, *Comcast Corp. v. FCC*, No. 08-1291, slip op. (D.C. Cir. Apr. 6, 2010) (hereinafter “Comcast Decision”).

<sup>4</sup> *Id.* ¶ 16 (“We . . . strongly encourage commenters to provide relevant data and analyses in support of their positions.”).

<sup>5</sup> Proponents advance circular arguments that end up pointing back to the *Madison River* and *Comcast/BitTorrent* cases to support their claims of “market failure.” *See, e.g.*, Open Internet Coalition at 72 n.106 (asserts that the FCC has “recognized a market failure” and cites to Commission’s discussion of *Madison River* and *Comcast/BitTorrent*, neither of which involved any determination of market failure.).

<sup>6</sup> Google Comments at 27-28. *See also id.* at 8 (“In the current *de facto* environment of openness, broadband providers have continued to invest tens of billions of dollars in their networks.”); Comments of National Association of State Utility Consumer Advocates at 15 (conceding that there are no bad actions by broadband providers to support proponent concerns).

<sup>7</sup> PIC Comments at 22-24; Comments of Skype Communications S.A.R.L. at 10.

become “locked in” to a particular broadband provider due to a variety of factors including “switching costs”<sup>8</sup> and/or the desire not to break up bundled services.<sup>9</sup> Additionally, proponents argue that the broadband market presents a “terminating access market failure” which purportedly prevents a broadband customer from switching service providers once a service relationship is established.<sup>10</sup> Google asserts that, for vertically integrated broadband providers (voice, video, data content and applications), “there is a natural business incentive to undercut and diminish the growth of more diverse content, services and applications, so as to maximize private interests, to the detriment of the public interest.”<sup>11</sup> As explained below, none of these theories withstands closer scrutiny based on record evidence.

B. The Record Shows That Fierce Competition Among Broadband Providers Exists and Provides an Effective Deterrent Against Anticompetitive and Other Harmful Conduct

As a preliminary matter, it is significant that neither the Commission nor any rule proponent has established that broadband providers have market power or that there is any market failure to address.<sup>12</sup> In deregulating all broadband providers in a series of decisions

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<sup>8</sup> See, e.g., PIC Comments at 23; Google Comments at 20, Google Appendix A, *Why Imposing New Tolls on Third-Party Content and Applications Threatens Innovation and Will Not Improve Broadband Providers’ Investment* at 9-10 (hereinafter “Economides Report”).

<sup>9</sup> Economides Report at 10.

<sup>10</sup> See, e.g., Comments of Open Internet Coalition at 72 (“In effect, the access provider ‘owns’ the user once the user commits to a service.”); Comments of Vonage Holdings Corp. at 9-10.

<sup>11</sup> Google Comments at 29. See also PIC Comments at 24.

<sup>12</sup> The FTC has cautioned that “[p]olicy makers should be wary of enacting regulation solely to prevent prospective harm,” because “[i]ndustry-wide regulatory schemes—particularly those imposing general, one-size-fits-all restraints on business conduct—may well have adverse effects on consumer welfare.” Broadband Connectivity Competition Policy: A Federal Trade Commission Staff Report (June 2007), at 11, *available at* <http://www.ftc.gov/reports/broadband/v070000report.pdf>. The American Consumer Institute explains that, while the *Madison River* and *Comcast/BitTorrent* cases support conjecture, they do not constitute any determination that there is any market failure to justify “what might prove to be very costly regulation.” January 14, 2010 Comments of American Consumer Institute at 4 (hereinafter “ACI Comments”). See, e.g., Jerry Brito, Alfred E. Kahn, et al., *Net Neutrality Regulation: The Economic Evidence* ¶¶ 7-19, GN Dkt. 09-191, filed Apr. 12, 2010 (hereinafter “Economists’ Declaration”); Comments of National Cable & Telecommunications Association at 57-58 (hereinafter “NCTA Comments”); Comments of AT&T Inc. at 86-87; Comments of Comcast Corp. at 9-10; Comments of Verizon and Verizon Wireless at 1-4, 31-33, 20-30 (hereinafter “Verizon Comments”); Comments of Qwest Communications International Inc. at 8, Qwest “Factual Record Appendix” at 24-26; Comments of Time Warner Cable Inc. at 26-30 (hereinafter “TWC Comments”); Comments of SureWest Communications at 21.

between 2002 and 2007,<sup>13</sup> the Commission determined that broadband markets were developing in a competitive manner and this trend has continued.<sup>14</sup> The Department of Justice (“DOJ”) reports that, in most of the country, wired broadband service (i.e., fiber optic, cable modem, and DSL) is available today from both incumbent telephone companies and cable companies.<sup>15</sup> In addition, the deployment and adoption of 3G wireless services has exploded, with more than 90 percent of the population able to access at least 4 different service providers.<sup>16</sup> AT&T, Verizon and Qwest among others are aggressively deploying 4G service and Clearwire expects to make its 4G Wi-Max service available to about 120 million people in 80 markets this year.<sup>17</sup> The DOJ projects that, “[i]n the case of broadband services, it is clear that the market is shifting generally in the direction of faster speeds and additional mobility.”<sup>18</sup> In a dynamic technical field like broadband, the DOJ advises that the “evaluation of competition be forward-looking rather than based on static definitions of products and services.”<sup>19</sup> Given this parameter, it is of great

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<sup>13</sup> Inquiry Concerning High-Speed Access to the Internet over Cable and Other Facilities, *Declaratory Ruling and Notice of Proposed Rulemaking*, FCC 02-77, 17 FCC Rcd. 4798, 4822 ¶ 38 (2002) (hereinafter “Cable Modem Order”), *aff’d*, *NCTA v. Brand X Internet Servs.*, 545 U.S. 967 (2005) (intermediate history omitted); Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, *Report and Order and Notice of Proposed Rulemaking*, 20 FCC Rcd. 14853, 14855-56 ¶¶ 1-3 (2005) (hereinafter “Wireline Broadband Order”), *aff’d*, *Time Warner Telecom v. FCC*, 507 F.3d 205 (3d Cir. 2007); Appropriate Regulatory Treatment for Broadband Access to the Internet over Wireless Networks, *Declaratory Ruling*, FCC 07-30, 22 FCC Rcd. 5901, 5902 ¶ 2 (2007) (hereinafter “Wireless Broadband Declaratory Ruling”).

<sup>14</sup> *See, e.g.*, Charter Comments at 12-13, Comcast Comments at 14-18, n.43, AT&T Comments at 78-79, Verizon Comments at 15 n.3.

<sup>15</sup> Ex Parte Submission of the U.S. Department of Justice, at 13, GN Docket No. 09-51 (Jan. 4, 2010) (hereinafter “DOJ Ex Parte”); *see also High-Speed Services for Internet Access: Status as of December 31, 2008*, Industry Analysis and Technology Division, Wireline Competition Bureau, FCC, February 2010, at 31 (hereinafter “February 2010 FCC Broadband Report”); Robert C. Atkinson and Ivy E. Schultz, Columbia Institute for Tele-Information, *Broadband in America*, at 7-9 (2009) (hereinafter “Atkinson and Schultz Broadband Report”); Verizon Comments, Attachment C, Declaration of Michael D. Topper ¶¶ 14-15 (hereinafter “Verizon Comments - Topper Decl.”).

<sup>16</sup> *See* AT&T Comments at 146.

<sup>17</sup> Atkinson and Schultz Broadband Report at 23-24, 27. *See also* Verizon Comments at 21-24, Topper Decl. ¶¶ 92, 96-98; AT&T Comments at 145-47; Qwest Factual Record Appendix at 10-18; Comments of MetroPCS Communications, Inc. at 20-24; TWC Comments at 9-11; SureWest Comments at 21-24.

<sup>18</sup> DOJ Ex Parte at 6.

<sup>19</sup> *Id.* at 6.

significance that in the “key 18-29 year old demographic, 93 percent use mobile broadband.”<sup>20</sup>

In light of these facts, the Commission should be highly skeptical of theories premised on gatekeeper power by broadband providers.

The significant shift in market share among broadband providers over the past seven years corroborates this competition. In 2003, cable broadband had 75.2 percent market share while telco ADSL and other technologies had 24.8 percent of the market.<sup>21</sup> By the end of 2008, market shares had shifted materially with telcos and other services rising to 52.9 percent of the market while cable broadband declined to 47.1 percent.<sup>22</sup> Between 2005 and 2008, wireless broadband had grown from less than 2 percent to 18 percent of the market.<sup>23</sup> From 2009 to 2013, it is estimated that wireless broadband use will increase from 31 percent of the population aged 14 and over to 52.7 percent of that population.<sup>24</sup> Commenters report monthly churn rates among wireline broadband providers has been between 2.4 and 3.0 percent – an annual churn rate of between 28.8 and 36 percent.<sup>25</sup>

Under analogous circumstances, the D.C. Circuit recently ruled that “the Commission’s observation that cost may deter some customers from switching to DBS [from cable] is feeble indeed.”<sup>26</sup> The court further explained that:

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<sup>20</sup> Remarks of Commissioner Meredith A. Baker, at 1, State of the Net Conference (Jan. 26, 2010). Commissioner Robert M. McDowell reports that “nearly 25 percent of households are wireless only.” Keynote of Commissioner McDowell, “The Best Broadband Plan For America: First, Do No Harm,” Free State Foundation Keynote (Jan. 29, 2010) (hereinafter “McDowell Keynote”) at 6 (citing Stephen J. Blumberg, and Julian V. Luke, *Wireless Substitution: Early Release of Estimates from the National Health Interview Survey*, January-June 2009, Centers for Disease Control (released Dec. 16, 2009)).

<sup>21</sup> High-Speed Services for Internet Access: Status as of June 30, 2008, Industry Analysis and Technology Division, Wireline Competition Bureau, July 2009, Table 2.

<sup>22</sup> February 2010 FCC Broadband Report, Table 2.

<sup>23</sup> *Id.* at 7 (“At year end 2005, by contrast, . . . all other technologies [including wireless] represented 2%” of residential high-speed connections.).

<sup>24</sup> Atkinson and Schultz Broadband Report at 60.

<sup>25</sup> AT&T Comments at 3 n.5, 83, Attachment (Confidential Declaration of AT&T). *See also* Qwest Factual Record Appendix at 29.

<sup>26</sup> *Comcast Corp. v. FCC*, 579 F.3d 1, 7 (D.C. Cir. 2009).

[T]he record is replete with evidence of ever increasing competition among video providers: Satellite and fiber optic video providers have entered the market and grown in market share . . . and particularly in recent years.<sup>27</sup>

For similar reasons, the Court rejected the Commission’s determination that bundling of video with other services resulted in any material deterrence for video customers to switch to competing services.<sup>28</sup> In light of this existing and growing competition, and the actual behavior of broadband providers (as addressed below), the proponents’ speculative theories regarding broadband providers’ potential for anticompetitive behavior or conduct that conflicts with customer interests are unconvincing.<sup>29</sup>

C. Actual Marketplace Practices of Broadband Providers Contradict Speculation that Internet Openness is Threatened.

Proponents’ speculation regarding the purported incentives and abilities of broadband providers to harm consumers and limit Internet openness is disproved by the very absence of such practices today. If proponents are to be believed, broadband providers would currently be engaging in a whole range of activities against the interests of their customers and general Internet openness.<sup>30</sup> Of course, the facts show that the opposite is true, as broadband providers continue to aggressively invest in networks and technologies that enable faster, more data-

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<sup>27</sup> *Id.* at 8.

<sup>28</sup> *Id.* at 7.

<sup>29</sup> The existence of robust competition in the broadband market precludes the “terminating monopoly” concern expressed by various commenters. *See* Verizon Comments at 35-36, 123-127, Topper Decl. ¶¶ 21, 150 (“The ability and propensity for consumers to switch providers creates incentives for cable companies and telcos to offer attractive combinations of price and service and to invest in their networks to improve service offerings. In addition, in order to attract and retain subscribers, cable and telco providers must offer access to a wide variety of content and do so using network management practices that consumers accept. In contrast, a provider that implements network management techniques or limits access to content in ways that consumers do not appreciate will quickly find itself faced with high levels of customer defection. In this way, competition provides a powerful signal to broadband providers about network management practices and open access to content.”). *See also* Economists’ Declaration ¶¶ 18-19 (“[T]he NPRM’s concern about a terminating access monopoly is entirely hypothetical.”).

<sup>30</sup> Some proponents acknowledge that the activities they fear have not occurred. National Association of State Utility Consumer Advocates Comments at 15 (“. . . carriers have been on their ‘best behavior’ . . .”). *See, e.g.*, AT&T Comments at 115; Verizon Comments at 18.

intensive content, applications and services to be delivered, including over-the-top.<sup>31</sup> Technologies such as “deep packet inspection” and earlier management tools (which the Commission and proponents point to as justifying government action) have long been available in the web ecosystem and provide crucial traffic management capabilities that are largely responsible for the Internet experience so widely lauded by commenters.<sup>32</sup> The combination of fierce competitive conditions, intense public scrutiny of provider conduct, the ability of consumers and others to instantly communicate word of alleged anti-consumer behavior (using the Internet itself), and existing antitrust remedies and the FCC’s existing regime have proven extremely effective to ensure that broadband providers are not acting in anticompetitive ways, undermining an open Internet or otherwise harming consumers.<sup>33</sup> The DOJ’s January 2010 submission to the Commission acknowledges these real world constraints and recommends continued careful monitoring of the broadband market while cautioning against the enactment of new Commission regulations.<sup>34</sup>

## **II. ADOPTION OF THE PROPOSED RULES WILL BE CONTRARY TO THE GOALS OF THE NATIONAL BROADBAND PLAN BY HARMING INVESTMENT AND INNOVATION, UNDERMINING ADOPTION, EXACERBATING THE DIGITAL DIVIDE AND STUNTING JOB GROWTH**

Last month, the Commission completed over a year of work to craft the National Broadband Plan as directed by the American Recovery and Reinvestment Act of 2009

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<sup>31</sup> See, e.g., Charter Comments at 5-7, 25; Bright House Comments at 2-4; Comcast Comments at 8-9; AT&T Comments at 115; Verizon Comments at 18.

<sup>32</sup> See, e.g., AT&T Comments at 47-63; Comments of Sandvine Incorporated ¶ 42.

<sup>33</sup> See, e.g., 2007 FTC Report at 8, 11 (“Consumers – particularly online consumers – have a powerful collective voice” and existing FTC/DOJ remedies are sufficient); Comments of Computer & Communications Industry Association at 9 (“innovation and intermodal competition have exerted more force than could any desire to engage in exclusive conduct.”); Comments of Cisco Systems, Inc. at 8 (“In the increasingly competitive broadband market, a provider found to be engaging in traffic degradation, blocking, or other anticompetitive behavior would quickly lose customers to its competitors.”); NCTA Comments at 8-10; Charter Comments at 5; Verizon Comments at 33-34, 133; TWC Comments at 1-2; SureWest Comments at 24; Comcast Comments at 18-19.

<sup>34</sup> DOJ Ex Parte at 28.

("Recovery Act").<sup>35</sup> The principal objectives of the plan include the build-out and utilization of high-speed broadband infrastructure, ensuring universal access to broadband capability, eliminating the digital divide and promoting job creation and economic growth.<sup>36</sup> The Commission has estimated that it will cost up to \$350 billion to provide broadband access to all Americans and that success will require substantial private investment.<sup>37</sup> Comments filed in this proceeding establish a compelling case that each of these objectives will be undermined by the proposed rules. Given the speculative nature of the concerns underlying the proposed rules, the risk of undermining the critical objectives of the Recovery Act by adopting rules is unacceptably high.

A. The Proposed Rules Will Stifle Investment and Innovation

In its recent submission to the Commission, the DOJ warned that, although imposing regulations where there is just one or two broadband providers "may be tempting," such regulations could stifle infrastructure investments.<sup>38</sup> In addition, the DOJ explained that ". . . price regulation would be appropriate only where necessary to protect consumers from the exercise of monopoly power and where such regulation would not stifle incentives to invest in infrastructure deployment."<sup>39</sup> The DOJ recommended that the Commission elect to continue to carefully monitor areas where there are one or two broadband providers. This advice is

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<sup>35</sup> American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009).

<sup>36</sup> *Connecting America: The National Broadband Plan*, Federal Communications Commission, at 3-5, 9-15, 265-266 (hereinafter "Broadband Plan"), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-296935A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-296935A1.pdf).

<sup>37</sup> Federal Communications Commission, Commission Open Meeting Presentation on the Status of the Commission's Processes for Development of a National Broadband Plan, September 29, 2009, *available at* [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-293742A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-293742A1.pdf) (hereinafter "September 2009 Commission Meeting"); FCC Staff Presentation, *National Broadband Plan Policy Framework*, at 5 (Dec. 16, 2009), *available at* [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-295259A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-295259A1.pdf) ("Private sector investment is essential . . .").

<sup>38</sup> DOJ Ex Parte at 28.

<sup>39</sup> *Id.*

supported by the comments, as well as by numerous economists that have evaluated the broadband market.<sup>40</sup>

Many have noted that the Internet is a “two-sided” market and that broadband providers must look to either end-users or edge service providers, or both, for revenue to run existing networks and to build next generation systems.<sup>41</sup> Today, end-users pay these costs, however, this arrangement is not necessarily the most effective or fair means of financing networks.<sup>42</sup> The proposed ‘non-discrimination’ rule would ban any business model where a broadband provider is paid by a content or other edge provider, including arrangements ensuring enhanced quality of service, prioritization or other now unimagined business arrangements. In light of the rapid pace of technological change, the relatively early stage in the development of the Internet, and the interest in expanding broadband adoption, this prohibition flies directly in the face of the DOJ’s recommendation against price regulation and would be sure to foreclose the evolution of new business models and unforeseen developments that will increase consumer welfare. If the market is left to work, models will emerge that could benefit consumers in many ways including the introduction of new services, lowered costs and promotion of broadband adoption.<sup>43</sup>

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<sup>40</sup> See, e.g., Nov. 24, 2009 Comments of American Consumer Institute at 20-22, 37 (citing the FCC as recognizing that “unnecessary regulation can inhibit the global development and expansion of Internet infrastructure and services.”); Comments of National Organizations at 19-20; Comments of Wayne Brough et al. at 5 (citing Alfred E. Kahn, Prepared Remarks, Federal Trade Commission, Feb. 13, 2007, at 6); Comments of Thomas M. Lenard at 2.

<sup>41</sup> See, e.g., Comcast Comments at 13 n.37; AT&T Comments at 135-36; Verizon Comments, Attachment B, Declaration of Michael L. Katz, ¶ 68 (hereinafter “Verizon Comments – Katz Decl.”).

<sup>42</sup> See Verizon Comments – Katz Decl. ¶ 5 (Professor Katz notes the Commission’s unwarranted assumption that “a stylized and inaccurate perception of the current state of the Internet represents the best possible state for promoting consumer welfare now and in the future.”).

<sup>43</sup> See, e.g., Massachusetts Institute of Technology Professors David Clark, William Lehr, and Steve Bauer at 17 (hereinafter “MIT Professors’ Comments”) (“[T]he balance the regulator must strike in any intervention is to find rules that prevent unacceptable behavior by ISPs while giving them the business opportunities that justify continued investment. In working out this balance, we should consider what obligations, if any, should be placed on other actors.”); Economists’ Declaration ¶¶ 39-44; NCTA Comments at 13, 41; Verizon Comments at 43; Comcast Comments at 13-14, 41; Qwest Factual Record Appendix at 27-28; AT&T Comments at 135-36; SureWest Comments at 33-37.

Charter will be more able to raise capital and deploy facilities if it is able to develop new services and revenue opportunities desired by customers and third parties. Just as the Kindle increased consumer welfare through a business model where Amazon pays wireless providers for delivery of books to Kindle devices owned by consumers (edge paying core), one can imagine any number of other scenarios involving edge to core payments that benefit both consumers and the edge providers in similar ways. For example, a video game company could market a game to consumers with features for extra performance (say a “power boost” in a video war game) that are pre-authorized with the consumer’s local broadband provider. Like the Kindle, the game company could pay the provider for the added bandwidth or other QoS feature for the enhancement to work instead of having each individual consumer make the arrangement with its broadband provider. As with the Kindle business model, individual consumers could plug in the game and the enhancements purchased from the game company (but enabled by broadband) would work with their broadband system. Similarly, appliance makers might want to arrange with a broadband provider for energy monitoring features in a refrigerator or other device to activate over the broadband network without the consumer needing to make individual arrangements with local broadband providers. Like the Kindle model, the appliance maker (the edge) would pay the provider (core) so that the device works when the consumer plugs it in. This and countless other examples could be given where all parties benefit (and national priorities (e.g., energy conservation) are advanced) from business arrangements that conflict with the Commission’s flat prohibition against broadband providers receiving payments from the edge. Why would the Commission want to ban or obstruct such innovation particularly at this early stage in the Internet’s evolution?

Similarly, creating obstacles and the risk of legal entanglements each time a broadband provider seeks to experiment with or use network management techniques that allow for more efficient use of capital and network capacity will undermine such innovation, raise unit costs and lower returns on investment.<sup>44</sup> Managed services could create new sources of revenues for broadband providers and facilitate extending broadband and raising the capital necessary to build next generation networks, but uncertainty created by rules could undermine those efforts.

To the extent that the Commission prohibits or obstructs the ability of broadband providers to sell quality of service enhancements to the edge, the Commission would foreclose revenue opportunities that help attract capital to spur investment, preclude business models that spare end-users the full burden of paying for networks and undermine the ability of innovative new companies to compete with entrenched and deep pocketed edge services.<sup>45</sup> Why would the Commission want to freeze the current marketplace advantage of incumbents like Google who already have billions invested in extensive networks and strategically placed servers that give Google the competitive advantage in speed and reliability over potential rivals? The proposed

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<sup>44</sup> See, e.g., Larry F. Darby et al., American Consumer Institute, *The Internet Ecosystem: Employment Impacts of National Broadband Policy*, at 15 (Jan. 28, 2010) (hereinafter “ACI Report”) (“By eliminating [business options] from future market responses by network operators, the Commission would dramatically increase market risk, lower expected growth, and limit potential returns on the enormous investment needed to achieve our national broadband goals. . . . Restrictions implied and left open in the NPRM suggesting rate making and other elements of the return of common carrier regulation all diminish the investment case through their impact on investor risk, expected returns, and growth.”), available at [http://internetinnovation.org/files/special-reports/Jobs\\_Study\\_Final\\_.pdf](http://internetinnovation.org/files/special-reports/Jobs_Study_Final_.pdf); Economists’ Declaration ¶ 41 (“Regulations that limit . . . network management, without producing compensating benefits, would reduce economic efficiency and consumer welfare.”); Verizon Comments - Katz Decl. at 30 (“[P]ublic policies that reduce the financial returns to investment weaken private investment incentives.”); McDowell Keynote at 13-14. The D.C. Circuit’s recent Comcast Decision vacated the Commission’s claimed authority over Internet network management. See note 3 *supra*.

<sup>45</sup> See, e.g., ACI Report at 15 n.14 (“Several studies have validated the common sense conclusion that adopting the principles of two-sided market pricing would relieve Internet end users of part of the burden of covering fixed network costs and thereby permit lower rates and greater broadband penetration.”); MIT Professors’ Comments at 18 (“Because of the potential that [agreements to give content preferential delivery treatment] might be beneficial to all parties, we oppose an *ex ante* ban on such contracts.”); AT&T Comments, Ex. 3, Declaration of Marius Schwartz, at 18 (“A key point to recognize is that if broadband providers were to charge fees to content providers (and, indirectly, online advertisers), the likely result would be lower prices or other improved terms to consumers.”).

rules simply protect existing business models by government fiat picking marketplace winners and losers in the process.

For example, the Association for Competitive Technology (“ACT”) describes the difficulties experienced by the popular video streaming service Ustream in efforts to compete with Cisco.

Cisco’s technology wins out because it runs over a private Internet connection running a WAN (Wide Area Network) with QoS. Because Ustream uses the public Internet, and therefore can only offer a “best effort” solution, it will never compare to the Cisco offering. Unfortunately, the NPRM’s proposed rules governing “enhanced” services would preclude small businesses from cutting revenue sharing deals with carriers to provide any “enhanced” service that would include a guarantee of higher quality service through lower latency on a specific network, buffered content hosted by the ISP, or anti-jitter features like packet prioritization. Ustream would be left out in the cold.<sup>46</sup>

Similarly, start-up RingCentral has a superior virtual PBX application that is having difficulty in the market simply because it must rely on uneven service quality over the Internet.

Clearly, RingCentral is a small business that could benefit from an agreement with a carrier to provide “enhanced” services. Yet, the NPRM would prevent the very deal that could allow RingCentral to compete more effectively with AT&T.<sup>47</sup>

Entrepreneurs that cannot afford to construct competing facilities need other options including the ability to purchase quality of service options from broadband providers in order to compete and offer innovative new services.<sup>48</sup> Entrepreneurs will seek out such services from other

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<sup>46</sup> Comments of Association for Competitive Technology at 24-26 (hereinafter “ACT Comments”).

<sup>47</sup> *Id.* at 28-29.

<sup>48</sup> A broad spectrum of commenters recognized this concern and oppose adoption of the rules in order to protect opportunities to innovate by start-ups and new entrepreneurs that do not have deep pockets. *See, e.g.*, ACT Comments at 29 (“We refuse to believe that our customers are best served by foreclosing integration opportunities with broadband Internet service providers, allowing us to guarantee the highest quality of service when ‘best effort’ just isn’t good enough.”); Comments of CONNECT at 5; Comments of CompTIA at 12 (emphasizing that rules should “allow for a maximum of flexibility as to service and business model experimentation,” because “[w]ithout core innovation, edge innovation cannot occur.”); ACI Comments at 14 (citing DOJ comments warning that prohibiting ISPs from offering different prices to application and content providers could harm “consumer welfare and innovation.”); Comments of George Ou, Digital Society, *Preserving the Open and Competitive Bandwidth Market*, at 4 (arguing that the proposed rules would prohibit paid peering, which would “ensure Google’s dominance,” because its size provides leverage needed to negotiate free peering.); MIT Professors’ Comments at 20 (arguing that “with respect to interconnection [under agreements including CDNs,] the Internet is anything but

sources which may not have the ability to provide the same choices or pricing flexibility that broadband providers could deliver.<sup>49</sup>

Commissioner McDowell recently observed that the Commission’s proposed actions would create “extreme litigation risk” and would not create the type of environment necessary “to attract up to \$350 billion in private risk capital to build out America’s broadband infrastructure. . . .”<sup>50</sup> By unreasonably foreclosing revenue opportunities, increasing uncertainty and litigation costs, the proposed rules will stifle investment and innovation.

B. The Proposed Rules Will Undermine Broadband Adoption and Exacerbate the Digital Divide.

Charter’s service footprint is substantially rural yet it has invested heavily to deploy advanced broadband networks throughout its service areas. However, the availability of broadband service does not mean that consumers can or will adopt it and there is a close correlation between lower income levels and lower broadband adoption rates.<sup>51</sup> The comments show that by foreclosing potential revenue streams through non-discrimination rules that bar quality of service arrangements with edge services and by creating uncertainty (and potential litigation) regarding the legitimacy of network management practices and managed services, the proposed rules will depress investment and cause end-users to pay a higher portion of network

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neutral,” but “[m]uch of this is presumably efficient and so not the sort of potentially harmful discrimination that the FCC is seeking to protect against.”); Economists’ Declaration ¶ 52 (“There is strong economic evidence that the regulations would inhibit, or prohibit, efficiency enhancing conduct, thereby reducing competition, slowing innovation, deterring investment and ultimately reducing consumer welfare.”).

<sup>49</sup> Comments of the Institute for Policy Innovation at 7 (“[T]he proposed ‘non-discrimination rule’ could grant the FCC the power to control everything online from bits to business plans,” unfairly singling out network providers for discriminatory treatment while providing a distinct advantage to some of their competitors.).

<sup>50</sup> McDowell Keynote at 13. Comments of the Independent Telephone and Telecommunications Alliance at 10-11 (disincentives to invest “strike first in rural areas”).

<sup>51</sup> John B. Horrigan, *Broadband Adoption and Use in America*, FCC OBI Working Paper Series No. 1, February 2010 (“52 percent of Americans in households with annual incomes of \$50,000 or below have broadband at home, compared with 87 percent of those in households with incomes above that level.”); February 2010 FCC Broadband Report, Chart 20 at 52; Executive Office of the President, National Economic Council, *Recovery Act Investments in Broadband: Leveraging Federal Dollars to Create Jobs and Connect America*, at 9-10 (Dec. 2009) (adoption rates are low in many served areas because of lack of affordability), available at <http://www.whitehouse.gov/sites/default/files/20091217-recovery-act-investments-broadband.pdf>.

deployment costs and for the roll-out of next generation technologies. Each of these developments will have a disproportionate impact on broadband adoption by minorities and will exacerbate the digital divide contrary to the specific directive of Congress in the Recovery Act and the objectives of the National Broadband Plan.

These concerns are reflected broadly in the record, particularly by minority interests. For example, the National Organizations believe the proposed rules “could increase the price of broadband for minorities, reduce broadband adoption, deter the investments necessary to fully bridge the digital divide, limit job growth and economic opportunity and harm the interests of minorities in other significant ways.”<sup>52</sup> The Ministerial Alliance Against the Digital Divide echoes these comments observing that there is no evidence that a problem exists and “strongly discourages the FCC from setting any rules that would upset this progress [for African Americans] toward achieving 100% broadband access and the elimination of the digital divide.”<sup>53</sup> The National Black Chamber of Commerce urges the Commission not to adopt the rules which could negatively impact access to broadband by minority-owned businesses.<sup>54</sup> Thousands of other commenters including minority organizations (civic, educational and religious), minority state representatives and other government officials oppose the rules based on these concerns.<sup>55</sup>

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<sup>52</sup> National Organizations Comments at iii. The National Organizations are a coalition of sixteen minority organizations, including the Black College Communications Association, Hispanic Institute, Labor Council for Latin American Advancement, MANA, A National Latina Organization, National Conference of Black Mayors, and the United States Hispanic Chamber of Commerce, among others.

<sup>53</sup> The Ministerial Alliance of Against the Digital Divide is a 25,000 member civil rights organization focused on bridging the digital divide and “promoting personal and economic development in low income and minority communities across the country.” Two hundred fifty-five clergy representing over 100,000 parishioners signed the comments.

<sup>54</sup> Comments of National Black Chamber of Commerce at 1.

<sup>55</sup> *See, e.g.*, Comments of Mexican American Opportunity Foundation at 1; Comments of 100 Black Men of Orlando, Inc. at 1; Comments of Denver Hispanic Chamber of Commerce at 1; Comments of NAACP – Nashville Branch at 1; Comments of Los Angeles Urban League at 1; Comments of Beverly Daniel Tatum, Ph.D., for Spelman College at 1; Comments of World Institute on Disability at 1; Comments of Marion County NAACP at 1-2; Comments of Black Economic Council at 1; Comments of Hispanic Chamber of Commerce Silicon Valley at 1;

Prominent economists agree with these concerns and forecast serious unintended consequences that will undermine the objectives of the National Broadband Plan if the Commission forges ahead with the rules. For example, former FCC Chief Economist Michael L. Katz explains:

Absent a prohibition by the Commission, two-sided pricing could play an important role in promoting the widespread adoption of broadband services. Specifically, network operators might use revenue from arrangements with online service or application providers to subsidize the costs of consumer access, which would increase adoption. A network operator could even adopt a business model similar to advertiser-supported over-the-air television broadcasting whereby consumers would receive access for free. Or, a network operator could use the revenues from differentiated arrangements with online service or application providers to offer discounted rates to consumers. Given the widespread recognition that cost can be an obstacle to consumer adoption of broadband, an application-provider-supported broadband service model could be an important component of an overall approach to increasing broadband penetration.<sup>56</sup>

Similarly, Technology Policy Institute President Thomas Lenard notes that “[t]here is nothing in the economics literature that suggests, as a general rule, a zero price on one side of a two-sided market is economically efficient or good for consumers.”<sup>57</sup> Lenard emphasizes that “[u]nder different circumstances the efficient price broadband providers charge to CAS providers could be zero, positive, or negative...,” and that a rule mandating a zero price for edge services to access the Internet could in fact shift infrastructure costs to end users, thereby hindering adoption by price-sensitive consumers.<sup>58</sup>

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Comments of Nevada Women’s Fund at 2; Comments of Latinos in Information Sciences and Technology Association at 2; Comments of American Council of the Blind at 2; Comments of Inter-Tribal Council of Arizona at 1; Comments of Illinois Hispanic Chamber of Commerce at 1; Comments of Hmong American Friendship Association, Inc. at 1; Comments of White Mountain Apache Tribe at 1; Comments of Urban League of Metropolitan Seattle at 1; Comments of Vicky Matyas-Smith, SW Conference of Mayors at 1; Comments of Village of Maywood, Illinois at 1; Comments of Florida State Senator Christopher L. Smith at 1-2; Comments of Alabama State Representative Alan Harper at 1; Comments of Nevada Assemblywoman Debbie Smith at 1-2; Comments of Tennessee State Senator Reginald Tate at 1.

<sup>56</sup> Verizon Comments - Katz Decl. ¶ 68.

<sup>57</sup> Comments of Thomas M. Lenard at 6.

<sup>58</sup> *Id.*; Comments of Robert J. Shapiro and Kevin A. Hassett at 12 (“[A]nalysis shows that if ISPs are forced by rule or regulation to pass along [infrastructure investment] costs only to Internet end-users, and on an equal basis, it would significantly impede future progress towards universal broadband access.”). *See also* Economists’

Given the significant risk that the nation’s goal to eliminate the digital divide will be undermined by the new rules, the National Organizations observe that “[t]he burden is on the proponents of any proposed new regulations to show, at a minimum, that the rules will not harm minorities.”<sup>59</sup>

C. The Proposed Rules Will Hurt Job Growth.

The National Economic Council explains how broadband investments funded by the Recovery Act will create tens of thousands of domestic jobs in designing, engineering and building broadband projects.<sup>60</sup> In addition, broadband network projects create many jobs indirectly through demand for new network and construction equipment. Looking beyond the immediate economic benefits from Recovery Act broadband projects, numerous commenters recognize that broadband providers reinvest a higher percentage of their revenues into capital projects and network expansion and that more, better paying domestic jobs are generated by broadband providers than by edge service providers. Consequently, to the extent that the

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Declaration ¶ 38 (“To the extent the [non-discrimination] rule prohibits broadband ISPs from levying positive fees on upstream customers such as content providers, the upshot would be to raise prices to downstream subscribers and ultimately reduce broadband adoption – precisely the opposite of what the Commission is seeking to accomplish through its National Broadband Plan.”); Brough et al. Comments at 5 (“If net neutrality regulation sets current revenue models into place forever, it will force broadband service providers to recover more of the cost of upgrading and maintaining the Internet from consumers.”); Comments of Joseph P. Fuhr, Jr. at 2 (“Imposing rules that prevent voluntarily negotiated multi-sided prices will never achieve optimal market results, and can only lead to a reduction in consumer welfare.”); Comments of The Free State Foundation at 10-11 (noting that the Notice itself acknowledges that the Internet is a “two-sided market,” and that “economic analyses suggests that price discrimination may be more beneficial in a two-sided market than in the standard one-sided market.”).

<sup>59</sup> The National Organizations explain that “...before adopting any net neutrality rules, the Commission should undertake a detailed, granular, and objective analysis and ensure that each and every net neutrality rule is supported by documentation showing that the rule – standing alone or in conjunction with other rules – will not depress adoption, increase the price of broadband, reduce employment levels or otherwise harm minority consumers or minority-owned businesses.” National Organizations Comments at 26. As recommended unanimously by the Advisory Committee on Diversity for Communications in the Digital Age, “the Commission should analyze in detail the anticipated effects of rule or policy changes on the digital divide, and craft any new rules and policies in a manner that ensures, to the extent possible, that these rules and policies will be instrumental in closing the digital divide.” Dec. 15, 2009 Diversity Committee Recommendation at 1, *available at* <http://www.fcc.gov/DiversityFAC/adopted-recommendations/letter-to-genachowski-121509.pdf>.

<sup>60</sup> Executive Office of the President, National Economic Council, *Recovery Act Investment in Broadband: Leveraging Federal Dollars to Create Jobs and Connect America*, at 11, *available at* <http://www.whitehouse.gov/sites/default/files/20091217-recovery-act-investments-broadband.pdf>.

Commission adopts policies that artificially redirect revenues from the core to the edge (by prohibiting multi-sided pricing, for example) it will come “at a cost of job losses to the overall economy.”<sup>61</sup>

The American Consumer Institute Center for Citizen Research (“ACI”) reports that “[f]irms in the applications space tend to *earn more, invest less, and create fewer jobs* than most firms providing the broadband network platforms they use” and that the overall impact of adopting the Commission’s proposed rules could cost the economy 30,000 jobs.<sup>62</sup> In comparing how cash flow is used by core and edge companies, and how many jobs each sector creates respectively from each billion dollars in cash flow generated, ACI found that network companies reinvest 64% of cash flow into the network as capital expenditures.<sup>63</sup> By contrast, non-network companies reinvested only 28% into capital expenditures. Given this disparity it is not surprising that, for every billion dollars in cash flow, the network companies created 2,329 jobs, while edge companies created just 1,199.<sup>64</sup> As ACI notes, these network core jobs tend to be “high-paying jobs, paying at twice the rate of other nonfarm jobs, and they can be green jobs.”<sup>65</sup>

These findings are supported by commenters, particularly those expected to be most affected by improved or continued harsh employment prospects. The Communications Workers of America observe that “[s]imply put, broadband network providers create and maintain far more, and typically better-paying, jobs than the applications and content sectors.”<sup>66</sup> The

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<sup>61</sup> ACI Report at 25.

<sup>62</sup> *Id.* at 10, 25-26 (emphasis added).

<sup>63</sup> *Id.* at 24.

<sup>64</sup> *Id.*

<sup>65</sup> *Id.* at 23 (internal citation omitted).

<sup>66</sup> Comments of Communications Workers of America at 6-7 (hereinafter “CWA Comments”) (“The NPRM’s example . . . of the purported 600,000 Americans ‘that earn part of their living by operating on eBay’s auction platform’ does not translate into the numbers and/or types of well-paying jobs that are needed to strengthen our weak economy and to ensure that America is competitive globally.”). The Digital Society estimates that existing employment by broadband providers weighing in against new rules is approximately 1.4 million compared to about

National Organizations confirms that investment in network infrastructure leads to more and better paying jobs.<sup>67</sup> Moreover, Commission policies that promote broadband adoption by those already passed by existing broadband networks (by lowering end user broadband costs or providing adoption subsidies to low income populations, for example) can deliver more jobs for less of an investment than even broadband deployment strategies. For example, studies show that adoption of broadband by those that already have the service available to them (as opposed to spending billions of dollars over many years to extend service to unserved, low density areas) would have a more immediate economic impact at a significantly lower cost for each job created.<sup>68</sup>

Adoption of the proposed rules will artificially diminish revenue opportunities for broadband providers leading to lower capital investment in broadband networks, lower adoption rates and fewer good high-paying domestic jobs for Americans.

### **III. THE COMMISSION DOES NOT HAVE THE LEGAL AUTHORITY TO IMPOSE THE PROPOSED RULES**

The Notice contends that the Commission has ancillary jurisdiction to adopt the proposed rules with regard to cable and other broadband providers. The comments and the recent Comcast Decision refute the existence of such ancillary authority as a basis for the proposed rules. Moreover, in light of the record that the Internet is thriving under current Commission policies, the Commission should not use the Comcast Decision as a pretext to reclassify broadband services to Title II. Such a radical step is not only unnecessary to preserve a free and open

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149,000 now employed by net neutrality advocates in this proceeding. See Bret Swanson, *The White House-FCC Jobs Clash*, Huffington Post, Feb. 25, 2010.

<sup>67</sup> National Organizations Comments at 21-22, n.80.

<sup>68</sup> See Letter from Michael Lovett, Executive Vice President and Chief Operating Officer, Charter Communications, Inc. to Chairman Julius Genachowski at 3-6 (Feb. 24, 2010) (filed in GN Dockets 09-51, 09-47, 09-137, WC Dockets 09-154, 05-337, RM-11584; GN Docket 09-919; WC Docket 07-52) (adoption of available broadband service immediately creates good jobs in installation and customer care. These newly employed people purchase goods and services thereby further stimulating the local economy. It is further estimated that the “network effect” results in a 0.2 – 0.3% increase in overall non-farm employment for every 1% increase in broadband penetration.”).

Internet, but would undermine the goals of the National Broadband Plan and be arbitrary and capricious based on past Commission decisions and the record in this proceeding. The record also demonstrates that adoption of the rules would violate the First and Fifth Amendments.

A. The Commission Does Not Have Ancillary Jurisdiction To Impose the Rules on Broadband Providers.

The Commission recognizes that it does not have specific statutory authority to impose the proposed rules so it relies upon ancillary authority.<sup>69</sup> Although the Commission has general subject matter jurisdiction over broadband services,<sup>70</sup> this is insufficient on its own to establish ancillary authority to impose the rules. As many commenters observed, and as the D.C. Circuit recently reaffirmed, to impose regulations under ancillary authority, the subject of the regulations must be within the Commission’s general subject matter authority, *and* the regulations must be “reasonably ancillary to the Commission’s effective performance of its statutorily mandated responsibilities.”<sup>71</sup> In its Comcast Decision, the D.C. Circuit vacated the *Comcast/BitTorrent* decision, holding that the Commission had no authority to regulate Comcast’s network management practices.<sup>72</sup> The court specifically ruled that the Commission’s reliance on, *inter alia*, Sections 1, 230(b), and 706 of the Communications Act did not provide the necessary statutorily mandated responsibilities upon which to anchor ancillary authority over Comcast’s network management practices.<sup>73</sup> This decision upsets the underpinnings of the Commission’s

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<sup>69</sup> Notice ¶¶ 83-86.

<sup>70</sup> Section 1 of the Communications Act provides the Commission with general jurisdiction over “interstate or foreign commerce in communications by wire or radio.” 47 U.S.C. § 151.

<sup>71</sup> Comcast Decision at 3. *See, e.g.*, Comments of Barbara S. Esbin at 36; Comments of American Center for Law and Justice at 3; Comments of Electronic Frontier Foundation at 7; Comcast Comments at 24. *See also American Library Ass’n v. FCC*, 406 F.3d 689, 700 (D.C. Cir. 2005).

<sup>72</sup> Comcast Decision at 3.

<sup>73</sup> The Court held that Sections 1 and 230(b) are policy statements that do not serve as “delegations of regulatory authority” and that the Commission “cites neither section 230(b) nor section 1 to shed light on any express statutory delegation of authority found in Title II, III, VI, or, for that matter, anywhere else.” *Id.* at 22-23. With regard to Section 706, the Court noted that the Commission had previously held that the provision does not constitute an

legal authority to impose the proposed rules in this proceeding. In the Notice, rather than identifying any statutory provision that provides the necessary “statutory mandated responsibilities” upon which ancillary authority must rest, the Commission again relies upon the general Internet and broadband policy goals in Sections 230(b) and 706 of the Act that the D.C. Circuit rejected.

B. Adoption of Net Neutrality Rules Would Be Arbitrary and Capricious

The proposed rules are premised on alleged conditions occurring in the marketplace that are undermining the open nature of the Internet and alternatively, that even if there is no such abusive behavior occurring, broadband providers will take actions that will harm the Internet.<sup>74</sup> As explained above, the proponents of the rules have failed to demonstrate that these conditions actually exist. In fact, with the existing and growing competition among broadband providers, both wireline and wireless, the Internet is thriving under the Commission’s current regulatory regime and continues to evolve dynamically in unpredictable ways that enhance consumer choices and welfare.

Under the Administrative Procedure Act, an agency ruling will be set aside as arbitrary and capricious if the agency fails to examine the relevant data and to “articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made.”<sup>75</sup> Where an agency is relying on both a theoretical threat and a claimed record of abuse, the agency action will be set aside if the record does not support that there is a record of abuse.

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“independent grant of forbearance authority or of authority to employ other regulating methods” and was bound by this conclusion. *Id.* at 31.

<sup>74</sup> Notice ¶¶ 67-69.

<sup>75</sup> *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (internal quotation omitted).

FERC staked its rationale in part on a record of abuse, but that record is non-existent. Professing that an order ameliorates a real industry problem but then citing no evidence demonstrating that there is in fact an industry problem is not reasoned decisionmaking.<sup>76</sup>

Courts have also explained that one or two isolated instances, as the Commission relies on here (e.g., *Madison River* and *Comcast/BitTorrent*), do not justify broad prophylactic rules, particularly where the incidents were handled sufficiently under current rules.<sup>77</sup> Where an agency justified the absence of specific instances of abuse by asserting that such absence “does not mean they have not occurred,” the court rejected the justification stating “[t]he [APA] does not tolerate that kind of truism as the basis for the administrative action here.”<sup>78</sup>

Courts will also find agency action arbitrary and capricious if the agency action is disproportionate to remedy the isolated problems that have been identified.<sup>79</sup> Here, the Commission proposes to impose industry-wide rules on a thriving industry based on two isolated instances of behavior that were promptly and effectively resolved under the current Commission regulatory regime. The imposition of such a disproportionate and unnecessary remedy that will disrupt the delicate balance of the hugely successful Internet ecosystem is arbitrary and capricious. As the Supreme Court observed:

Expert discretion is the lifeblood of the administrative process, but ‘unless we make the requirements of administrative action strict and demanding, expertise, the strength of modern government, can become a monster which rules with no practical limits on its discretion.’<sup>80</sup>

In light of the recent Comcast Decision, proponents have increased calls for the Commission to reclassify broadband providers under Title II in an effort to create a direct source

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<sup>76</sup> *National Fuel Gas Supply Corp. v. FERC*, 468 F.3d 831, 843 (D.C. Cir. 2006).

<sup>77</sup> *Fox Television Stations, Inc. v. FCC*, 280 F.3d 1027, 1051 (D.C. Cir. 2002) (“A single incident since the must-carry rules were promulgated—and one that seems to have been dealt with adequately under those rules—is just not enough to suggest an otherwise significant problem.”).

<sup>78</sup> *National Fuel Gas Supply Corp.*, 468 F.3d at 844.

<sup>79</sup> See, e.g., *Associated Gas Distributors v. FERC*, 824 F.2d 981, 1019 (D.C. Cir. 1987) (rejecting an “industry-wide solution” for isolated problems).

<sup>80</sup> *State Farm*, 463 U.S. at 48 (citing *New York v. United States*, 342 U.S. 882, 884 (1951)).

of statutory authority for the proposed rules.<sup>81</sup> The Commission should reject such radical proposals because the record shows that such action is not necessary to preserve a free and open Internet, but would instead undermine the goals of the National Broadband Plan and harm consumer welfare.

Moreover, the Commission classified cable Internet access as an information service based on an extensive record justifying the classification that was upheld by the Supreme Court in 2005.<sup>82</sup> The Supreme Court agreed with the Commission based on this record that cable broadband satisfied the statutory definition of information service because the service is comprised of a “functionally integrated” offering (that includes a telecommunications component) but does not constitute a “telecommunications service” under the Communications Act.<sup>83</sup> The Commission’s deregulation of cable modem service was followed by subsequent decisions (as recent as 2007) classifying wireline broadband and then wireless broadband as Title I information services again based on extensive records establishing that an end user subscribing to each service “expects to receive (and pay for) a finished, functionally integrated service that provides access to the Internet, rather than receive (and pay for) two distinct services – Internet access service and a distinct transmission service.”<sup>84</sup> None of the factual foundations for these decisions have changed since the Commission last addressed the issues in 2007.<sup>85</sup>

In addition, in classifying broadband under Title I, the Commission acknowledged the quickly evolving and developing competitive market for broadband services and the lack of any

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<sup>81</sup> See, e.g., Google Comments at 43 n.132; Free Press Comments at 31-32; PIC Comments at 15-16.

<sup>82</sup> Cable Modem Order, 17 FCC Rcd. 4798 (2002), *aff’d*, *NCTA v. Brand X*, 545 U.S. 967 (2005).

<sup>83</sup> *NCTA v. Brand X*, 545 U.S. at 991.

<sup>84</sup> Wireline Broadband Declaratory Ruling, 22 FCC Rcd. 5901, ¶ 31; Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, *Report and Order and Notice of Proposed Rulemaking*, FCC 05-150, 20 FCC Rcd. 14853, 14862-65 ¶¶ 12-17 (2005) (hereinafter “Wireline Broadband Order”).

<sup>85</sup> See Letter to Chairman Genachowski from NCTA, CTIA, USTA, TIA, ITTA, Verizon, AT&T, Time Warner Cable and Qwest at 7-10 (Feb. 22, 2010) (hereinafter “Association/Broadband Provider Letter”).

demonstrated market failure.<sup>86</sup> As the Commission explained in its Wireline Broadband decision:

[T]he record before us demonstrates that the broadband Internet access market today is characterized by several emerging platforms and providers, both intermodal and intramodal, in most areas of the country. We are confident that the regulatory regime we adopt in this Order will promote the availability of competitive broadband Internet access services to consumers, via multiple platforms, while ensuring adequate incentives are in place to encourage the deployment and innovation of broadband platforms consistent with our obligations and mandates under the Act.<sup>87</sup>

Since these decisions, the broadband marketplace has only become more competitive and the Commission's predictions have been resoundingly accurate.

In light of the Commission's previous decisions classifying broadband Internet access as an information service (based upon the functionally integrated manner in which the service works and is offered to end users), the lack of any factual change in how Internet access service now functions and the substantial evidence of increasing broadband competition over multiple platforms as the Commission anticipated, it would be arbitrary and capricious for the Commission to abruptly determine that Title II is now justified.<sup>88</sup> As explained in the Association/Broadband Provider Letter, "[w]hile the Commission is certainly free to make

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<sup>86</sup> See, e.g., Wireline Broadband Order, 20 FCC Rcd. at 14877-78 ¶ 44; Wireline Broadband Declaratory Ruling, 22 FCC Rcd. 5901. See also United Power Line Council's Petition for Declaratory Ruling Regarding the Classification of Broadband over Power Line Internet Access Service as an Information Service, *Memorandum Opinion and Order*, FCC 06-165, 21 FCC Rcd. 13281 (2006).

<sup>87</sup> Wireline Broadband Order, 20 FCC Rcd. at 14856 ¶ 3, 14897-98 ¶¶ 84 n.253, 85 (the Commission acknowledged that cable's higher share of the broadband access market made it "highly unlikely that wireline broadband Internet access service providers would be found to be dominant" and found that "the public interest is best served if we permit competitive marketplace conditions to guide the evolution of broadband Internet access service").

<sup>88</sup> See *FCC v. Fox Television Stations, Inc.*, 129 S. Ct. 1800, 1811 (2009) (to reverse a prior action may require "a more detailed justification than what would suffice for a new policy created on a blank slate . . . [where the] new policy rests upon factual findings that contradict those which underlay those which underlay its prior policy.").

reasoned changes in policy to the extent the governing statute allows, it is *not* free to ignore facts in order to shoehorn its policy preferences into the existing legal framework.”<sup>89</sup>

C. The Proposed Rules Conflict with the First and Fifth Amendments.

1. *First Amendment Constraints.*

Charter’s comments showed that broadband providers have protected First Amendment rights which the proposed rules would violate in numerous ways including mandated carriage of all content, applications and services, eliminating editorial discretion, potentially foreclosing speech through managed or specialized services and restricting network management practices that would increase broadband provider costs by compelling otherwise unnecessary network upgrades.<sup>90</sup> The comments also demonstrated that the proposed rules fail to meet even the First Amendment’s intermediate scrutiny test because they do not further a “substantial or important governmental interest” and are not narrowly tailored to promote the government’s stated interests.<sup>91</sup> This conclusion has been emphatically confirmed by the absence of any supporting evidence of “significant market failure or demonstrated consumer harm” despite the tens of thousands of comments submitted by rule proponents.<sup>92</sup> Moreover, the imposition of speech restrictions on broadband service providers but not on edge service providers that impose far

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<sup>89</sup> Association/Broadband Provider Letter, at 9-10 (“Indeed, in the absence of any new statutory directive from Congress, the Commission could have no plausible basis for reversing its conclusive analysis of Congressional intent regarding the Title I classification of Internet access service.”).

<sup>90</sup> Charter Comments at 25-26. *See also* TWC Comments at 44-50; Comcast Comments at 29 n.99; AT&T Comments at 235-37; Verizon Comments at 111-19; Qwest Comments at 51-54, 67-71.

<sup>91</sup> To the extent that the rules compel service providers to transmit specific content, the rules are subject to strict scrutiny and must be narrowly tailored to further a compelling government interest. As explained by Commissioner McDowell, “[o]ne could easily argue that strict scrutiny, the most exacting standard, should apply to net neutrality regulations because the regime would regulate speech exchanged on a privately managed broadband network.” McDowell Keynote at 16 (*citing Turner Broad. Sys., Inc. v FCC*, 512 U.S. 622 (1994).)

<sup>92</sup> Charter Comments at 27. As observed by Thomas Lenard, the Notice uses the word “may” 199 times when discussing potential threats to the Internet. Lenard Comments at 4. *See also United States v. Playboy Entm’t Group, Inc.*, 529 U.S. 803, 822 (2000) (where first amendment rights are at stake, “the Government must present more than anecdote and supposition”).

more intrusive effects on an open Internet would result in unlawful distinction and discrimination among speakers.<sup>93</sup>

## 2. *Fifth Amendment Constraints.*

Net neutrality rules that would require broadband providers to transport all content, applications and services of edge providers, would constitute a physical taking of property without compensation and violate the Fifth Amendment rights of providers. As noted by one commenter, such a requirement would amount to a “permanent easement on the network – a form of physical occupation” without compensation.<sup>94</sup> In addition, the proposed rules would constitute a regulatory taking by imposing a significant economic impact on Charter by depriving it of the opportunity to fully capitalize on its broadband network investment. The proposed regulations would prevent Charter from entering two-sided business models, quality of service and prioritization services and managed services that would be permissible absent the proposed regulations thereby limiting revenues and undermining Charter’s legitimate investment-backed expectations.<sup>95</sup>

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<sup>93</sup> *National Fed’n of the Blind v. FTC*, 420 F.3d 331, 345 (4th Cir. 2005) (regulation of speech “can violate the First Amendment by restricting too little speech, as well as too much.”) (citing *City of Cincinnati v. Discovery Network, Inc.*, 507 U.S. 410 (1993)); see also *Playboy Entm’t Group*, 529 U.S. at 812 (“Laws designed or intended to suppress or restrict the expression of specific speakers contradict basic First Amendment principles. . . . It is of no moment that the statute does not impose a complete prohibition. The distinction between laws burdening and laws banning speech is but a matter of degree. [All] content-based burdens must satisfy the same rigorous scrutiny as its content-based bans.”).

<sup>94</sup> Verizon Comments at 119. See also *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 433 (1982) (“This is not a case in which the Government is exercising its regulatory power in a manner that will cause an insubstantial devaluation of petitioner’s private property; rather, the imposition of the . . . servitude in this context will result in an *actual physical invasion* of the privately owned [property]. . . . And even if the Government physically invades only an easement in property, it must nonetheless pay compensation.”) (quoting *Kaiser Aetna v. United States*, 444 U.S. 164 (1979)).

<sup>95</sup> See *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104 (1978) (“The economic impact of the regulation on the claimant and, particularly, the extent to which the regulation has interfered with distinct investment-backed expectations are, of course, relevant considerations.”). As noted by Verizon, the proposed rules would “represent an abrupt about-face, potentially forcing the owners of broadband networks to accept a permanent physical occupation of their facilities on terms the government sets or limiting their ability to offer differentiated services over their property. As a result, they would frustrate broadband providers’ substantial and reasonable investment-backed expectations, shift the economic opportunity inherent in their networks to third parties, and involve government

**IV. IF THE COMMISSION PROCEEDS TO ADOPT RULES, THEY SHOULD BE APPLIED TO SIMILARLY SITUATED PARTIES THROUGHOUT THE INTERNET ECOSYSTEM AND BE REVISED TO MINIMIZE HARM**

A. Any Net Neutrality Rules Must Apply to All in the Internet Ecosystem.

The Notice inquires whether net neutrality rules should be applied more broadly than to just broadband access providers, including other entities such as content, applications and services providers.<sup>96</sup> The Notice is skeptical about broadening the rules, noting that Internet openness has “traditionally focused on providers of broadband Internet access service.” However, an agency action is arbitrary and capricious where it “applies different standards to similarly situated entities and fails to support this disparate treatment with a reasoned explanation and substantial evidence in the record....”<sup>97</sup>

The record provides overwhelming evidence of actual behavior by edge providers that effectively blocks content, interferes with the ability of small businesses to get started and compete equally with entrenched interests and degrades access to information, including ideas that edge gatekeepers are not paid to promote, that they disfavor or otherwise deem unworthy for distribution.<sup>98</sup> It is now well documented that Google (with its national search market share of 65.4 percent)<sup>99</sup> actively undermines the Commission’s openness principles. For example,

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action that takes the character of a compelled physical invasion. Verizon Comments at 120-21 (internal citations omitted).

<sup>96</sup> Notice ¶ 101.

<sup>97</sup> *AT&T v. FCC*, 86 F.3d 242, 247 (D.C. Cir. 1996); *Burlington N. & Santa Fe Ry. Co. v. Surface Transp. Bd.*, 403 F.3d 771, 777 (D.C. Cir. 2005).

<sup>98</sup> See, e.g., ACT Comments at 11; CWA Comments at 11-13; Comments of Foundem at 3-8; NCTA Comments at 45-49; Bright House Comments at 10; Comcast Comments at 33-36; TWC Comments at 38-40; CenturyLink Comments at 23-24; AT&T Comments at 196-207; Verizon Comments at 36-40; Qwest Comments at 8-11; SureWest Comments at 37-40.

<sup>99</sup> *comScore Releases January 2010 U.S. Search Engine Rankings*, comScore, Inc., Feb. 11, 2010, available at [http://www.comscore.com/Press\\_Events/Press\\_Releases/2010/2/comScore\\_Releases\\_January\\_2010\\_U.S.\\_Search\\_Engine\\_Rankings](http://www.comscore.com/Press_Events/Press_Releases/2010/2/comScore_Releases_January_2010_U.S._Search_Engine_Rankings). Google’s dominance is even more pronounced in Europe, where Google’s share of the online search and advertising market exceeds 90 percent, and the European Commission and French regulators are currently investigating Google for possible anti-competitive conduct. Issue Statement, *ICOMP Welcomes Yahoo!/Microsoft Agreement While Expressing Continued Concern over State of Competition in Online Markets*,

through closely held algorithms governing its search results, Google controls the success or failure of enterprises by dictating where a Google-powered search result places their website in search listings or whether the enterprise's website is listed at all.<sup>100</sup> Through its 2007 universal search initiative, "Google now favors its own price-comparison results for product queries, its own map results for geographic queries, its own news results for topical queries, and its own YouTube results for video queries."<sup>101</sup> Until Google began to preferentially list Google Maps on its site, the market leader for maps had long been MapQuest. However, MapQuest quickly fell out of favor with Google's changed policy.<sup>102</sup>

Google's manipulation of search results to favor its affiliates, paying customers<sup>103</sup> and political agenda,<sup>104</sup> is far more of a threat to Internet openness and continued innovation than any

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Initiative for a Competitive Online Marketplace, Feb. 19, 2010, *available at* <http://www.i-comp.org/~icompps/pdfs/ICOMPstatementMY.pdf>.

<sup>100</sup> Thomas Catan and Jessica E. Vascellaro, *Google, Microsoft Spar on Antitrust*, Wall St. J., Mar. 1, 2010, at A1 (reporting that "small antitrust plaintiffs . . . accuse Google of such tactics as lowering its 'quality score' of their sites, with the result that their ads cost more or appear less prominently in searches."), *available at* <http://online.wsj.com/article/SB10001424052748703510204575086534063777758.html>. TradeComet.com CEO Dan Savage reports that "Google destroyed [TradeComet.com], virtually overnight," because it threatened Google's dominance in search advertising. "Google imposed a penalty on my site through the application of its opaque 'quality score,' notwithstanding that I had previously been Google's site-of-the-week," a move that "decimated search traffic" to TradeComet.com. Dan Savage, *Google, Microsoft, and My Lawsuit*, Wall St. J., Letters, Mar. 10, 2010, *available at* <http://online.wsj.com/article/SB10001424052748704187204575102343225563532.html>. See also Jia Lynn Yang & Nina Easton, *Obama & Google (a Love Story)*, Fortune, Oct. 26, 2009, *available at* [http://money.cnn.com/2009/10/21/technology/obama\\_google.fortune/](http://money.cnn.com/2009/10/21/technology/obama_google.fortune/) ("If Google delivers a search result in the top position, we click on it. If it's buried, the site might as well not exist.").

<sup>101</sup> Adam Raff, *Search, But You May Not Find*, N.Y. Times, Op-Ed, Dec. 28, 2009, at A27, *available at* <http://www.nytimes.com/2009/12/28/opinion/28raff.html?scp=2&sq=google%20&st=cse>; Foundem Comments at 2-9.

<sup>102</sup> See Foundem Comments at 4. Ironically, Google, a chief advocate for applying nondiscrimination rules to wireline and wireless networks, "blocks calls that Google Voice customers make to telephone numbers associated with [certain] local exchange carriers. This intellectual contradiction . . . highlights the fallacy of any approach to Internet regulation that focuses myopically on network providers, but not application, service, and content providers." Letter from Robert W. Quinn, Jr., Senior Vice President, Federal Regulatory, AT&T, to Sharon Gillett, Chief, Wireline Competition Bureau, FCC, WC Docket No. 07-52, at 2-3 (Sept. 25, 2009).

<sup>103</sup> See Miguel Helft, *These Battle Lines Are Drawn in Yellow*, N.Y. Times, Feb. 13, 2010, *available at* <http://www.nytimes.com/2010/02/14/business/14ping.html>.

<sup>104</sup> The Notice specifically explains that the "singling out of any particular content (i.e., viewpoint) for blocking or deprioritization" will be deemed unreasonable unless harmful to the network. Notice ¶ 137. Google's documented actions clearly cross this line as well. See, e.g., Digital Straight Talk, *'Fiery Missives' and Other Emotional Tactics Driving Net Neutrality Debate*, June 14, 2006, *available at* <http://theredactor.blogspot.com>; Robert Cox, *Google bans anti-MoveOn.org ads*, Examiner.com, Oct. 11, 2007, [http://www.examiner.com/a-983100-Google\\_bans\\_anti-](http://www.examiner.com/a-983100-Google_bans_anti-)

impact of broadband service providers. The National Organizations, representing minority groups with intense concerns over the fate of small minority businesses, explains that “a specific practice by search engine providers may inure to the great detriment of small businesses that lack access to capital [an issue particularly relevant to] minority small businesses.”<sup>105</sup> Other commenters agree that any rules the Commission adopts should not be limited to broadband access providers.<sup>106</sup>

As the services traditionally offered by the edge and the core continue to evolve, there will be more blurring of the lines between the two that will make rules focused on one area or the other increasingly difficult to apply and litigation more likely.<sup>107</sup> Consequently, if the Commission decides to adopt rules, which Charter urges it not to do in light of the record, then they should be applied equally to the edge to ensure that Internet ecosystem entities that are *actually engaged* in the type of exclusionary and non-neutral behavior the Commission is concerned about are covered.

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[MoveOn.org\\_ads.html](#); Michael Y. Park, *Journalist Who Exposes U.N. Corruption Disappears From Google*, Fox News, Feb. 18, 2008, <http://www.foxnews.com/story/0,2933,331106,00.html>.

<sup>105</sup> National Organizations Comments at 31-32. See also Frank Pasquale, *Internet Nondiscrimination Principles for Competition Policy Online*, Testimony before the Task Force on Competition Policy & Antitrust Laws of the House Comm. on the Judiciary, at 3 (July 15, 2008), <http://judiciary.house.gov/hearings/pdf/Pasquale080715.pdf>. (“Centralized control or manipulation by search engines may stifle innovation by firms relegated to obscurity. . . . Entrenched and well-established entities are more likely to have the resources necessary to induce search engines to manipulate results, and thus preserve their market dominance.”).

<sup>106</sup> See, e.g., CWA Comments at 11-13 (“While the question of Internet openness at the Commission has traditionally focused on providers of broadband Internet access as Internet gatekeepers, other players in the ever-evolving Internet ecosystem increasingly have the ability to become Internet gatekeepers as well.”); Professors Clark, Lehr, and Bauer agree: “[W]e believe that any rules the FCC approves should consider not just ISPs and end-users, but all of the stakeholders whose behavior might impact the health of the Internet.” MIT Professors’ Comments at 25.

<sup>107</sup> As Commissioner McDowell explained:

Internet application developers now own massive server farms and fiber optic connectivity. At the same time, broadband companies create and maintain software with millions of lines of code inside their systems. They also own app stores that are seamlessly connected to their networks. As technology advances, will the government be able to make distinctions between applications and networks necessary under a new regulatory regime? Will it be able to do so in Internet time? Perhaps most importantly, will competitors use litigation under the new regime as a competitive weapon in lieu of investing in better products and services for consumers?

McDowell Keynote at 12.

In addition, there is no basis for applying some diluted version of the proposed rules to wireless broadband providers.<sup>108</sup> Broadband providers operating on wired and wireless platforms vigorously compete against one another and Verizon and AT&T control providers on both platforms. Relaxing rules for wireless providers (or exempting them outright) would give those competitors an unjustified market advantage. Moreover, only wireless providers, not wireline providers, actually engage in blocking content and applications from their networks,<sup>109</sup> although there may be a basis in some cases where network management of congestion justifies such action. Each platform faces the same fundamental challenges in dealing with congestion and malware but if the Commission adopts an appropriately broad network management exception to any rules, such an approach will allow all platform providers to be treated equitably under the rules.

B. Net Neutrality Rules Must be Carefully Tailored to Minimize Harm to the Internet Ecosystem.

While no net neutrality rules are justified, if the Commission proceeds in that direction, it should make substantial changes to its proposals to minimize the harmful unintended consequences that will inevitably follow.

1. *The Discrimination Rule is Too Broad.*

The Commission should reject its proposed determination that nondiscrimination means “that a broadband Internet access service provider may not charge a content, application, or service provider for enhanced or prioritized access to the subscribers of the broadband Internet

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<sup>108</sup> Notice ¶ 154.

<sup>109</sup> Comments of Sling Media, Inc. at 5 (claiming its service was blocked by AT&T); Comments of ColorOfChange.org at 4 (claiming that Verizon blocked text messages sent by the pro-choice group NARAL); Kevin J. O’Brien, *Skype in a Struggle to Be Heard on Mobile Phones*, N.Y. Times, Feb. 17, 2010, available at <http://www.nytimes.com/2010/02/18/technology/18voip.html> (reporting that Skype’s CEO “could tick off the names of mobile phone operators that block his company’s service. But . . . it is quicker to name those that allow it, no strings attached,” because there are only two of them, one in Europe and one in the United States.); Erica Ogg, *Apple blocks Google Voice app for iPhone*, CNET, July 28, 2009, [http://news.cnet.com/8301-13579\\_3-10297618-37.html](http://news.cnet.com/8301-13579_3-10297618-37.html).

access service provider.”<sup>110</sup> As explained earlier, such an absolute ban on two-sided market arrangements, particularly at this early stage of Internet development, will discriminate in favor of large entrenched companies like Google that already have multibillion dollar investments in transmission facilities and servers in place that provide their services with prioritization and quality of service advantages that new or smaller competitors cannot afford to replicate. Banning such pricing models will discourage broadband investment, freeze innovation in its tracks and continue the current arrangement where end users pay the lion’s share for the deployment and operation of current and next generation networks, thereby driving up end user costs and depressing broadband adoption rates.<sup>111</sup> Preserving multi-sided pricing arrangements as options will encourage broadband investment, promote innovative new services and business models, promote broadband adoption and increase consumer welfare.<sup>112</sup> MIT Professors Clark, Lehr and Bauer explain:

[W]e believe that the FCC has failed to make a sufficient case for why such a [nondiscrimination] rule would be beneficial at this time. As proposed, we see the potential for more harm in deterring potentially beneficial innovations such as expanded deployment of QoS mechanisms by ISPs than benefit in addressing the risk that ISPs might engage in harmful discrimination. We do not recommend adopting the discrimination rule.<sup>113</sup>

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<sup>110</sup> Notice ¶¶ 106, 111-112.

<sup>111</sup> As explained by Professors Clark, Lehr, and Bauer, “We do not believe that this is a useful or balanced prohibition. . . . For example, we are moving toward a future where the service agreement of the consumer (at the point of access) is defined as much by the usage cap as by the peak rate. As a result, we could easily imagine an arrangement in which a content provider pays an access provider to carry traffic to the subscriber without having that traffic count against the usage quota of the subscriber. . . . The non-discrimination rule seems to have the objective of protecting the content provider and/or application developers. We are not convinced that the potential for abusive discrimination is manifest enough to require a rule. What we see today is legitimate economic discrimination, which is a natural market phenomenon.” MIT Professors’ Comments at 21-22.

<sup>112</sup> *See supra* at 8-12. The Commission itself acknowledged that there can be “socially beneficial discrimination.” Notice ¶ 103.

<sup>113</sup> MIT Professors’ Comments at 25.

As many commenters observed, the Commission’s proposed “discrimination” definition is more strict than the Title II standard and inappropriate for information services provided in a competitive market.<sup>114</sup> Time Warner Cable points out:

Creating a strict nondiscrimination requirement under Title I—which imposes no specific obligations at all—for providers of information services, when Congress established a more flexible standard allowing reasonable forms of discrimination even by monopoly telephone providers, would conflict with the basic structure and logic of the Act.<sup>115</sup>

Such a flat ban could outlaw numerous existing and new beneficial business arrangements such as paid peering, VoIP priority, customized application prioritization by consumers, efforts by edge providers to improve their offerings with a broadband provider’s support, edge caching and other collocation services.<sup>116</sup>

Recognizing that any nondiscrimination principle directed at Title I broadband provider services should reflect the more competitive and dynamic characteristics of the industry and should be targeted primarily on anticompetitive concerns, the Commission should apply the standard suggested by several commenters which would prohibit “unreasonable and anticompetitive” discrimination.<sup>117</sup> At most, the Commission should opt for the Title II “unjust or unreasonable discrimination” standard which would have the benefit of an existing body of precedent which, in turn, would minimize the uncertainty created by the new regime.<sup>118</sup>

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<sup>114</sup> See, e.g., TWC Comments at 64-65; AT&T Comments at 103-114; Verizon Comments at 92-98.

<sup>115</sup> TWC Comments at 63.

<sup>116</sup> See, e.g., Comcast Comments at 40-41; AT&T Comments at 110-14.

<sup>117</sup> Comments of Corning Incorporated at 15 (“[T]he Commission’s standard should only prohibit conduct that constitutes ‘unreasonable discrimination,’ defined as conduct that is anticompetitive or substantially harmful to consumers.”); Comments of Nokia Siemens Networks US LLC, at 11 (hereinafter “Nokia Comments”) (“[T]he [nondiscrimination] principle should prohibit unreasonable discriminatory treatment of Internet traffic that is anticompetitive and harms consumers.”). See also Comcast Comments at 42.

<sup>118</sup> 47 U.S.C. § 202(a). See, e.g., Comments of Clearwire Corp. at 14; Qwest Comments at 43-45; Comments of TDS Telecommunications Corp. at 7; CWA Comments at 15-16; NECA Comments at 8-9.

2. *Network Management Techniques Should be Presumed Reasonable if they are Intended to Address Legitimate Network Management Problems.*

The Commission recognizes that network management is necessary because “the general usefulness of the Internet could suffer if spam floods the inboxes of users, if viruses affect their computers, or if network congestion impairs their access to the Internet.”<sup>119</sup> The comments provide substantial background on the monumental scope of network management battles, which are only becoming more difficult to manage given the growing sophistication of network threats and the increasing demands on network capacity posed by the exponential growth of video and other applications.<sup>120</sup>

The Center for Strategic and International Studies recently reported that more than half of the world’s critical infrastructure companies have been the target of cyber attacks and that “[t]here is no identifiable protection model that will keep pace with the evolution and sophistication of cyber threats.”<sup>121</sup> The recent high profile hacking of Google’s servers, as well as those of a number of other companies, highlights the ever present risk of cyber attacks even for the most well funded and sophisticated entities.<sup>122</sup> Broadband providers must be able to

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<sup>119</sup> Notice ¶ 133. As the Broadband Plan reports, “[i]n October 2009, spam accounted for 87% of all email, and 1.9% of these spam messages contained malware. . . . [T]he number of computers infected with malware viruses rose more than 66% between the fourth quarter of 2008 and the second quarter of 2009. . . .” Broadband Plan at 57 (internal citations omitted).

<sup>120</sup> See, e.g., Comments of Alcatel-Lucent at 2 (“As bandwidth is added, it is rapidly consumed by ever more consumers and increasingly sophisticated devices and applications, creating even more demand for bandwidth.”); Comments of Messaging Anti-Abuse Working Group at 6 (“[A]ny regulation adopted by the Commission should acknowledge the relentlessly evolving nature of this ongoing challenge and allow the technical experts who manage networks on a day-to-day basis to respond to such threats as they arise, without first having to apply to regulators for permission.”); Verizon Comments at 52 (standards of “reasonableness” and “nondiscriminatory” are “not uncommon in the law. But they are particularly problematic here, in the context of an extremely dynamic environment” to which network providers must be able to respond quickly.)

<sup>121</sup> Center for Strategic and International Studies, *In the Crossfire: Critical Infrastructure in the Age of Cyber War*, at 4-5, 33 (Jan. 28, 2010), available at <http://csis.org/event/crossfire-critical-infrastructure-age-cyber-war>.

<sup>122</sup> Jim Finkle, *Google China hackers stole source code – researcher*, Reuters, Mar. 3, 2010, available at <http://www.reuters.com/article/idUSN0325873820100303?type=marketsNews>. The Messaging Anti-Abuse Working Group reports that in 2008 its members identified 89% to 92% of email traffic as “abusive.” Messaging Anti-Abuse Working Group Comments at 3. According to the Broadband Plan: “The incidence of malware such as password-stealing software directed at banking and financial accounts increased more than 186% [between the fourth quarter 2008 and the second quarter 2009]. Broadband Plan at 57.

defend against these sophisticated threats quickly and flexibly to minimize damage to networks and customer information and equipment. Any regime that imposes a fear of regulatory reprisal for implementing defenses against new and ever-changing cyber threats, viruses and malware will undermine the very usefulness of the Internet as consumers currently enjoy it. As Fiber to Home Council observes: “[i]t would be a nightmare for users if I had to check with my lawyers every time I needed to make a decision. The network would shut down.”<sup>123</sup>

Moreover, the exploding demand for broadband capacity and the huge private investment that will be required to keep pace with this demand underscore the importance of allowing broadband providers maximum flexibility in implementing network management tools that control congestion and maximize their ability to utilize existing capital as efficiently as possible to promote investment in new infrastructure. Many commenters observe that an unmanaged network is not a neutral network. Cisco explains:

Solutions demanding exclusive resort to massive capacity enhancements fail to recognize that consumers only want and need some traffic to be subject to expedited handling; e-mail messages, web browsers, and similar applications are simply not affected by a microsecond’s delay in nearly the same way that a video or gaming application might be. Moreover, even massive facilities deployment will never prepare the network for public-safety crises, pop-culture events, or similar occurrences, which draw traffic levels that are likely to overcome capacity and necessitate management irrespective of the extent of investment. In short, network management and capacity enhancements effectively maximize the consumer experience as the lowest cost. Removing the network management tool will drive up costs, degrade the consumer experience, or both.<sup>124</sup>

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<sup>123</sup> Comments of Fiber-to-the-Home Council at 9. *See also* Verizon Comments at 9-10 (“The proposed rules, however, would inevitably create significant uncertainty as to what would ultimately be deemed reasonable and what would not – uncertainty that itself would have a deleterious effect by requiring engineers to repeatedly clear technical strategies with the requisite squadron of lawyers who themselves would have to evaluate practices based on inherently indeterminate standards subject to the risk of sanctions, inevitably slowing responses to new security threats and other rapidly changing conditions.”).

<sup>124</sup> Cisco Comments at 11. *See, e.g.,* Corning Comments at 17 (“The absence of any network management would only harm consumers. . . . This presumption of permissibility should only be overcome where it is shown that the specific network management technique in question is proven to be anticompetitive or harmful to consumers as demonstrated by an inconsistency with the Commission’s consumer protection policies set forth in the Communications Act.”); Comments of Ericsson Inc. at 7 (“Today, in all networks, certain kinds of traffic are differentiated and prioritized over others for legitimate, service quality reasons. Some “discrimination” is entirely valid and is needed to make networks function effectively.”).

Network management techniques that acknowledge these different requirements and consumer expectations have long differentiated traffic to maximize consumer satisfaction over finite broadband capacity to create the Internet experience that is so highly valued today.<sup>125</sup> The Association of Competitive Technologies explains that modern applications increasingly require network management to ensure quality of service which its members see as an “opportunity to partner with broadband Internet service providers, not be oppressed by them.”<sup>126</sup>

Critically, effective network management will also be needed to attract the hundreds of billions of dollars required to build next generation networks. Network management techniques allow for more than twice the traffic over networks as would be possible without network management.<sup>127</sup> Achieving such efficiencies is critical with per subscriber broadband consumption expected to increase 360 percent between 2008 and 2013 from 18GB to over 80 GB per sub per month.<sup>128</sup> As explained by economist Michael Katz, network management allows for the provision of services at a “lower unit” cost and limiting it will lower return on investment thereby diminishing investment.<sup>129</sup> Conversely, promoting the efficient use of capital by facilitating effective network management will increase returns on investment and help attract the enormous private capital necessary to build next generation networks.

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<sup>125</sup> Cisco Comments at 6-7 (“American broadband users rely on a broad range of applications, ranging from simple web browsing and email services to voice over Internet protocol and file-sharing to distance learning to telemedicine to streaming media to real-time high-definition video. These applications vary widely in their thirst for bandwidth, as well as in their tolerance for latency and jitter. Thus, the value of these offerings – and their ability to serve consumers’ needs – depends in a very concrete way on the ability of a provider to ‘discriminate’ between different packets based on the class of service, the source of the content, or other factors.”) (internal citation omitted).

<sup>126</sup> ACT Comments at 13.

<sup>127</sup> Cisco Comments at 10 (“Indeed, studies suggest that this approach [expansion of capacity alone] would increase the cost of broadband access between \$100 and \$400 per subscriber per month. Cisco’s own research suggests that use of network management and quality of service can provide a 2.5 times increase in bandwidth on existing networks.”) (internal citation omitted).

<sup>128</sup> Atkinson and Schultz Broadband Report at 50 Figure 12. *See also* Broadband Plan at 17.

<sup>129</sup> Verizon Comments - Katz Decl. ¶ 48.

Given these considerations, the proposed rules should be revised to provide substantially more flexibility and to minimize costly and time-consuming legal entanglements that will undermine Internet innovation, investment, competition and speech. To start with, the Commission should reject the *Comcast/BitTorrent* standard as proposed in the Notice.<sup>130</sup> To minimize the uncertainty inherent in the proposed “reasonableness” standard, the rule should provide that a network management practice will be presumed reasonable as long as it is intended to alleviate a legitimate network management problem.<sup>131</sup> The Commission should also reaffirm its proposal to allow “other reasonable network management practices” in recognition of the highly technical and quickly changing challenges that confront providers in delivering “robust, safe, and secure Internet access to their subscribers....” A party challenging a particular practice should have a heavy burden of proof. As recommended by the National Cable & Telecommunications Association, “[t]o rebut the presumption of reasonableness, a complaining party should be required to present clear and convincing evidence that the challenged technique was *not* a bona fide attempt to alleviate such a legitimate problem and that its primary purpose and effect was to harm a competitor and/or discourage the dissemination of certain content or applications for reasons other than network management.”<sup>132</sup>

The Commission should also establish a safe harbor that protects any network management practice that follows the IETF or an industry trade group’s recommended standards

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<sup>130</sup> Notice ¶ 137.

<sup>131</sup> A number of commenters recommend this approach to properly balance the competing interests at stake. *See, e.g.*, NCTA Comments at 29; TWC Comments at 71. As proposed by the Commission, legitimate network management problems include reduction or mitigation of congestion, quality of service issues, unwanted or harmful traffic, and transfer of unlawful content. Notice ¶¶ 135-139.

<sup>132</sup> NCTA Comments at 29. *See also* Comcast Comments at 56-57; Charter Comments at 17-19; AT&T Comments at 187. *See also* Economists’ Declaration ¶ 48 (“Conduct should be considered permitted unless, after a case-specific adjudication of the facts, it can be shown to be harmful, on net, to economic efficiency and consumer welfare.”).

or best practices.<sup>133</sup> It should also be clarified that any network management practice or arrangement that is implemented by or with the consent of the end user will be deemed reasonable.<sup>134</sup> These rule modifications and clarifications will help mitigate the harmful unintended consequences that will flow from the proposed rules, promote investment and competition and increase the ability of network providers to “experiment and innovate as user needs change.”<sup>135</sup> Reliance on a flexible approach is a realistic solution because of the community policing enabled by the Internet itself with blogs, tweets and social networks triggering virtually instantaneous national/international condemnation in response to objectionable or unpopular practices by broadband providers, as well as, others in the Internet ecosystem.<sup>136</sup> In addition, adoption of such flexible rules will allow the Commission to apply them evenhandedly to all competing broadband platforms and ecosystem players alike – e.g., wireless, wireline, backbone providers, CDNs and edge service providers.<sup>137</sup>

3. *Enforcement Policies Should Protect Innovation and Investment by Broadband Providers By Establishing a Presumption of Reasonableness and Discouraging Frivolous Litigation.*

As explained in Charter’s comments, subjecting fast changing network management practices and quickly evolving business models to the threat of collateral legal attack and second-guessing by third parties, including those with a financial interest in resisting change, is a certain recipe to undermine innovation and investment by broadband providers, contrary to the

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<sup>133</sup> See Comcast Comments at 52-55.

<sup>134</sup> Time Warner notes that a customer may want to expressly ask a provider to block P2P to keep a teenager from downloading pirated materials or to ensure adequate bandwidth for other more valued applications in the household. Any such customer requested or enabled “blocking” should be per se reasonable. TWC Comments at 71-72.

<sup>135</sup> Notice ¶ 140.

<sup>136</sup> See Daniel L. Brenner, Creating Effective Broadband Network Regulation, 62 Fed. Comm. L.J. 67-70 (Jan. 2010) (“It is the intentional feedback mechanisms of the Internet, perhaps best portrayed by wikis and blogs, which represent a useful nongovernmental approach to solving Internet management disputes. . . . There is no reason to think that many management issues cannot substantially benefit from the public give-and-take of the Internet.”).

<sup>137</sup> See also Nokia Comments at 6 (“Network management tools are used essentially in all communications networks for a variety of purposes.”).

objectives of the National Broadband Plan.<sup>138</sup> Commissioner McDowell recently recognized these concerns:

Perhaps most importantly, will competitors use litigation under the new regime as a competitive weapon in lieu of investing in better products and services for consumers? Companies come to the FCC all the time asking us to regulate their rivals. Wouldn't we be providing a new platform to do just that?...Would this new regime create the environment needed to attract up to \$350 billion in private risk capital to build out America's broadband infrastructure, as the Commission analysts drafting the National Broadband Plan have estimated?<sup>139</sup>

If the Commission adopts rules (which we strongly urge against), it can take measures to mitigate the damage to the existing ecosystem that has done so much to allow the Internet to evolve to its current successful state.

The Commission should preempt state and local laws with regard to any disputes that arise under its net neutrality rules and direct that all such disputes must be brought to the Commission for resolution. Network management practices and business arrangements of broadband providers should be presumed reasonable and complainants should bear a heavy burden of proof to rebut that presumption.<sup>140</sup> The Commission should direct that no damages are available for any alleged rule violation and that equitable relief will only be applied where a broadband provider has no reasonable grounds to believe that the use of a network management technique or introduction of a business arrangement (including managed services) was lawful. To ensure the learning process continues to evolve, to encourage experimentation and to deter frivolous litigation, the Commission should also retain the right to impose costs and legal fees on complainants that abuse the Commission's processes.

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<sup>138</sup> Charter Comments at 17-19. *See also* Bright House Comments at 12; Comcast Comments at 58-60; TWC Comments at 33.

<sup>139</sup> McDowell Keynote at 12-13.

<sup>140</sup> *See* discussion at 35-36 *supra*. *See, e.g.*, Charter Comments at 19; Bright House Comments at 10; NCTA Comments at 29; Comcast Comments at 51; Comments of Cox Communications, Inc. at 32 ("Specifically, the Commission should establish a presumption that properly disclosed network management practices are reasonable, rebuttable only by evidence that the management tools are an artifice for anti-competitive conduct.").

## V. THE COMMISSION SHOULD ENCOURAGE THE DEVELOPMENT OF MANAGED AND SPECIALIZED SERVICES TO PROMOTE INNOVATION, INVESTMENT, COMPETITION AND CONSUMER CHOICE

The Commission estimates that it may require \$350 billion in private capital to construct the next generation broadband network.<sup>141</sup> Accomplishing this ambitious objective will require the continued growth of new revenue opportunities over “mixed-use” broadband platforms because end users of the public Internet should not be required to support such massive investments on their own.<sup>142</sup> Numerous commenters explain that only through the development of innovative new services (i.e., “managed services”) can broadband providers attract the capital investment necessary for the continued deployment of broadband and the construction of next generation networks.<sup>143</sup> The Commission should ensure that any rules it adopts give broadband providers a wide berth to innovate and experiment with new business models and technologies as the Internet continues its rapid and unpredictable evolution.<sup>144</sup>

The Notice identifies several examples of beneficial managed services (e.g., telemedicine, Smart Grid and eLearning) that would not be possible over the best efforts Internet and inquires about what other such services might be offered in the “*near future*.”<sup>145</sup> Numerous examples of potential managed services are provided in the comments,<sup>146</sup> but the reality (as recognized by the Commission’s focus on the “near future”) is that no one knows where rapidly

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<sup>141</sup> See September 2009 Commission Meeting at note 37 *supra*.

<sup>142</sup> Verizon Comments - Topper Decl. ¶ 123 (“[P]rohibiting pricing to content providers shifts the burden of supporting new investment onto the shoulders of end consumers.”).

<sup>143</sup> The Commission recognizes the important role of such revenues in promoting broadband deployment. Notice ¶ 148 (managed or specialized services “may lead to increased deployment of broadband networks”). See, e.g., Charter Comments at 24-25; Comcast Comments at 41; Comments of Global Crossing North America, Inc. at 7-8; Qwest Comments at 22-27; Verizon Comments at 40-42; AT&T Comments at 100-102.

<sup>144</sup> As economist Michael Katz explains: “There is widespread agreement that the vast majority of investment in innovation and facilities in the U.S. broadband industry will be made by private parties, who will be motivated by the prospect of profits generated by those investments.” Verizon Comments - Katz Decl. ¶ 30.

<sup>145</sup> Notice ¶ 150 (emphasis added).

<sup>146</sup> See, e.g., Charter Comments at 23-24; NCTA Comments at 37-38; Bright House Comments at 12; Comcast Comments at 61; Verizon Comments at 12, 44; Qwest Comments at 22-27; TWC Comments at 103 (examples “could include telemedicine, smart grid, distance learning, as well as IP voice and video service.”).

changing technology, business models and user needs will lead us even a year or two from now.

As observed in the Broadband Plan:

[C]ountless other Internet-capable devices come to the market each year. . . . The emergence and adoption of new technologies such as radiofrequency identification and networked micro-electromechanical sensors, among others, will give rise to the “Internet of Things.” . . . [T]he Internet of Things will likely create whole new classes of devices that connect to broadband, and has the potential to generate fundamentally different requirements on the fixed and mobile networks . . . .<sup>147</sup>

In light of this reality, the Commission should not try to categorize managed services in advance nor should it apply net neutrality rules overbroadly and then try to identify specific managed services that should be excluded. Instead, the Commission should narrow and clarify the proposed definition of “broadband Internet access service” and make clear that it applies only to best efforts Internet service and that no other broadband provider services will be subject to the net neutrality rules adopted in this proceeding. This revision will achieve the Commission’s objective of applying net neutrality principles to the public Internet while allowing innovation and experimentation to continue over broadband platforms by ensuring that managed services are not subject to any rules adopted in this proceeding.<sup>148</sup> The Commission should also reaffirm that any “net neutrality” regime will not be superimposed onto core video services (e.g., cable television), which have long operated successfully under entirely different business models.

In pursuing this approach, the Commission should expressly reject several proponent proposals that will undermine the National Broadband Plan as well as the Commission’s objectives in this proceeding. The Commission should not (i) defer action on managed services

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<sup>147</sup> Broadband Plan at 18.

<sup>148</sup> There is broad support for ensuring that the Commission does not apply its rules to managed services. *See, e.g.*, Charter Comments at 22-23; Bright House Comments at 13-15; Comcast Comments at 61; AT&T Comments at 96-102; Verizon Comments at 77-81; Qwest Comments at 23-24; SureWest Comments at 45-48.

pending a further notice of proposed rulemaking;<sup>149</sup> (ii) require “case-by-case” Commission approval to offer any managed service;<sup>150</sup> (iii) require managed services to be carried on separate bandwidth from that allocated to public Internet traffic;<sup>151</sup> or (iv) prohibit bundling of managed services with broadband access.<sup>152</sup> In addition, the Commission should expressly reject calls to require broadband providers to establish some fixed amount of capacity to be set aside for public Internet access.<sup>153</sup> There is no basis in the record (or legal authority) for such heavy handed measures that will harm investment and innovation. The current record of cable broadband providers’ investment in broadband capacity (over \$160 billion since 1996, with over \$8 billion by Charter alone), and the ongoing aggressive deployment of faster and more robust broadband access services like DOCSIS 3.0, FIOS and 4G networks shows<sup>154</sup> that the existing competitive market provides more than enough incentives to ensure continued investment in broadband access services without government intervention.

As Charter explained in its Comments, proponents’ alarmist speculation that broadband providers will “starve” the Internet or that the public Internet will become a “dirt road” have no basis and are belied by the facts. Far from starving the Internet, broadband providers have showered it with hundreds of billions of investment dollars in deploying the state of the art networks that have enabled innovation and over-the-top competition that is so highly valued by all participants in this proceeding and which the Commission seeks to preserve. Comments by broadband providers uniformly see this investment continuing in order to satisfy customer

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<sup>149</sup> Google Comments at 76-77.

<sup>150</sup> PIC Comments at 34-35.

<sup>151</sup> Comments of Center for Democracy & Technology at 48-49.

<sup>152</sup> *See, e.g.*, PIC Comments at 34-35; Google Comments at 75.

<sup>153</sup> Notice ¶ 151.

<sup>154</sup> Broadband Plan at 21-22; Atkinson and Schultz Broadband Report at 40-48, 51-53.

preferences in the competitive marketplace,<sup>155</sup> and the Commission should not obstruct this process by imposing restrictions on managed services that will undermine that process.

## **VI. REASONABLE TRANSPARENCY GUIDELINES SHOULD BE ESTABLISHED**

Most commenters agree with the Commission's objective that consumers receive necessary information about network traffic management practices in a manner that "is minimally intrusive" to avoid unnecessary burdens on network providers.<sup>156</sup> To this end, several commenters agree with Charter that the recently adopted Canadian disclosures establish the basis for a reasonable checklist that properly balances the level of information needed by customers to understand network management practices that "may reasonably affect the customer's ability to send or receive content, use the services, run the applications, and enjoy the competitive offerings of their choice."<sup>157</sup> Other commenters correctly observe that the current competitive market place compels broadband providers to make substantial disclosures to customers or risk the loss of the customer to a competitor and that the best course is to rely upon self regulation based on industry best practices.<sup>158</sup> Either of these approaches will be sufficient to achieve the disclosure balance sought by the Commission while avoiding the imposition of detailed,

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<sup>155</sup> The American Consumer Institute estimates continued aggregate broadband investment by network providers at approximately \$30 billion a year between 2010 and 2015, exceeding \$182 billion over this period. Larry F. Darby & Joseph P. Fuhr, ACI, *Innovation and National Broadband Policies: Facts, Fiction and Unanswered Questions*, Mar. 2, 2010, at 14, available at <http://www.theamericanconsumer.org/wp-content/uploads/2010/03/innovation-final.pdf>. See Todd Spangler, *Report: DOCSIS 3.0 To Blanket U.S. By 2013*, Multichannel News, May 1, 2009, available at [http://www.multichannel.com/article/231033-Report\\_DOCSIS\\_3\\_0\\_To\\_Blanket\\_U\\_S\\_By\\_2013.php](http://www.multichannel.com/article/231033-Report_DOCSIS_3_0_To_Blanket_U_S_By_2013.php) (reporting that analysts predict DOCSIS 3.0 technology will be available to 99% of homes passed by cable by 2013 as part of an expected \$1.2 billion invested in infrastructure); Atkinson and Schultz Broadband Report at 28-32, 64-68. Verizon Comments at 18 (noting it plans to invest \$23 billion in its network, extending fiber to "19 million premises" by the end of this year). Cablevision has already extended DOCSIS 3.0 throughout its service territories, and Comcast planned to cover 80% of its footprint by the end of 2009. Verizon Comments - Topper Decl. ¶ 30. Meanwhile, wireless carriers continue to aggressively roll out 4G networks and LTE. Verizon Comments at 15-16.<sup>156</sup> Notice ¶ 118.

<sup>157</sup> See, e.g., Charter Comments at 20-21; AT&T Comments at 93; Alcatel-Lucent Comments at 26.

<sup>158</sup> See, e.g., TWC Comments at 99 ("The threat of consumer backlash along with the protections provided by existing consumer protection laws create strong incentives to provide complete and accurate disclosures regarding network management practices. Through such measures, the industry already achieves the goal behind the NPRM's proposed disclosure requirement. . . ."); Comcast Comments at 44-46; Verizon Comments at 49; AT&T Comments at 190-91.

expensive and unnecessary requirements on providers urged by some.<sup>159</sup> As Charter and others explained, heaping detailed technical information on consumers is ineffective as an educational tool and more often than not customers will simply disregard such over inclusive disclosures, although the information may provide an excellent roadmap for parties intent on infiltrating a network with spam and malware.<sup>160</sup>

The comments also provide substantial support for targeting disclosures to end users only and not imposing a duty on broadband providers to provide information to third party edge service providers with whom the broadband provider has no contractual relationship. As Comcast points out:

In other words, [the Notice] proposes to impose a duty on broadband ISPs that potentially would require them to provide proprietary information *to tens of millions of parties around the globe who are not even their customers*. Today, a broadband ISP's duty of transparency appropriately flows to its customers, the end users who pay to receive the high-speed Internet service it provides.<sup>161</sup>

The same disclosures that broadband providers make available to their customers over their websites<sup>162</sup> are equally available to applications providers and should be more than sufficient without creating additional open ended obligations applicable only to core providers. To the extent content, application and services providers seek more detailed network management information, it is often for the purpose of undermining such network management measures,

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<sup>159</sup> See, e.g., Free Press Comments at 116-18; PIC Comments at 63-66; Google Comments at 65.

<sup>160</sup> Charter Comments at 20-21 n.51. See also Comcast Comments at 46; TWC Comments at 101-02; Qwest Comments at 16-17; AT&T Comments at 193-95.

<sup>161</sup> Comcast Comments at 46 (emphasis added).

<sup>162</sup> The Commission should rely on such website disclosures that can be monitored efficiently by all interested parties, including government agencies. No additional reporting obligations involving filings or reports to the Commission should be adopted as they would be both unnecessary and burdensome. To the extent that the Commission detects a disclosure problem in a specific situation, the Commission can follow up with a more targeted inquiry as may be appropriate under the specific circumstances consistent with the goal of remaining "minimally intrusive."

which are so critical to managing congestion and protecting end users.<sup>163</sup> Moreover, some commenters point out that industry technical groups regularly establish and discuss network management practices and that content, application and services providers participate in such forums together with broadband providers. It is unnecessary to add legal obligations or more layers of regulation on top of such voluntary and well functioning mechanisms.<sup>164</sup>

A number of commenters recognize that for the Commission to achieve its objective – empowering a customer with information that “may reasonably affect the customer’s ability to send or receive content, use the services, run the applications, and enjoy the competitive offerings of their choice” – then any transparency obligations should also extend to content, applications and services providers.<sup>165</sup> Similarly, it is widely observed that Google algorithms block or degrade consumers’ access far more pervasively than the network management practices of any broadband provider.<sup>166</sup> Foundem provides numerous specific examples of how Google’s preferential treatment of its own affiliated Internet services (GoogleMaps and Google Product Search) – both in the United States and abroad – has materially damaged competitors yet Google does not disclose to consumers or those competitors how its algorithm (or exemptions from it for Google affiliated services) operates to skew search results.<sup>167</sup> As noted earlier, nontransparent manipulation of search results has also harmed open political and civic discourse

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<sup>163</sup> See, e.g., TWC Comments at 102 (“In fact, proponents of regulation readily concede that they are at least partially motivated by a desire to develop ‘counter-measures’ to circumvent broadband Internet access service providers’ efforts to manage their networks.”); Comcast Comments at 47.

<sup>164</sup> Comcast Comments at 57-63 (suggesting the Commission consider establishing an “Open Internet Advisory Committee” modeled after the Communications Security, Reliability, and Interoperability Council that could advise the Commission on technical issues and publish industry-accepted best standards); MIT Professors’ Comments at 16 (suggesting that a group called the W3C Consortium is an example of such a forum for stakeholders to reach agreement.). See also Google and Verizon Joint Submission to the FCC on the Open Internet, Jan. 14, 2010 (expressing support for a strong role for expert stakeholder groups in the FCC’s future regulatory efforts).

<sup>165</sup> See, e.g., Bright House Comments at 11; TWC Comments at 100; Comcast Comments at 47-48; Qwest Comments at 11; AT&T Comments at 195-207; Verizon Comments at 49.

<sup>166</sup> See, e.g., AT&T Comments at 195-207 (“[T]he Commission cannot responsibly address Internet ‘neutrality’ without considering the significant role that search engines play in affecting consumers’ access to online content, applications, and services – and online content, application and service providers’ access to consumers.”).

<sup>167</sup> Foundem Comments at 3-8.

as Google search buries ideas that it disfavors while providing more prominent exposure to those that it favors.<sup>168</sup> As National Organizations points out, Google’s nontransparent search engine algorithm and other practices that favor entrenched businesses or companies that can afford to pay for prominent placement on search results “...inure to the great detriment of small businesses that lack access to capital – an affiliation the Commission has particularly recognized as ailing minority small businesses.”<sup>169</sup>

In light of these considerations, the Commission should work with all participants in the Internet ecosystem (edge and core) to establish best practices regarding key information to be disclosed to end users.

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<sup>168</sup> See pp. 25-27 *supra*.

<sup>169</sup> National Organizations Comments at 30-31 (“Search engine practices [i.e., Google’s] that assign visibility to businesses based on wealth rather than merit would impose a classic cycle of invisibility to minority enterprises: without access to capital they cannot secure visibility; but without visibility they cannot secure access to capital.... [T]o the extent the Commission concludes that net neutrality rules are necessary to protect users from entities that would otherwise be free to control the Internet experience of others in un-neutral and harmful ways, the Commission should examine whether it should apply its rules to content, applications, and service providers.”).

## CONCLUSION

The Commission has compiled a compelling record demonstrating that there is no justification for adopting the proposed rules and that adopting them will undermine the objectives of the National Broadband Plan. In light of this record and the statutory and constitutional limitations on the Commission's authority, the proposed rules should not be adopted. The Commission should reject radical calls to impose monopoly era Title II requirements on broadband providers. If the Commission proceeds to adopt rules in spite of the record and the law, it should make the revisions proposed herein to minimize the damage done to the now thriving and dynamic Internet ecosystem.

Respectfully submitted,

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