

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

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

**REPLY COMMENTS OF CTIA – THE WIRELESS ASSOCIATION®**

Christopher Guttman-McCabe  
Vice President, Regulatory Affairs

Michael F. Altschul  
Senior Vice President and General Counsel

Scott K. Bergmann  
Assistant Vice President, Regulatory Affairs

David J. Redl  
Director, Regulatory Affairs

**CTIA-The Wireless Association®**  
1400 Sixteenth Street, NW  
Suite 600  
Washington, DC 20036  
(202) 785-0081

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## SUMMARY

The mobile broadband industry, in the initial Comments filed in this proceeding, has demonstrated the dynamic, innovative, and consumer-oriented nature of the wireless ecosystem. The record before the Commission makes clear what CTIA stressed in its opening Comments: there is simply no basis for the Commission to adopt the proposed net neutrality rules and to apply them to wireless broadband service providers. Instead, the action proposed by the Commission would inject uncertainty and confusion into the wireless ecosystem, disrupting the virtuous cycle of innovation, investment, and customer satisfaction that is the industry's trademark. The Commission should not risk that uncertainty, and should not apply the proposed net neutrality rules to the wireless ecosystem.

First, the Commission's *Open Internet NPRM* failed to justify the application of the proposed rules to wireless broadband service providers and networks, citing instead to only isolated, outdated cases involving wired broadband providers. Moreover, no commenter in this proceeding has provided an adequate basis for wireless broadband regulation. Neither the Commission nor any commenter can justify a reversal of course from Congressionally-mandated deregulatory policies of the wireless market that have been in place for nearly two decades and that have reaped significant public interest benefits, as well as the Commission's nearly 15 year track record of deregulation of information services.

Second, the record demonstrates that through reliance on competitive forces, rather than prescriptive rules, the Commission has enabled a wireless ecosystem characterized by innovation and investment. Without prescriptive regulation, there is significant competition not only among mobile broadband providers, but also among operating system providers, device manufacturers, network equipment manufacturers, and application developers. As a result there is an

unprecedented number of innovative devices, applications and other content, diverse plans, and networks that are continually being upgraded to better serve customers. Most significantly to this proceeding, without intrusive rules, mobile broadband providers are increasingly offering devices that feature greater openness in order to meet customer demand. The Commission would best serve the public interest by allowing this virtuous cycle to continue.

Third, the proposed rules ignore the significant technological differences between wireless networks and their wireline counterparts. The looming spectrum crisis facing the mobile broadband industry is well established, and while the National Broadband Plan provides a path to additional resources over the next five years, the current spectrum shortage is a crisis with no imminent solution. Meanwhile, the use of spectrum and the mobile nature of wireless customers, combined with an integration of devices into the network unique to the wireless ecosystem, require that network operators continually manage their networks to serve customers. These technological differences make the application of net neutrality regulation to wireless inappropriate at best and crippling at worst.

Fourth, there will be significant negative consequences to wireless networks and the consumers who use them should the proposed rules be adopted – consequences that the Commission failed to recognize in the *Open Internet NPRM*. For wireless networks, network management is key to the provision of quality service, and it drives competition among wireless providers. As evidenced by the recent 700 MHz C Block auction, the Commission's proposed regime would inject significant uncertainty into the wireless ecosystem and harm consumers.

Fifth, the Commission does not have the legal authority to impose the contemplated rules. Most critically, the D.C. Circuit's recent decision in *Comcast v. FCC* rejected the legal authority upon which the *Open Internet NPRM* was grounded. Under the APA, the Commission cannot

adopt rules premised on a Notice citing incorrect authority, nor can the Commission adopt rules based on legal authority not contained in the NPRM. In addition, the Commission lacks such authority because five of the six proposed rules would impose common carrier regulations by requiring broadband Internet access providers to offer non-discriminatory Internet access and because regulation of wireless broadband Internet access would represent a fundamental change from established Congressional and FCC policy.

In short, the imposition of net neutrality rules on wireless broadband is without merit, unnecessary in the face of amazing innovation and investment, and will destabilize a thriving ecosystem resulting in a potentially dangerous outcome. As our country struggles to recover from a staggering economic collapse, taking steps to undermine a fully functioning and thriving segment of the economy is nothing short of reckless. Instead, the Commission should continue its nearly two decades of promoting innovation, investment, and competition through its market-based approach to wireless broadband services.

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**REPLY COMMENTS OF CTIA – THE WIRELESS ASSOCIATION®**

CTIA – The Wireless Association® (“CTIA”)<sup>1</sup> hereby submits the following Reply Comments in response to the Commission’s Notice of Proposed Rulemaking (“*Open Internet NPRM*”) in the above-captioned proceedings.<sup>2</sup> As discussed below, the record in this proceeding confirms CTIA’s initial Comments regarding the state of the wireless ecosystem and underscores the inappropriateness of applying net neutrality rules to wireless broadband. In short, the wireless ecosystem is thriving, and neither the Commission nor any commenter has provided a basis to disrupt this innovative, consumer-centric industry through the imposition of net neutrality regulation. Such regulation would contravene numerous Commission policies, and would indeed further strain a technological environment that is facing a looming capacity crisis. Regulation by its very nature injects uncertainty that threatens innovation and investment, and the rules proposed in this proceeding would be particularly damaging. Further, as the Commission’s light touch approach to the wireless broadband industry has yielded significant

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<sup>1</sup> CTIA – The Wireless Association® is the international organization of the wireless communications industry for both wireless carriers and manufacturers. Membership in the organization covers Commercial Mobile Radio Service (“CMRS”) providers and manufacturers, including cellular, Advanced Wireless Service, 700 MHz, broadband PCS, and ESMR, as well as providers and manufacturers of wireless data services and products.

<sup>2</sup> *Preserving the Open Internet*, Notice of Proposed Rulemaking, 24 FCC Rcd 13064 (2009) (“*Open Internet NPRM*”).

public interest benefits, the adoption of such rules constitute a reversal of course for which the Commission has supplied no adequate legal basis. In short, the Commission’s proposed action is unwarranted, ill-advised, potentially reckless, and should be rejected.

**I. FROM A POLICY PERSPECTIVE, NEITHER THE COMMISSION NOR ANY COMMENTER HAS JUSTIFIED THE APPLICATION OF THE PROPOSED RULES TO WIRELESS BROADBAND NETWORKS.**

As CTIA observed in its initial Comments, the Commission’s *Open Internet NPRM* contained no evidence that wireless broadband network providers are currently preventing consumers from accessing the “open Internet” the Commission seeks to protect.<sup>3</sup> Today’s vibrantly competitive wireless marketplace is a testament to the well-established FCC policy to not impose onerous regulations on wireless service providers. CTIA urges the Commission to continue this deregulatory approach to the Internet generally and wireless broadband specifically – a position echoed by multiple commenters who noted the numerous public interest benefits flowing from the Commission’s current regulatory framework. The *Open Internet NPRM* fails to justify the proposed dramatic change to the FCC’s deregulatory approach to wireless.

Further, neither the *Open Internet NPRM* nor any commenter in this proceeding has identified an adequate factual basis for the application of the Commission’s proposed rules to wireless broadband service providers. Rather, at most comments that support the proposed rules continue to rely on speculative claims of harm that: (1) are insufficient to justify regulation; and (2) in some cases have already been proven inaccurate.

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<sup>3</sup> Comments of CTIA – The Wireless Association®, GN Docket No. 09-191 (Jan. 14, 2010) (“CTIA Comments”).

**A. Application of the Proposed Rules to Wireless Broadband Contravenes Longstanding, Successful Commission Policies.**

The proposed rules in the *Open Internet NPRM* are antithetical to the Commission’s consistent, longstanding deregulatory policies with regard to the Internet – policies grounded in the Communications Act’s “general preference in favor of reliance on market forces rather than regulation.”<sup>4</sup> Indeed, Section 230 of the Communications Act, in the more heavily regulatory Title II, states that it is the policy of the United States “to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation.”<sup>5</sup> In other words, “Congress was not seeking to pave the way for more federal regulation of the Internet, or to hand to the FCC a broad mandate over the Internet.”<sup>6</sup> The same is true for wireless services in general. With regard to wireless, Congress specifically amended the Act to implement its “general preference in favor of reliance on market forces rather than regulation.”<sup>7</sup> In the absence of any demonstrable harm, the Commission’s proposed rules are antithetical to the Act’s policy. As detailed further below, neither the Commission nor commenters in this proceeding have shown any rationale for application of the proposed rules to wireless broadband services – and there is none – that would “justify [the FCC’s] radical change in perspective on the need for regulation.”<sup>8</sup>

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<sup>4</sup> See *Petition of New York State Public Service Commission To Extend Rate Regulation*, Report and Order, 10 FCC Rcd 8187, 8190 ¶ 18 (1995); Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, 107 Stat 312 (1993) (codified in principal part at 47 U.S.C. § 332).

<sup>5</sup> 47 U.S.C. § 230(b)(2).

<sup>6</sup> Comments of the Center for Democracy and Technology, GN Docket No. 09-191, at 15 (Jan. 14, 2010) (“CDT Comments”).

<sup>7</sup> *Petition of New York State Public Service Commission To Extend Rate Regulation*, Report and Order, 10 FCC Rcd 8187, 8190 ¶ 18 (1995).

<sup>8</sup> Comments of AT&T Inc., GN Docket No. 09-191, at 94 (Jan. 14, 2010) (“AT&T Comments”).

In a speech before the Federal Communications Bar Association in 1999, then Chairman William Kennard laid the groundwork for the successful deregulatory regime that has governed broadband Internet access services since their inception:

If we've learned anything about the Internet in government over the last 15 years, it's that it thrived quite nicely without the intervention of government. In fact, the best decision government ever made with respect to the Internet was the decision that the FCC made 15 years ago NOT to impose regulation on it. This was not a dodge; it was a decision NOT to act. It was intentional restraint born of humility. Humility that we can't predict where this market is going. . . . In a market developing at these speeds, the FCC must follow a piece of advice as old as Western Civilization itself: first, do no harm. Call it a high-tech Hippocratic Oath.<sup>9</sup>

Through a series of Orders that classified various broadband services, including wireless broadband Internet access service, as information services, the Commission has made the vision of Chairman Kennard a reality and embraced deregulatory policies to promote investment in broadband networks. This deregulatory approach includes the Commission's approach to wireless broadband, which the Commission found "promotes our goal of ubiquitous availability of broadband to all Americans."<sup>10</sup>

However, the *Open Internet NPRM* "effectively ignores the *non*-regulatory context for rapid Internet innovation and growth witnessed in the last several years."<sup>11</sup> The Commission "should not abandon the historically deregulatory path that it and the U.S. government has followed with respect to the Internet, as this approach has led to substantial innovation,

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<sup>9</sup> William Kennard, *The Road Not Taken: Building a Broadband Future for America*, FCC (June 15, 1999), <http://www.fcc.gov/Speeches/Kennard/spwek921.html>.

<sup>10</sup> *Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks*, Declaratory Ruling, 22 FCC Rcd 5901, 5902 ¶ 2 (2007) ("*Wireless Broadband Classification Order*").

<sup>11</sup> Comments of The Free State Foundation, GN Docket No. 09-191, at 4 ("Free State Foundation Comments") (emphasis in original).

investment, and a thriving online culture.”<sup>12</sup> There has been no market failure that would justify this unprecedented regulation of wireless broadband access. As such, the Commission should maintain its successful deregulatory policies and not march down a path of antiquated common carrier regulation – a path marked by significant competitive risks and adverse consumer consequences, as explained below.

Indeed, and as observed by participants in this proceeding, the Commission’s decision not to impose “open access” rules on the entire 700 MHz band is reflective of the Commission’s understanding of the costs associated with regulation of wireless.<sup>13</sup> In 2007, the Commission required licensees in the 700 MHz Upper C Block “to allow customers, device manufacturers, third-party application developers, and others to use or develop the devices and applications of their choice [for use on the C Block], subject to certain conditions . . . .”<sup>14</sup> At the same time, however, it concluded “that it would not serve the public interest to mandate, at this time, requirements for open platforms for devices and applications for all unauctioned commercial 700 MHz spectrum . . . .”<sup>15</sup> The Commission stated that it would instead use the C Block experience to evaluate the effects of open platform requirements:

While the open platform requirement for devices and applications in the C Block holds the potential to foster innovation, *we cannot rule out the possibility that such a requirement may have unanticipated drawbacks as well.* Therefore, we think that it is appropriate to impose the open platform requirement only on a

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<sup>12</sup> Comments of The GSM Association, GN Docket No. 09-191, at 26 (Jan. 14, 2010) (“GSMA Comments”).

<sup>13</sup> See Comments of T-Mobile USA, Inc., GN Docket No. 09-191, at 40-41 (Jan. 14, 2010) (“T-Mobile Comments”); AT&T Comments at 152.

<sup>14</sup> *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, Second Report and Order, 22 FCC Rcd 15289, 15361 ¶ 195 (2007).

<sup>15</sup> *Id.*

limited basis. While the record in this proceeding regarding the potential merits or drawbacks of the open platform requirement for devices and applications is not so clear as to warrant adopting such conditions for the entire 700 MHz Band, *the approach that we take today will allow both the Commission and industry to observe the real-world effects of such a requirement.*<sup>16</sup>

In recognition of the uncertainty created by the C Block’s open access requirements, several bidders in the 700 MHz auction opted to purchase other licenses at a higher cost, even though these licenses covered smaller market areas and included less spectrum than the C Block license.<sup>17</sup> Indeed, the much larger, nationwide C Block license sold for approximately half the price of the much smaller 12 MHz B Block license, auctioned on a CMA basis.

The Commission should refrain from adopting new regulatory requirements akin to its open access rules when the impact of these rules has yet to be observed. As noted by AT&T, “the Commission has not even had the opportunity yet to evaluate the impact of its openness requirement on the C Block, so it has no basis for dismissing its concern about ‘unanticipated drawbacks.’”<sup>18</sup> Further, as T-Mobile correctly states, “the wireless broadband environment has only become more open” since the Commission considered the C Block’s open access

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<sup>16</sup> *Id.* at 15364 ¶ 205 (emphasis added).

<sup>17</sup> *See, e.g.*, AT&T Comments at 152 (“Moreover, other 700 MHz auction winners paid billions of dollars more to *avoid* the encumbrance of government-mandated openness, given the Commission’s express promise to restrict those requirements to the C Block.”) (emphasis in original); Comments of MetroPCS Communications, Inc., GN Docket No. 09-191, at 32-33 (Jan. 14, 2010) (“MetroPCS Comments”) (“Using Auction 73 as a case study, investors appear to have been driven away by the ‘open access’ requirements imposed on the 700 MHz C block, as compared to the A and B block spectrum which was made available in that auction without such restrictions. . . . The C block was weighted down with open access requirements and potential bidders clearly were less interested in investing money, or, as much money, on spectrum laden with these additional regulatory requirements.”).

<sup>18</sup> AT&T Comments at 152. *See also* T-Mobile Comments at 41 (“The Commission therefore has not yet had the opportunity to evaluate whether its concerns about the possible ‘drawbacks’ of an open access requirement were – and are – legitimate. As discussed above, T-Mobile believes they were, and that the drawbacks would be even more serious if the rules were applied to the industry at large. The Commission should not move forward before it has done what it sensibly decided to do and evaluate those concerns in a real-world context.”).

requirements, and thus “[t]here is accordingly even less justification now than there was in the context of the C Block for the Commission to ask the wireless industry to bear the risks and drawbacks of a mandated open access regime.”<sup>19</sup> The Commission should instead take advantage of the opportunity “to compare the openness of the robust wireless broadband ecosystem at large, *absent* regulation, to the effects of *mandated* openness in the C Block.”<sup>20</sup> The Commission would lose this opportunity and would undermine its own regulatory objectives by prematurely applying open access-like rules and more to the wireless industry at large.

**B. Commenters in the Docket Have Not Demonstrated a Basis For Applying the Proposed Rules to Wireless Broadband Services.**

In its initial Comments, CTIA observed the Commission’s failure to identify a single instance of harmful conduct in the wireless context, an observation shared by many other filers.<sup>21</sup> Similarly, commenters in this proceeding have not demonstrated any basis for applying the proposed rules to wireless broadband services. To the extent participants have attempted to characterize the conduct of wireless network operators as harmful, none of the claims of harm made can be used to justify the proposed rules. First, some commenters have raised complaints related to short message service (“SMS”) and common short code (“CSC”) traffic.<sup>22</sup> Such traffic

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<sup>19</sup> T-Mobile Comments at 41.

<sup>20</sup> *Id.* (emphasis in original).

<sup>21</sup> CTIA Comments at 9-11. *See also, e.g.*, Comments of Motorola, Inc., GN Docket No. 09-191, at 6 (Jan. 14, 2010) (“Motorola Comments”) (stating that “the two isolated examples referenced in the *NPRM*,” neither of which involved a wireless provider, “do not justify imposing industry-wide net neutrality rules”); Comments of Verizon and Verizon Wireless, GN Docket No. 09-191, at 61 (“Verizon Comments”) (“It defies explanation why the Commission would move to impose regulations in the face of a wireless broadband marketplace that has every characteristic the *NPRM* professes to want to foster. That is doubly true given the absence of any evidence of a problem – the Commission cannot point to even a *single* example in the wireless context of inappropriate blocking of content or some other arguable abuse that might make regulation necessary.”) (emphasis in original).

<sup>22</sup> Comments of 4Info, Inc., GN Docket No. 09-191, at 12-17 (Jan. 14, 2010) (“4Info Comments”); Comments of New Jersey Division of Rate Counsel, GN Docket No. 09-191, at

does not constitute Internet traffic, however, and the FCC has not classified it as either a telecommunications or an information service.<sup>23</sup> Thus, such traffic cannot be used to justify the proposed rules which relate to broadband Internet access as the Commission’s proposed rules do not address this service. Second, some commenters allege harm based on the use of deep packet inspection (“DPI”).<sup>24</sup> The use of DPI does not support any allegation of harm, though, and instead has been widely recognized as reasonable network management, especially for wireless systems.<sup>25</sup> Third, some commenters have accused wireless carriers of blocking applications.<sup>26</sup>

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25-26 n.67 (Jan. 13, 2010); Comments of NOW, Free Press, et al., GN Docket No. 09-191, at 1 (Jan. 14, 2010) (“NOW Comments”); Comments of RNK Communications, GN Docket No. 09-191, at 5, n.15 (Jan. 14, 2010).

<sup>23</sup> See, e.g., *Petition for Declaratory Ruling that Text Messages and Short Codes are Title II Services or are Title I Services Subject to Section 202 Non-Discrimination Rules*, Public Notice, 23 FCC Rcd 262, 262 (Jan. 14, 2008) (explaining that petitioners “ask the Commission to clarify the regulatory status of text messaging services, including short-code based services sent from and received by mobile phones”).

<sup>24</sup> Comments of Computer & Communications Industry Association, GN Docket No. 09-191, at 4 (Jan. 13, 2010); Comments of Free Press, GN Docket No. 09-191, at 141-151 (Jan. 14, 2010) (“Free Press Comments”); NOW Comments at 1; Comments of Open Internet Coalition, GN Docket No. 09-191, at 14, 77-82 (Jan. 14, 2010) (“Open Internet Coalition Comments”).

<sup>25</sup> For example, presentations from a wide range of participants at the Commission’s Technical Advisory Process Workshop on Broadband Network Management held on December 8, 2009 make clear there is broad consensus that DPI is a needed and reasonable network management tool. See, e.g., Paul Sanchirico, Vice President, Cisco Service Provider Systems Unit, *A Discussion with the FCC on the Open Internet*, at slides 15-23 (Dec. 8, 2009), [http://www.openinternet.gov/workshops/docs/ws\\_tech\\_advisory\\_process/Cisco%20FCC%20Network%20Management%20Presentation%20120809.pdf](http://www.openinternet.gov/workshops/docs/ws_tech_advisory_process/Cisco%20FCC%20Network%20Management%20Presentation%20120809.pdf) (explaining reasonable network management actions including the use of DPI); Tom Sawanobori, Vice President of Network and Technology Strategy, Verizon, *Network Management: Network and Technology*, at slide 15 (Dec. 8, 2009), [http://www.openinternet.gov/workshops/docs/ws\\_tech\\_advisory\\_process/Tom%20Sawanobori%20Slides.pdf](http://www.openinternet.gov/workshops/docs/ws_tech_advisory_process/Tom%20Sawanobori%20Slides.pdf) (addressing the need for “traffic shaping” to “optimize performance”); K.C. Claffy, *Historical and Architectural Context for Traffic Management Needs Today*, at slide 18 (Dec. 7, 2009), [http://www.openinternet.gov/workshops/docs/ws\\_tech\\_advisory\\_process/claffy%20fcc\\_bp\\_dec2009.pdf](http://www.openinternet.gov/workshops/docs/ws_tech_advisory_process/claffy%20fcc_bp_dec2009.pdf) (outlining circumstances in which “packet shaping” would be appropriate).

<sup>26</sup> Comments of National Cable & Telecommunications Association, GN Docket No. 09-191, at 45-47 (Jan. 14, 2010); Comments of New America Foundation, GN Docket No. 09-191, at 2-3, Report at 16 (Jan. 14, 2010) (“New America Foundation Comments”); Comments of

Each of these instances simply demonstrates consumer demand at work: given the competitive marketplace for wireless which the Commission has acknowledged, should there be a demand for an application, the market will deliver it.<sup>27</sup> Moreover, as wireless providers gain additional capacity to respond to bandwidth-intensive applications, the natural progression will be for wireless broadband networks to be able to handle such applications, consistent with the need to provide quality service to all customers.<sup>28</sup> Finally, some commenters assert more general allegations of harm.<sup>29</sup> These general claims, however, are merely speculative and fail to point to any concrete, verified harm the proposed rules would be designed to address. Such speculative harms offer no basis for the Commission to reverse its deregulatory course.

Other commenters continue to rely on outdated claims of harm made by Skype Communications S.A.R.L. (“Skype”) and Professor Tim Wu of Columbia University.<sup>30</sup> As an initial matter, mere speculation is insufficient to justify the dramatic policy shift represented by

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Sling Media, Inc., GN Docket No. 09-191, at 4-11 (Jan. 14, 2010); Comments of Vonage Holdings Corp., GN Docket No. 09-191, at 9, 31 (Jan. 14, 2010).

<sup>27</sup> CTIA has recently detailed the evolution of the competitive wireless marketplace which has come to offer a vast array of applications under a light regulatory touch. *See* Letter from Christopher Guttman-McCabe, Vice President, Regulatory Affairs, CTIA—The Wireless Association, to Ms. Marlene Dortch, Secretary, Federal Communications Commission, GN Docket No. 09-191 (Feb. 5, 2010); Letter from Christopher Guttman-McCabe, Vice President, Regulatory Affairs, CTIA—The Wireless Association, to Ms. Marlene Dortch, Secretary, Federal Communications Commission, RM-11361, WT Docket No. 09-66 (July 15, 2009).

<sup>28</sup> *See* Cecilia Kang, *AT&T won't block Slingbox video application for iPhone*, The Washington Post (Feb. 4, 2010), [http://voices.washingtonpost.com/posttech/2010/02/att\\_no\\_longer\\_blocks\\_slingbox.html](http://voices.washingtonpost.com/posttech/2010/02/att_no_longer_blocks_slingbox.html) (explaining that AT&T has relaxed limitations on this application).

<sup>29</sup> Comments of Netflix, Inc., GN Docket No. 09-191, at 6 (Jan. 14, 2010); Open Internet Coalition Comments at 14, 77-82 (Jan. 14, 2010); Comments of Jason Najera, GN Docket No. 09-191, at 1 (Jan. 13, 2010).

<sup>30</sup> *See, e.g.*, New America Foundation Comments at 2 (citing Professor Wu’s paper and Skype’s 2007 Petition in support of its assertion that “[i]t is well-established that the major commercial wireless broadband carriers engage in a number of practices that may be violations of the Commission’s Internet Policy Statement”).

the proposed rules.<sup>31</sup> More importantly, the harms predicted by Skype and Professor Wu were completely unfounded and have never come to pass. Rather, contrary to the dire predictions, and as stated in Section II, *infra*, the wireless marketplace has continued to innovate and respond to consumer demands – including demands for openness – without the need for government regulation. CTIA addressed both the Skype and Professor Wu assertions in separate filings.<sup>32</sup>

In February 2007, Professor Wu published a working paper for the New America Foundation titled “Wireless Net Neutrality: Cellular *Carterfone* and Consumer Choice in Mobile Broadband.”<sup>33</sup> This paper predicted an unsettling future for the wireless market, asserting that the wireless market was non-competitive and that consumers could only be served through a litany of new regulation. Participants in this proceeding rely on Professor Wu’s paper and his vision of the future of wireless services to support their arguments in favor of net neutrality regulation.<sup>34</sup> However, Professor Wu’s predictions about the wireless ecosystem never came to

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<sup>31</sup> See *FCC v. Fox Television Stations, Inc.*, 129 S. Ct. 1800, 1810-11 (2009) (agency must “articulate a satisfactory explanation for its action” by proffering a “more detailed justification” where it adopts new policy that “rests upon factual findings that contradict those which underlay its prior policy” or where its departure disrupts “prior policy [that] has engendered serious reliance interests.”); *Verizon Tel. Cos. v. FCC*, 570 F.3d 294, 301 (D.C. Cir. 2009) (“If the FCC changes course, it ‘must supply a reasoned analysis’ establishing that prior policies and standards are being deliberately changed.”) (citation omitted).

<sup>32</sup> CTIA – The Wireless Association®, *Updating Assumptions: Reviewing Tim Wu’s Wireless Net Neutrality Working Paper Three Years Later*, attached to Letter from Christopher Guttman-McCabe, CTIA to Marlene H. Dortch, Federal Communications Commission, GN Docket No. 09-191 and WC Docket No. 07-52 (Feb. 5, 2010) (attached as Attachment A); Letter from Christopher Guttman-McCabe, CTIA, to Marlene H. Dortch, Federal Communications Commission, RM-11361 (July 15, 2009) (“CTIA Skype Rebuttal Ex Parte”), attached as Attachment B.

<sup>33</sup> Tim Wu, New America Foundation, Working Paper No. #17, *Wireless Net Neutrality: Cellular Carterfone and Consumer Choice in Mobile Broadband* (Feb. 2007) (“Wu Paper”), available at [http://www.newamerica.net/files/WorkingPaper17\\_WirelessNetNeutrality\\_Wu.pdf](http://www.newamerica.net/files/WorkingPaper17_WirelessNetNeutrality_Wu.pdf) (last visited Apr. 6, 2010).

<sup>34</sup> See New America Foundation Comments at 3 (citing Wu in support of the assertion that “[c]arriers use these practices to leverage their position as Internet access providers to stifle or distort competition and innovation in the adjacent markets for communications equipment, applications and Internet services”); Comments of Google Inc., GN Docket No. 09-191, at 79

pass. Instead, every element of the wireless ecosystem has seen considerable innovation and development, and competition has only increased. As such, Professor Wu’s central argument – that regulation is necessary to deter consumer-unfriendly behavior – is clearly false. Rather, market forces have continued to benefit consumers through increased innovation and competition.

In its recently-filed paper “Updating Assumptions: Reviewing Tim Wu’s Wireless Net Neutrality Working Paper Three Years Later,” CTIA catalogued the completely inaccurate predictions of doom described by the professor in his paper. CTIA detailed the explosion in the entire wireless ecosystem that has eviscerated virtually every prediction in Professor Wu’s paper.<sup>35</sup> For example, Professor Wu asserted that carriers had a “near lock” on the retailing of mobile devices, that the U.S. market had only a “small fraction” of the devices available elsewhere, that the application market was “stalled,” that carriers had improper control over handset design, and that the “oligopoly” in handset sales resulted in the crippling of consumer friendly capabilities such as Bluetooth and Wi-Fi.<sup>36</sup> As noted in CTIA’s rebuttal and in Section II, *infra*, nothing could be further from the truth. Numerous retailers sell wireless devices directly to consumers, the number of devices manufactured for the U.S. market continues to grow (more than 630 different devices, produced by more than 30 different manufacturers), the applications market is exploding (more than 240,000 applications available for wireless devices),

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(Jan. 14, 2010) (“Google Comments”) (citing another Wu publication from 2007 to support charges that “[w]ireless carriers also have a recent history in engaging in discriminatory and anticompetitive activities”).

<sup>35</sup> CTIA – The Wireless Association®, *Updating Assumptions: Reviewing Tim Wu’s Wireless Net Neutrality Working Paper Three Years Later*, attached to Letter from Christopher Guttman-McCabe, CTIA to Marlene H. Dortch, Federal Communications Commission, GN Docket No. 09-191 and WC Docket No. 07-52 (Feb. 5, 2010) (attached as Attachment A).

<sup>36</sup> *Id.* at 2-4.

carriers and industry groups are developing open network platforms, and handsets contain numerous capabilities, including those Professor Wu labeled as “crippled.”<sup>37</sup> These developments not only prove the inaccuracy of Professor Wu’s predictions, but they also cast a spotlight on the danger of regulation based on speculation.

In the three years since his filing, the wireless ecosystem has evolved dramatically. As the second generation wireless networks evolved from the 2006 model on which Professor Wu based his paper, everything addressed by his paper has changed. Everything.

<b>COMPETITION AND HANDSETS</b>	
What Professor Wu Predicted in 2007	<ul style="list-style-type: none"> <li>• “[I]t is <i>de facto</i> necessary to obtain the permission of the carrier to market a wireless device in the United States. That fact creates an important bottleneck on innovation and product diversity. To make it to market, any device must ‘fit’ with the business plans of the major carriers. . . . The major carriers have a near-lock on the retailing of mobile wireless devices in the United States.”<sup>38</sup></li> </ul>
What CTIA Predicted in 2007	<ul style="list-style-type: none"> <li>• “This is not a market that is broken. There are about 160 licensees providing mobile wireless services and more competitors are on the way . . . There are numerous handset manufacturers and network equipment providers. There are also countless content providers.”<sup>39</sup></li> </ul>
The State of the Market in 2010	<ul style="list-style-type: none"> <li>• More than 630 unique wireless devices are manufactured for the U.S. market, and U.S. consumers have access to the most advanced handsets in the world. In the last two years, some of the most advanced handsets have been launched in the U.S. including the Apple iPhone 3G,<sup>40</sup> Apple iPhone 3GS,<sup>41</sup> HTC’s G1,<sup>42</sup> T-Mobile</li> </ul>

<sup>37</sup> *Id.*

<sup>38</sup> Wu Paper at 7.

<sup>39</sup> Opposition of CTIA – The Wireless Association®, RM-11361, at iv (filed April 30, 2007) (“CTIA Skype Opposition”).

<sup>40</sup> See Press Release, AT&T, AT&T to Offer iPhone 3G S on June 19 (June 8, 2009), available at <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=26853>.

<sup>41</sup> See Press Release, AT&T, AT&T to Offer Next-Generation iPhone on Its High-Performance 3G Network (June 18, 2009), available at <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=26868>.

	<p>MyTouch 3G,<sup>43</sup> four Research in Motion BlackBerry devices (BlackBerry Storm, BlackBerry Bold, BlackBerry Pearl Flip and BlackBerry Curve 8900),<sup>44</sup> Samsung Instinct,<sup>45</sup> the Palm Pre,<sup>46</sup> and the Google Nexus One.<sup>47</sup> The U.S. marketplace is leading the world. There is a vast range of retail options for the purchase of a mobile phone including large and small retail stores as well as directly from handset manufacturers.<sup>48</sup></p>
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<b>MOBILE DEVICE DESIGN</b>	
<p>What Professor Wu Predicted in 2007</p>	<ul style="list-style-type: none"> <li>• Professor Wu alleged that “American wireless carriers are wielding a heavy hand in the design of mobile devices,” “crippling” features such as web access, Bluetooth, and Wi-Fi.<sup>49</sup> Carriers create technical barriers to mobile phones from network to network.<sup>50</sup></li> </ul>

<sup>42</sup> See Martyn Williams and James Niccolai, T-Mobile's Android-based G1 goes on sale (Oct. 22, 2008), *available at* [http://www.computerworld.com/action/article.do?command=viewArticleBasic&taxonomyName=mobile\\_and\\_wireless&articleId=9117740&taxonomyId=15&intsrc=kc\\_top](http://www.computerworld.com/action/article.do?command=viewArticleBasic&taxonomyName=mobile_and_wireless&articleId=9117740&taxonomyId=15&intsrc=kc_top) (last visited Sept. 24, 2009).

<sup>43</sup> See Press Release, T-Mobile, [http://www.t-mobile.com/company/PressReleases\\_Article.aspx?assetName=Prs\\_Prs\\_20090622&title=T-Mobile%20USA%20Unveils%20the%20T-Mobile%20myTouch%203G%20with%20Google%20Featuring%20Personalization%20Front%20and%20Center](http://www.t-mobile.com/company/PressReleases_Article.aspx?assetName=Prs_Prs_20090622&title=T-Mobile%20USA%20Unveils%20the%20T-Mobile%20myTouch%203G%20with%20Google%20Featuring%20Personalization%20Front%20and%20Center).

<sup>44</sup> See BlackBerry, *Smartphones*, *available at* <http://na.blackberry.com/eng/devices/> (last visited Sept. 29, 2009).

<sup>45</sup> See Press Release, Sprint, Samsung Instinct(TM), Exclusively from Sprint, Brings Speed, Simplicity and a Fully Integrated Touch-Screen Experience to Wireless Marketplace (April 1, 2008), *available at* [http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle\\_newsroom&ID=1124417](http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle_newsroom&ID=1124417).

<sup>46</sup> See Press Release, Sprint, Sprint to Offer Palm Pre Nationwide on June 6 (May 19, 2009), *available at* [http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle\\_newsroom&ID=1289761](http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle_newsroom&ID=1289761).

<sup>47</sup> Nexus One Phone, Google.com *at* <http://www.google.com/phone> (last accessed Jan. 14, 2010).

<sup>48</sup> See, e.g., *id.*; see also Nokia Online Store U.S. *at* [http://store.nokia.com/webapp/wcs/stores/servlet/shophome\\_10500\\_10101\\_-1](http://store.nokia.com/webapp/wcs/stores/servlet/shophome_10500_10101_-1) (last accessed Jan. 12, 2010).

<sup>49</sup> Wu Paper at 9-12.

<sup>50</sup> *Id.* at 8-9.

<p>What CTIA Predicted in 2007</p>	<ul style="list-style-type: none"> <li>• “A host of carriers – including AT&amp;T Mobility – offer other phones with integrated Wi-Fi access. . . . So although one particular handset may have had a capacity disabled, many other devices with that same capability are available on the market from the major wireless carriers, including the same carriers highlighted by Skype.”<sup>51</sup></li> <li>• “While some carriers have opted to define a set of services for use on their wireless data network, others have maintained a liberal policy allowing customers some flexibility to use the network moderately as they see fit.”<sup>52</sup></li> </ul>
<p>The State of the Market in 2010</p>	<ul style="list-style-type: none"> <li>• Web access, Bluetooth, and Wi-Fi are available on a dizzying array of devices, literally hundreds. Many carriers have extensive open network development platforms for devices and software. Absent contractual and technology restrictions, customers are generally free to move their phones from carrier to carrier. Handsets available today include a broad array of varying functions, allowing U.S. consumers to choose the capabilities they desire based on solely on price and intended use.</li> </ul>

<b><u>MOBILE APPLICATIONS</u></b>	
<p>What Professor Wu Predicted in 2007</p>	<ul style="list-style-type: none"> <li>• “[T]he carriers have not helped in fostering a robust applications market. In fact, they have imposed excessive burdens and conditions on application entry in the wireless application market, stalling what might otherwise be a powerful input into the U.S. economy. In the words of one developer, ‘there is really no way to write applications for these things.’ The mobile application environment is today, in the words of one developer, ‘a tarpit of misery, pain and destruction.’”<sup>53</sup></li> </ul>
<p>What CTIA Predicted in 2007</p>	<ul style="list-style-type: none"> <li>• “[T]he market for wireless handset applications is vibrant, competitive, and open to any developer willing to program within a handset’s limitations.”<sup>54</sup></li> <li>• “Consumers are not being denied access to the applications they desire, and are free to purchase handsets capable of running the applications they desire, so long as they are not harmful to the network in violation of their terms and conditions of service. The</li> </ul>

<sup>51</sup> CTIA Skype Opposition at 18-19.

<sup>52</sup> *Id.* at 21.

<sup>53</sup> Wu Paper at 2.

<sup>54</sup> CTIA Skype Opposition at 20.

	services and applications that consumer desire change regularly, and the competitive wireless industry changes to match those desires.” <sup>55</sup>
The State of the Market in 2010	<ul style="list-style-type: none"> <li>• Apple iPhone, the Android system, Palm, Blackberry, Nokia and Windows Mobile offer applications stores for wireless devices, which consumers have enthusiastically embraced. There are now more than 240,000 applications available to wireless consumers that were not available when Skype filed its petition. Wireless carriers are also working to develop applications to specifically address critical national priorities, such as health care, energy efficiency, and smart transportation. There has been a massive industry shift toward open architecture and development.</li> </ul>

Net neutrality supporters similarly rely heavily on Skype’s 2007 Petition that sought the adoption of rules requiring competitive wireless carriers to cede management over the design, operation, and management of their networks and services.<sup>56</sup> Skype, both in its 2007 Petition and in its initial comments in this docket, suggests that adoption of its proposed rules would result in a “vibrant, consumer-centric wireless market in which all parts of the wireless ecosystem thrive[] and where consumers and edge providers of applications and devices had a measure of confidence that they could reach users without being limited by network operators acting as gatekeepers.”<sup>57</sup> Further, in the current proceeding, Skype argues that its 2007 Petition “shares core ideas” with the Commission’s *Open Internet NPRM*<sup>58</sup> – a view embraced by other parties that repeat allegations similar to those made by Skype in support of net neutrality

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<sup>55</sup> *Id.* at 2-3.

<sup>56</sup> Petition to Confirm a Consumer’s Right to Use Internet Communications Software and Attach Devices to Wireless Networks, Skype Communications S.A.R.L., RM-11361 (filed Feb. 20, 2007) (“*Skype Petition*”).

<sup>57</sup> See Comments of Skype Communications S.A.R.L., GN Docket No. 09-191, at 3-4 (Jan. 14, 2010) (“*Skype Comments*”). In the *Skype Petition*, Skype argued that its proposed regulations were necessary to “unlock[] a vast new source of price competition and innovation for wireless users.” *Skype Petition* at 30.

<sup>58</sup> *Skype Comments* at 4.

regulation.<sup>59</sup> The truth, however, is that Skype's proposed regulations were unnecessary in 2007 and are even more inappropriate today in light of the exponential growth of demand for wireless services, diversity of wireless devices, and availability of wireless applications including the over 100 devices for which Skype is available.<sup>60</sup> Just as CTIA predicted in 2007, the wireless marketplace has evolved to provide consumers with even greater choice, in the absence of any regulatory direction by the Commission.<sup>61</sup>

Indeed, in its Petition, Skype argued that wireless carriers were limiting the ability of subscribers to operate wireless devices and run applications of their choosing<sup>62</sup> and that only regulation could "liberate software innovation and free equipment manufacturers from

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<sup>59</sup> See, e.g., New America Foundation Comments at 2 ("It is well-established that the major commercial wireless broadband carriers engage in a number of practices that may be violations of the Commission's Internet Policy Statement. . . . Skype, in its petition, highlighted how carriers prohibit or seek to block Voice over IP applications in order to protect or boost revenue from their own voice application services.") (footnote omitted); Comments of Vonage Holdings Corp., GN Docket No. 09-191, at 31 (Jan. 14, 2010) ("Similar to the wireline market at the time of the *Carterfone* decision, wireless network operators today dictate which devices, applications, and services can be used over the network. As a result, compared to the rest of the world, the United States device market has fewer choices, and in many cases, the network operators in the United States disable advanced features on the devices that are available in other markets. Application of the 'any device' principle to wireless broadband providers will likewise unleash innovation and competition in the wireless market, reduce the ability of carriers to engage in anti-consumer handset exclusivity contracts, and open the mobile Internet to a new wave of innovation and growth."); Comments of the National Association of Telecommunications Officers and Advisors ("NATOA") and the Benton Foundation, GN Docket No. 09-191, at 11 (Jan. 14, 2010) ("If the Commission's Open Internet rules are not extended to this growing segment of Internet use, the rules will be weakened and undercut by the presence of discrimination and anti-competitive practices on wireless networks. The benefits of an open Internet will be lost to millions of American consumers and to the entrepreneurs and innovators who seek to serve them over wireless platforms.").

<sup>60</sup> CTIA highlighted the consumer-oriented, vibrant state of the wireless market and the inaccuracy of Skype's prognostications in a 2009 filing with the Commission. See Letter from Christopher Guttman-McCabe, CTIA, to Marlene H. Dortch, Federal Communications Commission, RM-11361 (July 15, 2009) ("CTIA Skype Rebuttal Ex Parte"), attached as Attachment B.

<sup>61</sup> See Opposition of CTIA – The Wireless Association®, RM-11361 (Apr. 30, 2007) ("*CTIA Opposition*"). See also CTIA Skype Rebuttal Ex Parte.

<sup>62</sup> See generally *Skype Petition*.

unreasonable control by carriers.”<sup>63</sup> Skype also pointed to purported examples of anticompetitive behavior by carriers and alleged that consumers would be unable to attach non-harmful devices to wireless networks unless the Commission intervened.<sup>64</sup> CTIA, meanwhile, noted the robust competition in the markets for devices and wireless service, that there was a vibrant and evolving market for mobile applications, and that device manufacturers were making innovative features available to consumers.<sup>65</sup> CTIA also predicted – correctly – that this innovation and competition would continue to grow and benefit consumers in the absence of regulation.

In sum, over the past three years and in the absence of regulation, none of Skype’s dire predictions has come to fruition. Rather, there has been exponential growth in wireless subscribership, coupled with increasing consumer satisfaction.<sup>66</sup>

#### **What Was Said in the Past**

- In its Petition for Rulemaking in February 2007, **Skype** argued that wireless carriers were limiting the ability of subscribers to operate wireless devices and run software applications of their choosing.<sup>67</sup> **CTIA**, by contrast, asserted that the wireless industry was robustly competitive, with multiple wireless providers competing in every market and numerous equipment manufacturers providing devices to those providers.<sup>68</sup>
- **Skype** pointed to purported examples of wireless carriers’ disabling access to Wi-Fi functionality,<sup>69</sup> locking devices to a particular operator,<sup>70</sup> favoring a proprietary network

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<sup>63</sup> *Id.* at 6.

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

<sup>65</sup> *See generally CTIA Opposition.*

<sup>66</sup> CTIA Skype Rebuttal Ex Parte at 3.

<sup>67</sup> *See generally Skype Petition.*

<sup>68</sup> *See generally CTIA Opposition.*

<sup>69</sup> *See Skype Petition* at 14-15.

model over open development platforms,<sup>71</sup> and adopting allegedly restrictive terms of service limitations on connections to the wireless network.<sup>72</sup> Skype argued that, without Commission regulation, consumers would be unable to attach non-harmful devices to wireless networks.<sup>73</sup> CTIA noted that there were any number of Wi-Fi enabled handsets at the time – contrary to Skype’s assertion that Wi-Fi had been “crippled” by the wireless industry.<sup>74</sup> CTIA also demonstrated that carriers’ customer service agreements vary significantly with respect to the terms and conditions governing the connection of devices to their networks.<sup>75</sup>

- **Skype** argued that, without Commission regulation, consumers would be unable to run the applications of their choosing.<sup>76</sup> According to Skype, regulation was essential in order to “liberate software innovation and free equipment manufacturers from unreasonable control by carriers....”<sup>77</sup> CTIA provided evidence of the vibrant, open and evolving market for software applications on wireless devices.<sup>78</sup>

### **What has Happened**

- No dire results have occurred. Since February 2007, the wireless industry has continued to experience explosive subscriber growth (adding more than 40 million subscribers) while the price per minute for wireless service in the United States is the lowest of any of the 26 OECD countries measured. The level of consumer satisfaction also continues to improve. Consumer Reports, the magazine that is the flagship property of the wireless industry’s harshest critic, Consumers’ Union, said in its January 2009 issue that “[o]verall, cell-phone service has become significantly better,” and that “[s]ixty percent of readers were either completely or very satisfied with their service.”<sup>79</sup>

<sup>70</sup> *Id.* at 16-17.

<sup>71</sup> *Id.* at 19-20.

<sup>72</sup> *Id.* at 18-19.

<sup>73</sup> *Id.*

<sup>74</sup> *See CTIA Opposition* at 2.

<sup>75</sup> *Id.* at 21-22.

<sup>76</sup> *See Skype Petition* at 2.

<sup>77</sup> *Id.* at 6.

<sup>78</sup> *See CTIA Opposition* at 21-22.

<sup>79</sup> “Best Cell Phone Service”, Consumer Reports, Jan. 2009 *available at* <http://www.consumerreports.org/cro/electronics-computers/phones-mobile-devices/phones/cell-phone-service-providers/cell-phone-service/overview/cell-phone-service-ov.htm> (last accessed Apr. 6, 2010).

- In addition, mobile broadband offerings have expanded greatly, including in rural areas, and numerous carriers have announced plans to deploy next generation wireless broadband networks greatly surpassing the capabilities of existing networks.<sup>80</sup> Wireless carriers have established new calling plans, expanding the voice and data capabilities available to wireless subscribers at ever lower prices.<sup>81</sup> More than 630 unique wireless devices are manufactured for the U.S. market. Contrary to what Skype predicted, there are now 29 devices with integrated Wi-Fi capability with many more on the way.<sup>82</sup>

<sup>80</sup> See, e.g., “Bluegrass Cellular Announces New 3G Coverage In Cumberland County,” Press Release, Apr. 22, 2009, *available at* [http://bluegrasscellular.com/about/news/bluegrass\\_cellular\\_announces\\_new\\_3g\\_coverage\\_in\\_cumberland\\_county](http://bluegrasscellular.com/about/news/bluegrass_cellular_announces_new_3g_coverage_in_cumberland_county) (publicizing Bluegrass Cellular’s decision to add 3G high speed data service coverage to Burkesville, KY); “Cellular South to Expand Availability of Advanced 3G Mobile Broadband Services Throughout Much of Mississippi; Next Generation Wireless Gives Customers Faster Internet Connections, New High-Speed Data Services and Multimedia Applications,” Cellular South Press Release, Mar. 10, 2009, *available at* <https://www.cellularsouth.com/news/2009/20090310.html> (noting plan to introduce 3G service in 78 cities in the second and third quarters of 2009); “Stelera Wireless Launches Wireless Broadband Network; Cutting Edge Internet Services Launched In South Texas,” Press Release, Mar. 23, 2009, *available at* <http://dev.stelerawireless.com/Portals/0/docs/National%20STX%20Press%20Release.docx> (touting its use of HSPA to build “a network optimized for the broadband experience”).

<sup>81</sup> See, e.g., “Verizon Wireless Introduces New Unlimited Plans That Are as Worry Free as the Guarantee,” Press Release, Feb. 19, 2008, *available at* <http://news.vzw.com/news/2008/02/pr2008-02-19.html> (announcing \$99.99 Nationwide Unlimited Anytime Minute Plans, and enhanced BroadbandAccess Plans offering 50 MB a month for \$39.99 or 5 GB a month for \$59.99); “Cricket Wireless Offers Unlimited Data for \$35 a Month, Look Ma, No Cap,” Engadget Mobile, Mar. 23, 2008, *available at* <http://www.engadgetmobile.com/2008/03/23/cricket-wireless-offers-unlimited-data-for-35-a-month-look-ma/>; Phil Goldstein, “AT&T unveils \$3 per day unlimited GoPhone calling plan,” Fierce Wireless, May 8, 2009, *available at* <http://www.fiercewireless.com/story/t-unveils-3-day-unlimited-gophone-calling-plan/2009-05-08> (announcing AT&T Mobility’s decision to launch a new calling plan through its prepaid GoPhone service, which will “give users unlimited calling with no roaming or long distance fees for \$3 per day...customers using this new plan will also be able to get text messaging and data service at the same pay-per-use rates as all other GoPhone ‘Pay As You Go’ plans”).

<sup>82</sup> CTIA Research as of April 6, 2009 and includes devices with Wi-Fi and/or UMA capability; *see also* “Sprint’s Blackberry Tour to sprout WiFi Next Year”, FierceWireless *available at* <http://www.fiercewireless.com/story/sprints-blackberry-tour-sprout-wifi-next-year/2009-07-09> (last accessed Apr. 6, 2010).

Further, counter to Skype's prediction, at least 54 unlocked handsets are currently available through third-party and manufacturer websites.<sup>83</sup>

- Counter to Skype's prediction about the lack of innovation in the application space, growth of wireless software applications has been even more pronounced. Apple iPhone, the Android system, Palm, Blackberry, Nokia and, shortly, Windows Mobile offer applications stores for wireless devices, which consumers have enthusiastically embraced.<sup>84</sup> There are now more than 240,000 applications available to wireless consumers that were not available when Skype made its dire prediction.
- Even the Skype application, whose availability and adoption Skype argued would languish in the absence of regulatory intervention, is now available for more than 100 wireless devices according to Skype's own website.<sup>85</sup> And Skype recently released a version of its application compatible with Windows Mobile 5.0 that should greatly expand the number of wireless devices on which the application is accessible.<sup>86</sup>
- Further, contrary to Skype's prediction, carriers continue to evolve their service offerings, and their terms and conditions, to match consumer demands and to take advantage of new network and handset capabilities.

Moreover, the wireless industry continues to innovate to the benefit of consumers. In fact, at CTIA's October 2009 CTIA WIRELESS IT& Entertainment® show in San Diego, CA, AT&T

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<sup>83</sup> Comments of CTIA – The Wireless Association®, WT Docket No. 09-66, at 34 (June 15, 2009).

<sup>84</sup> See e.g., “Android | Market” at <http://www.android.com/market/> (providing an overview of the available applications for Android phones); Palm Software, [http://software.palm.com/us/html/top\\_products\\_treo.jsp?device=10035300025](http://software.palm.com/us/html/top_products_treo.jsp?device=10035300025) (detailing the kind of software that can run on a Palm phone); Blackberry App World, <http://na.blackberry.com/eng/services/appworld/?> (listing all available applications for BlackBerry devices); “Skype 2.5 for Windows Mobile” at <http://www.skype.com/download/skype/windowsmobile/> (demonstrating Skype's ability to utilize the Windows Mobile platform).

<sup>85</sup> See Skype, <http://www.skype.com/download/skype/mobile/> (last accessed July 15, 2009).

<sup>86</sup> See <http://www.skype.com/intl/en/download/skype/windowsmobile/> (last accessed July 6, 2009). The explosive growth in wireless applications belies claims made in 2007 by Skype and its supporters that mandating the *Carterfone* regime on the wireless market was necessary because carriers “have imposed excessive burdens and conditions on application entry in the wireless application market, stalling what might otherwise be a powerful input into the U.S. economy.” Tim Wu, “Wireless Net Neutrality: Cellular *Carterfone* on Mobile Networks,” New America Foundation, Working Paper #17, at 2 (Feb. 2007). As Chairman Genachowski correctly observed last week, today's marketplace is “brimming with thousands of apps that have unleashed new waves of creativity and innovation ....” Remarks of Chairman Julius Genachowski to the Staff of the Federal Communications Commission, at 2 (June 30, 2009).

announced that it would begin to allow VoIP applications on the iPhone to use the AT&T mobile data network.<sup>87</sup> And more recently, Verizon Wireless and Skype announced the Skype mobile™ product that will enable Verizon Wireless smartphone users to make calls to Skype users around the globe.<sup>88</sup> This most recent announcement highlights the considerable innovation, as well as the convergence between mobile broadband access and content providers, that has taken place in recent years, all without Commission intervention. Time, therefore, has validated CTIA's assessment of the wireless market and discredited the view espoused by Skype and its supporters both in 2007 and in this proceeding that regulation – and not competition – is essential to wireless innovation and investment.

## **II. FROM A POLICY PERSPECTIVE, THE WIRELESS ECOSYSTEM IN THE UNITED STATES IS THE ILLUSTRATION OF WHAT COMPETITION BRINGS – INNOVATION AND INVESTMENT.**

Two critical truths have emerged from recent proceedings before the Commission concerning the wireless market.<sup>89</sup> First, the Commission's deregulatory approach to wireless has resulted in considerable innovation in devices, wireless networks, applications, and pricing plans. The Commission should not adopt prescriptive rules that would stifle this innovation. Second, in the absence of onerous regulation, competition already has ensured and will continue to ensure that the market will meet the demands of consumers desiring greater openness with

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<sup>87</sup> Press Release, AT&T, AT&T Extends VoIP to 3G Network for iPhone (Oct. 6, 2009), *available at* <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=27207&mapcode=Wireless>.

<sup>88</sup> Press Release, Verizon Wireless, Verizon Wireless And Skype Join Forces To Create A Global Mobile Calling Community (Feb. 16, 2010), *available at* <http://news.vzw.com/news/2010/02/pr2010-02-15b.html>.

<sup>89</sup> See *Fostering Innovation and Investment in the Wireless Communications Market*, GN Docket No. 09-157; *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless Including Commercial Wireless Services*, WT Docket No. 09-66.

regard to wireless products and services. Finally, the Commission's attempts to define network management in the constantly evolving wireless ecosystem risks setting a rigid regulatory environment that is one new device, one new service or one new application away from obsolescence – or worse, from becoming a hindrance to innovation.

**A. Recent Developments Demonstrate the Continued Innovation and Investment That Is the Wireless Industry's Hallmark**

The record in the Commission's wireless innovation proceeding demonstrated the virtuous cycle of innovation and investment that is the mobile wireless industry's trademark. Key to this virtuous cycle are the continued development of new services, enhancement of network capabilities, the roll out of new products, and the satisfaction of consumers' expectations. The wireless ecosystem continues to innovate as a result of the intense competition among participants in the wireless market, which results in job creation and investment.<sup>90</sup> There is no basis for the Commission to depart from this successful model.

Competitive pressures have prompted wireless companies to invest billions of dollars annually in the expansion and enhancement of next generation networks, which represent not a third pipe to the home, but broadband to the person, wherever and whenever they want it. And this investment and innovation continues to expand wireless broadband coverage and speeds. In recent months, Clearwire has expanded its 4G WiMAX network throughout the country and has planned deployments in Boston, New York, San Francisco, Washington, D.C., Denver, Kansas City, Minneapolis, Cincinnati, Cleveland, Los Angeles, Miami, Pittsburgh, Salt Lake City, and

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<sup>90</sup> See, e.g., Comments of CTIA – The Wireless Association, GN Docket No. 09-157, at 5-16 (Sept. 30, 2009) (“CTIA Wireless Innovation Comments”).

St. Louis.<sup>91</sup> Meanwhile, AT&T, Verizon Wireless, and Cox Communications have all announced current or future 4G deployments using Long Term Evolution (“LTE”) technology.<sup>92</sup> Carriers and manufacturers also continue to provide new services by building out and upgrading existing third-generation networks through evolutions of the HSPA and EV-DO technologies already serving U.S. wireless broadband customers. T-Mobile has begun a significant effort to upgrade its networks to HSPA+. Finally, multiple carriers have updated their networks.<sup>93</sup>

Similarly, robust competition has spurred a diverse array of mobile devices and handset features. There are currently more than 630 devices manufactured for the U.S. wireless market, far more than in other countries.<sup>94</sup> Furthermore, as smartphones continue to grow in popularity, with 31% of all handset sales in the fourth quarter of 2009 being smartphones, manufacturers are expanding the functionality of and lowering the price for smartphones which now serve more like handheld computers than traditional wireless phones. In addition to smartphones, other

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<sup>91</sup> Press Release, Clearwire, Clearwire Extends 4G Leadership in the United States (March 23, 2010), *available at* <http://newsroom.clearwire.com/phoenix.zhtml?c=214419&p=irol-newsArticle&ID=1404906&highlight=>.

<sup>92</sup> Press Release, GSMA, China Telecom, KDDI and Verizon Wireless Join the GSMA as Mobile Operators around the World Commit to LTE (Feb. 15, 2010), *available at* <http://news.vzw.com/news/2010/02/pr2010-02-13a.html>; Press Release, AT&T, AT&T Announces Plans to Open Innovation Centers to Spur Development of New-Generation Mobile and Wired Broadband Applications, Devices (Feb. 18, 2010), *available at* <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=30536&mapcode=> (“With commercial deployment of LTE scheduled to begin in 2011, AT&T’s time line aligns with industry expectations for development of the technology and widespread availability of equipment and compatible LTE mobile devices.”); Press Release, Cox Communications, Cox Successfully Demonstrates the Delivery of Voice Calling, High Definition Video Via 4G Wireless Technology (Jan. 25, 2010), *available at* <http://cox.mediaroom.com/index.php?s=43&item=469>.

<sup>93</sup> See Letter from Christopher Guttman-McCabe, Vice President, Regulatory Affairs, CTIA to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 09-51 (Feb. 12, 2010).

<sup>94</sup> See Letter from Christopher Guttman-McCabe, Vice President, Regulatory Affairs, CTIA to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 09-51, at Attachment: Handset Innovation (Aug. 14, 2009).

innovative devices have emerged. For example, Apple will soon be releasing its 3G-enabled iPad device, which will have access to the Internet and Apple's application store through either a Wi-Fi or 3G wireless connection.<sup>95</sup> The Amazon Kindle and the Barnes and Noble Nook have also been launched. These devices are just the latest examples of the explosion in demand for e-readers that connect to carriers' 3G networks.<sup>96</sup>

As the capabilities of wireless devices have expanded, the applications market has grown exponentially. These applications, which are easy to download and use, serve a variety of informational, public safety, and entertainment purposes. Six months ago, CTIA made a filing with the Commission stating that consumers had access to more than 100,000 apps. That number has more than doubled to 240,000. More than 3 billion applications have been downloaded from Apple's iTunes App Store.<sup>97</sup> In December 2009, downloads from the Android Market and the Apple App Store increased more than 22 and 50 percent, respectively, over the

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<sup>95</sup> Press Release, Apple Inc., *Apple Launches iPad: Magical & Revolutionary Device at an Unbelievable Price* (Jan. 27, 2010), *available at* <http://www.apple.com/pr/library/2010/01/27ipad.html>.

<sup>96</sup> *See, e.g.*, Jeffrey A. Trachtenberg, *Heavy Demand Delays Some Orders for Barnes & Noble e-Book Reader*, WALL ST. J., Nov. 9, 2009, *available at* <http://online.wsj.com/article/SB10001424052748703808904574523994119321648.html>; Sanjeev Ramachandran, *Sony e-reader demand skyrocketing; shipments may go beyond holidays*, DEVICE MAGAZINE, Nov. 19, 2009, *available at* <http://www.devicemag.com/2009/11/19/sony-e-reader-demand-skyrocketing-shipments-may-go-beyond-holidays/>.

<sup>97</sup> Press Release, Apple, Inc., *Apple's App Store Downloads Top Three Billion* (Jan. 5, 2010), *available at* <http://www.apple.com/pr/library/2010/01/05appstore.html>.

month of November alone.<sup>98</sup> It is projected that worldwide downloads from mobile application stores will exceed 21 billion by 2013.<sup>99</sup>

Finally, competition drives not only technological innovation, but also innovation in the provision of wireless service. Service providers continually respond to consumer needs and demands through reduced prices and enhanced service options. During the first month of 2010, Verizon Wireless, AT&T, and U.S. Cellular all reduced the price of their unlimited nationwide voice plans.<sup>100</sup> Several other providers offer the flexibility of contract-free wireless service with unlimited talk, text, and data plans.<sup>101</sup>

Consistent with the record in the Commission's wireless innovation docket, commenters in this proceeding have correctly noted the widespread innovation in the wireless ecosystem resulting from the Commission's light regulatory policies. Indeed, "Internet development over

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<sup>98</sup> Peter Farago, *Flurry Holiday 2009 Report: App Store, iPod Touch Shatter Records*, FLURRY, Dec. 28, 2009, <http://blog.flurry.com/bid/29288/Flurry-Holiday-2009-Report-App-Store-iPod-Touch-Shatter-Records>.

<sup>99</sup> Press Release, Gartner, *Gartner Says Consumers Will Spend \$6.2 Billion in Mobile Application Stores in 2010* (Jan. 18, 2010), *available at* <http://www.gartner.com/it/page.jsp?id=1282413>.

<sup>100</sup> Press Release, AT&T, *AT&T Announces New Unlimited Plans* (Jan. 15, 2010), *available at* <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=30401&mapcode=>; Press Release, Verizon, *Verizon Wireless Offers Simple, Affordable Convenience With New Unlimited Voice Plans*, Jan. 15, 2010, *available at* <http://www.prnewswire.com/news-releases/verizon-wireless-offers-simple-affordable-convenience-with-new-unlimited-voice-plans-81687552.html>; Press Release, U.S. Cellular, *U.S. Cellular Offers New Unlimited National Calling Plans*, Jan. 18, 2010, *available at* <http://www.uscellular.com/uscellular/common/common.jsp?path=/about/press-room/2010/us-cellular-offers-new-unlimited-national-calling-plans.html>.

<sup>101</sup> Press Release, Boost Mobile, *Boost Mobile to Offer Handsets on Nationwide Sprint Network with 'Monthly Unlimited' Prepaid Plan* (Jan. 7, 2010), *available at* [http://www.boostmobile.com/about/mediacenter/news\\_releases/010710\\_handsets\\_monthlyunlimited.html](http://www.boostmobile.com/about/mediacenter/news_releases/010710_handsets_monthlyunlimited.html); Press Release, MetroPCS Communications, Inc., *MetroPCS Introduces Wireless for All Nationwide Service Plans with No Hidden Taxes or Regulatory Fees* (Jan. 12, 2010), *available at* <http://investor.metropcs.com/phoenix.zhtml?c=177745&p=irol-newsArticle&ID=1373920&highlight>; <http://www.pocket.com/index.php/plans>; [http://www.mycricket.com/cell-phoneplans?utm\\_source=DEF&utm\\_medium=1&utm\\_campaign=hero0048](http://www.mycricket.com/cell-phoneplans?utm_source=DEF&utm_medium=1&utm_campaign=hero0048).

the past two decades has played a central role in maintaining America’s status as the most prosperous, most entrepreneurial and most innovative nation in the world . . . [n]one of that happened by accident. It occurred as a consequence of a regulatory climate that enabled and encouraged entrepreneurial freedom and flexibility to innovate.”<sup>102</sup> The wireless broadband marketplace “already is a vigorously competitive retail market that continues to respond swiftly and aggressively to consumer demand – including the very clear consumer demand for openness, variety, and choice” and “embodies the ‘virtuous cycle’ of innovation and growth that has been expressly cited by the Obama Administration.”<sup>103</sup>

As a result of the Commission’s long-standing, flexible, market-driven policies, the U.S. wireless ecosystem is leading the world in innovation, both in terms of the deployment of next-generation networks and in the diversity of handsets available. And, U.S. wireless web use makes up nearly 30 percent of all mobile web surfing worldwide.<sup>104</sup> The Commission should continue to allow competition, not regulatory fiat, to spur innovation and investment.

**B. Innovations in Recent Years Demonstrate a Trend Towards Openness in the Absence of Commission Regulation.**

Participants in the wireless ecosystem are not only investing billions of dollars in innovative products and services generally, but they also are innovating in a manner that promotes the openness of networks and devices.<sup>105</sup> For example, T-Mobile “specifically touts the many applications available over its Android phones in national advertising materials and

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<sup>102</sup> Comments of the Center for Individual Freedom, GN Docket No. 09-191, at 2-3 (Jan. 14, 2010).

<sup>103</sup> T-Mobile Comments at 5-6.

<sup>104</sup> CTIA Wireless Innovation Comments at 66-67.

<sup>105</sup> *See, e.g.*, Verizon Comments at 61 (“Instead, the wireless marketplace has been moving toward greater openness – driven not by regulation, but market forces and customer demands.”).

campaigns.”<sup>106</sup> AT&T offers more than 100,000 applications through the “more ‘managed’” iPhone platform,<sup>107</sup> and also recently announced the launch of five new Android devices that “will offer customers access to the ‘open’ Android Market for applications – even while customers retain the option to access the more mediated AT&T App Center.”<sup>108</sup> Verizon Wireless has launched its Open Development program, which “encourages third-party developers to produce new devices and applications that can run on Verizon’s networks” and has joined the Joint Innovation Lab, a joint venture that “will promote the development of new mobile technologies, applications, and services, with an initial focus on developing and deploying a mobile widgets platform to encourage innovative new mobile internet services.”<sup>109</sup> Sprint Nextel has stated that it “is embracing an open ecosystem that encourages application developers to use Sprint Nextel’s tools and programs to develop many applications for a wide range of Sprint devices.”<sup>110</sup> And Clearwire has “built its network on an open standard,” noting that “[o]penness is in Clearwire’s DNA.”<sup>111</sup>

As a result of the intense competition in the wireless marketplace, the market responded to demands for more openness regarding devices and applications; no regulation was necessary

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<sup>106</sup> T-Mobile Comments at 14.

<sup>107</sup> AT&T Comments at 148 n. 285.

<sup>108</sup> *Id.* at 149-150.

<sup>109</sup> Verizon Comments at 28. Under the Open Development program, “customers have the option to use any wireless device that meets the company’s published technical standards and any application the customer chooses on such devices. To facilitate development, Verizon has published technical standards, held a developer’s conference, and established a certification process for third-party devices.” *Id.* (citations omitted).

<sup>110</sup> Comments of Sprint Nextel Corporation, GN Docket No. 09-157, at 28 (Sept. 30, 2009).

<sup>111</sup> Comments of Clearwire Corporation, GN Docket No. 09-157, at 5 (Sept. 30, 2009).

to achieve this end.<sup>112</sup> As CTIA noted in its initial comments,<sup>113</sup> and as others have observed,<sup>114</sup> allowing competition to continue to drive innovation and investment is the best way to achieve the Commission’s policy goals, including preservation of an open Internet.

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<sup>112</sup> Faulhaber-Farber Paper at 29 (“Other vendors, device manufacturers and wireless carriers, saw that this met a strong customer demand and quickly changed their strategies to accommodate, and indeed facilitate development of outside applications. Carriers also now allow customers to bring their own device, including devices that the carrier does not itself sell, so long as it is compatible with the carrier’s network technology. Customers wanted more openness regarding applications and devices, and the market produced it.”).

<sup>113</sup> CTIA Comments at 26-27 (“Indeed, the Commission’s approach to the 700 MHz band demonstrates a basic tenet of competition policy: so long as consumers express a preference for and have the ability to choose open access services, competing carriers will run the risk of losing customers if they do not embrace such services themselves. The Commission expressly recognized as much in allowing the market to respond, by limiting its open access requirement to the 700 MHz C Block licenses. The market has, in fact, responded. Almost all U.S. carriers are offering an open platform for developers and customers. By limiting its mandate to C block licensees, the Commission achieved its public policy goal without the risk of unintended consequences from applying well-meaning rules, that nevertheless impede new technologies and new business models, to the industry as a whole.”) (footnotes omitted).

<sup>114</sup> *See, e.g.*, Faulhaber-Farber Paper at 29 (“This is how competitive markets work; firms that best meet the needs of customers are winners, and others emulate them if they can. The lesson here is simple: *if customers of wireless broadband providers want network neutrality, the competitive market will give it to them. There is no need for regulation.* Should the FCC impose network neutrality regulation on wireless broadband providers, it is admitting that customers don’t really want this, but the FCC is going to force it on them anyway. *Imposing wireless network neutrality is a regulatory-centric policy, not a customer-centric policy.*”) (emphasis in original); T-Mobile Comments at 14 (“In sum, the essential competitive characteristics of the wireless broadband marketplace promote and nurture openness. Neither the current performance of the marketplace, nor the direction in which it is heading, provides any basis for regulatory intervention. To the contrary, regulation is unnecessary because the industry has already embraced the precise vision of the wireless Internet ecosystem that the FCC envisions: a platform that creates endless opportunities for innovation by network and edge providers and that provides robust access for consumers to a dynamic, expanding, and exciting range of content, applications, and services.”); Verizon Comments at 60 (“Given the diversity of consumer preferences, consumer welfare is maximized when consumers are free to choose from among a range of different types of user experiences. The wireless broadband industry provides consumers a wide array of alternatives that offer varying degrees of openness with regard to the hardware and software that are available as different firms have pursued different business models. That range of choices benefits consumers, both by offering a range of options today and by allowing for the testing of alternative approaches to see which will be the most successful in meeting consumer demands in the future.”).

**III. TECHNOLOGICALLY, WIRELESS NETWORKS ARE FUNDAMENTALLY DIFFERENT THAN WIRED NETWORKS DUE TO THEIR RELIANCE ON SPECTRUM TO PROVIDE A LAST-MILE CONNECTION, THE MOBILITY OF THE CONSUMER BASE, AND THE CLOSE INTEGRATION OF DEVICES WITH THE NETWORK.**

As CTIA stated in its initial Comments and as countless participants in this proceeding have agreed, wireless broadband networks are inherently different than the wired networks for which the Commission's *Internet Policy Statement* was intended, and these differences make wireless broadband networks particularly ill-suited for the Commission's proposed regulations. The Commission itself has acknowledged this key difference, recognizing that "there are technological, structural, consumer usage, and historical differences between mobile wireless and wireline/cable networks."<sup>115</sup> The record in this proceeding affirms that finding. First, wireless networks rely on increasingly scarce spectrum resources, unlike their wired counterparts. Second, the mobile nature of the wireless consumer base creates unique challenges for network operators. Third, the integration of devices into wireless broadband networks has no counterpart in the wireline world. As a result of these technical realities, wireless network management is performed in a way that is completely different and constantly evolving to ensure a quality user experience for wireless broadband consumers. Further, the ability of wireless ecosystem participants to develop managed services has resulted in numerous innovative and highly popular product and service offerings – innovations that are threatened by the proposed rules. Commission attempts to set network management rules through regulation will always be one innovation away from obsolescence at best, and a hindrance to innovation at worst.

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<sup>115</sup> *Open Internet NPRM* at 13119 ¶ 159.

**A. Unlike Wired Networks, Wireless Networks Must Rely on Scarce Spectrum Resources.**

The initial comments in this proceeding demonstrate the numerous fundamental differences between the wired networks for which the Internet Policy Statement was drafted and the wireless networks which the Commission now seeks to regulate. In particular, wireless networks' reliance on spectrum and the mobility of wireless subscribers make the management and engineering of wireless networks different, complex and constantly evolving.

As the Commission has acknowledged, wireless networks, unlike wired networks, are reliant on access to spectrum: a resource that is finite and increasingly scarce.<sup>116</sup> Without sufficient spectrum, “we will starve mobile broadband of the nourishment it needs to thrive as a platform for innovation, job creation, and economic growth.”<sup>117</sup> CTIA and others have already stressed the importance of allocating additional spectrum for wireless broadband services. Rather than adopting net neutrality rules, the Commission should focus its energies on preserving the vibrancy of innovation in the wireless ecosystem, which, as the Commission has recognized, requires the identification and allocation of additional spectrum for wireless broadband services.<sup>118</sup>

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<sup>116</sup> See *Open Internet NPRM* at 13123 ¶ 172 (“With respect to the identification of reasonable network management practices for mobile broadband, we note that each provider has a finite amount of spectrum available to it.”).

<sup>117</sup> Julius Genachowski, Chairman, Federal Communications Commission, *Mobile Broadband: A 21<sup>st</sup> Century Plan for U.S. Competitiveness, Innovation and Job Creation* (Feb. 24, 2010) (“Genachowski New America Foundation Remarks”), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-296490A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-296490A1.pdf).

<sup>118</sup> Julius Genachowski, Chairman, Federal Communications Commission, *Broadband: Our Enduring Engine for Prosperity and Opportunity* (Feb. 16, 2010), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-296262A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-296262A1.pdf) (“Right now, the United States does not have nearly enough spectrum to meet its medium- and long-term mobile broadband needs. There may be no greater obstacle to our country having a world-leading mobile broadband infrastructure, and the economic benefits that would bring.”). See also Federal Communications Commission, *Connecting America: The National Broadband Plan* at 77 (2010) (“National Broadband Plan”) (“The growth of wireless broadband will be constrained if

In the interim, and as observed by MetroPCS, “[t]he coming deployment of next-generation technologies, such as LTE, while capacity-enhancing for carriers and groundbreaking for consumers, will only serve to fuel the exponential growth in demand for advanced wireless services and exacerbate the serious spectrum shortage.”<sup>119</sup> Indeed, it is clear that mobile broadband use has grown and will continue to grow at a rate that will outpace spectrum resources.<sup>120</sup> AT&T, for example, has reported that its mobile traffic increased 5,000 percent in the past three years.<sup>121</sup> And looking forward, Cisco predicts that global mobile data traffic will double every year through 2014, that mobile data traffic will reach 3.6 exabytes per month by 2014, and that by 2014 almost 66 percent of the world’s mobile data traffic will be video.<sup>122</sup> The explosion of mobile data use is, quite simply, “a game-changing trajectory.”<sup>123</sup> The increasing scarcity of spectrum for mobile broadband is not the only challenge faced by wireless networks, because, as observed by AT&T, “wireless providers start out with a handicap:

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government does not make spectrum available to enable network expansion and technology upgrades. . . . If the U.S. does not address this situation promptly, scarcity of mobile broadband could mean higher prices, poor service quality, an inability for the U.S. to compete internationally, depressed demand and, ultimately, a drag on innovation.”).

<sup>119</sup> MetroPCS Comments at 37.

<sup>120</sup> See Public Notice, Comment Sought on Spectrum for Broadband, NBP Public Notice #6, 24 FCC Rcd 12032, 12035 (2009) (“Moreover, Alcatel-Lucent’s representative noted that even as the telecommunications industry works to improve spectral efficiency, usage of spectrum is growing at such a rate that without additional large blocks of spectrum the industry will not be able to keep up.”).

<sup>121</sup> Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2009-2014” Cisco Systems, Inc. at 2 (Feb. 9, 2010), *available at* [http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white\\_paper\\_c11-520862.pdf](http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-520862.pdf).

<sup>122</sup> *Id.* at 1.

<sup>123</sup> Genachowski New America Foundation Remarks at 4.

Radio spectrum is capable of supporting significantly less throughput capacity than wireline infrastructure such as fiber or coaxial cable.”<sup>124</sup>

The filings in this docket demonstrate the real-world impact of these capacity constraints. As Motorola noted, “network congestion may prevent consumers from using their smartphones to enjoy fully the benefits of web access, messaging, social networking, and gaming. Continued growth of smartphone usage along with more multimedia consumption by mobile wireless users will increase the challenge for wireless operators.”<sup>125</sup> Consider also the observation made by MetroPCS regarding network congestion at the recent Consumer Electronics Show:

The frustrations and service disruptions that are caused by too many customers using too little spectrum were on full display at the recent Consumer Electronics Show in Las Vegas. AT&T customers complained of excessive wait times to perform simple tasks such as refreshing email inboxes. Even more to the point, Jason Oxman, senior vice president of the Consumer Electronics Association, was futilely attempting to tweet a response to a reporter’s question regarding spectrum shortages and the need to boost wireless networks – “The great irony is that [due to an overloaded network] I couldn’t send my tweet,” Oxman said.<sup>126</sup>

Chairman Genachowski too has acknowledged this challenge, asking, “what happens when every mobile user has an iPhone, a Palm Pre, a Blackberry Tour or whatever the next device is? What happens when we quadruple the number of subscribers with mobile broadband on their laptops or netbooks?”<sup>127</sup> While “a lot more spectrum” will be needed is the “short answer,”<sup>128</sup> the reality is that network management is and will remain critically important.

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<sup>124</sup> AT&T Comments at 163.

<sup>125</sup> Motorola Comments at 13.

<sup>126</sup> MetroPCS Comments at 37-38 (footnotes omitted).

<sup>127</sup> Prepared Remarks of Chairman Julius Genachowski to the International CTIA Wireless IT & Entertainment Show, America’s Mobile Broadband Future, at 5 (Oct. 7, 2009), *available at* [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-293891A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-293891A1.pdf).

Wireless broadband providers cannot build their way out of capacity constraints, but rather must find ways to address capacity issues.<sup>129</sup> Wireless networks have responded to this growing spectrum crisis, and indeed are the most efficient users of spectrum in the world.<sup>130</sup> The Commission’s wireless innovation proceeding highlighted the numerous efforts taken by wireless providers to increase their spectral efficiency. Wireless operators will continue “to innovate and to adapt unique methods in order to serve an ever-growing customer base with limited spectrum resources.”<sup>131</sup> In order to do so, however, wireless operators “will need the freedom to continue to engage in various network-based forms of management to ensure quality of service.”<sup>132</sup> Should the Commission “strait-jacket wireless providers with net neutrality

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<sup>128</sup> *Id.*

<sup>129</sup> *See, e.g.,* Verizon Comments at 62 (“A wireless carrier cannot readily increase capacity once it has exhausted its spectrum capacity. Thus, wireless broadband providers are left to acquire additional spectrum (to the extent available) or take measures that use their existing spectrum as efficiently as possible . . . .”) (citation omitted).

<sup>130</sup> *See* CTIA Wireless Innovation Comments at 21 (“The combination of highly efficient networks and advanced wireless devices has made U.S. carriers the most efficient users of spectrum worldwide – serving more consumers, with less spectrum, and for more minutes of use than any other country. With access to just 409.5 MHz of spectrum (which includes AWS and 700 MHz spectrum, much of which is not yet deployed, as well as 55.5 MHz of 2.5 GHz BRS spectrum), the U.S. wireless industry serves well over 270 million subscribers – more than 660,000 consumers per megahertz of spectrum. Moreover, these 660,000 customers (per megahertz) also use their service at a much higher rate than our foreign counterparts.”).

<sup>131</sup> MetroPCS Comments at 37.

<sup>132</sup> T-Mobile Comments at 21. *See also, e.g.,* MetroPCS Comments at 39 (“Wireless carriers in particular have adopted network management solutions that creatively and flexibly permit the spectrum over which their networks run to operate in the most efficient manner possible. By adopting the net neutrality provisions, and thus not allowing operators to choose business models that allow them to grow their businesses incrementally in accordance with their spectrum holdings, the Commission will reduce the industry’s ability to support continued innovation in this space.”); Comments of Ericsson Inc., GN Docket No. 09-191, at 20-21 (Jan. 14, 2010) (“Ericsson Comments”) (“Thus, as both the number of mobile broadband subscribers contending for network resources and the traffic volume per subscriber intensifies—which is the case today—management tools, like QoS, enable providers to allocate network resources in a more systematic, fair, and efficient manner that improves the overall performance of the network and availability of enhanced services for all users.”).

requirements,” it will cripple their ability to address capacity constraints<sup>133</sup> and exacerbate the shortage of capacity for mobile broadband traffic.<sup>134</sup>

**B. Unlike Wired Networks, Wireless Networks Must Respond to a Mobile User Base.**

Another unique challenge facing wireless operators is that wireless service is inherently mobile in nature, and traffic patterns are hard to predict. This difference makes applying wireline net neutrality rules to wireless platforms unworkable and improper: the technical reality of wireless networks results in unique network management challenges. Operators of mobile networks “must be allowed to deal with constantly changing traffic patterns and congestion challenges in a dynamic way that is incompatible with the proposed rules.”<sup>135</sup>

The mobile nature of wireless users creates traffic management challenges not faced by wired broadband providers. While the number of users sharing capacity in a given area on a wired broadband network is relatively fixed, “the capacity demand at any given cell site is much more variable as the number and mix of subscribers constantly change in sometimes highly unpredictable ways.”<sup>136</sup> Not only can the number of users change, but their usage can change, adding another variable to an extremely complex network management puzzle. The need for “hand off” of sessions from cell site to cell site, the need to manage interference, and the need to address issues like signal fading all create complex engineering challenges for operators of

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<sup>133</sup> See AT&T Comments at 165.

<sup>134</sup> Comments of The CDMA Development Group, GN Docket No. 09-191, at 9 (Jan. 14, 2010) (“CDG Comments”) (“Without the freedom to control the shared spectrum resource, operators will not be able to provide the quality of service that customers expect. The Commission must allow operators to manage their network and spectrum resources efficiently. Limiting carriers’ ability to respond to the unique demands of the wireless environment will exacerbate the capacity shortage now facing the industry.”).

<sup>135</sup> GSMA Comments at 15.

<sup>136</sup> Verizon Comments at 62.

wireless broadband networks. Wireless operators “have no way to anticipate how many users will be sharing the wireless network in a particular cell sector at a particular time” nor how consumers will use their services and devices, and thus face “unique challenges in predicting how much capacity should be available or will be required at a particular location because the number of users at that location can change minute by minute.”<sup>137</sup> Because network management is a “fundamental part of the day-to-day, minute-to-minute, *millisecond-by-millisecond* reality of operating a wireless network,” it is clear that “the net neutrality rules proposed in the NPRM were not written for, and are not suited for, the wireless broadband environment.”<sup>138</sup>

Further complicating matters is the fact that because the information capacity of a wireless cell site is available to all users served by that cell, a wireless user must share available bandwidth with other nearby users. Subscribers of wireline broadband services have a dedicated connection to the home, but for wireless users, service quality is contingent on the amount of capacity demanded by other nearby subscribers. A wireless broadband subscriber running an application that requires significant capacity can compromise the service quality for neighboring users. T-Mobile warned that “it only took one rogue application on T-Mobile’s network to temporarily overload facilities serving an entire city.”<sup>139</sup> Meanwhile, AT&T reported that it has

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<sup>137</sup> T-Mobile Comments at 22-23.

<sup>138</sup> AT&T Comments at 166-167 (emphasis in original).

<sup>139</sup> T-Mobile Comments at 21. T-Mobile went on to explain that “[t]hat problem arose when an independent application developer released an Android-based instant messaging application that did not create problems during the testing done by the developer in the WiFi-to-wireline broadband environment but that, because of its design, exponentially increased signaling in the wireless environment – especially as it became popular and more customers began downloading it to their smartphones. As a result, the application caused severe overload problems in certain densely populated network nodes. One study showed that network utilization of one device increased by 1,200% from this one application alone. These signaling problems caused network overload problems that affected all T-Mobile 3G users in the area.” *Id.* at 21-22.

had to reengineer certain applications for use over its network or limit use of the application to the Wi-Fi network because the application's bandwidth demands would overwhelm AT&T's network.<sup>140</sup> The examples proffered by participants in this proceeding demonstrate the complexity of network management hurdles and the intricate techniques used to prevent the user of a bandwidth-intensive application from overwhelming the wireless network and degrading service for other consumers.

In fact, in some air interface implementations, a cell's capacity is shared by all services running over the network, including both voice and data. This requires carriers to strike a careful balance between consumers' demand for data and video services with reliable and high-quality voice service. Commenters have stressed the importance of mobile broadband providers' network management techniques in striking this balance.<sup>141</sup>

Wireless networks, therefore, are "highly influenced by the radio environment, where the operating parameters are constantly changing."<sup>142</sup> As a result, a "significant amount of RF tuning and engineering expertise" is necessary "to provide even basic communications

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<sup>140</sup> See AT&T Comments at 167-168.

<sup>141</sup> See, e.g., *id.* at 161-162 ("If wireless providers were not fully empowered to manage their networks to address these performance challenges, interference with mobile broadband would not be the only harmful result. Mobile *voice* – including critical emergency service – would likewise suffer. This is not a concern with today's wireless technologies precisely *because* the network prioritizes voice service over data applications.") (emphasis in original); MetroPCS Comments at 40 ("As well, wireless voice, data and streaming video and audio will generally ride over the same spectrum and equipment, which makes the need to prioritize traffic and distinguish between types of applications important. In order to provide suitable high quality services to subscribers within this limited bandwidth, mobile wireless companies must be in a position to control the nature and extent of services subscribers may access. Otherwise, a disproportionately low number of a wireless service provider's subscribers may use the available bandwidth – to the detriment of other subscribers otherwise desiring to use the network.").

<sup>142</sup> Ericsson Comments at 17.

services.”<sup>143</sup> The wireless ecosystem is unique in its dynamism, and static rules designed for wired networks are incompatible with the unique needs of wireless networks.

**C. Unlike Wired Networks, Wireless Networks Are Integrated With the Devices Operating on Them.**

The *Open Internet NPRM* is premised on the assumption that wireless devices, like wireline devices, exist on the “edge” of the network and can be interchanged with no impact on the network itself.<sup>144</sup> As CTIA stated in its initial Comments and the record has affirmed, this assumption is inaccurate.<sup>145</sup> Wireless devices are integrated with the network and, as such, the application of the Commission’s “any device” rule to wireless would be incompatible with wireless broadband networks.

As stated above, the capacity of a cell site is shared by users in the vicinity of the cell. How network resources are consumed by the end user varies significantly, based on a range of issues, including the device used. A malfunctioning device can impair the network itself, while a

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<sup>143</sup> *Id.*

<sup>144</sup> For example, the Commission suggests that in the unlicensed Wi-Fi context, the “edge” of the network is between an unlicensed router and the device (such as a laptop) that is linked to it. *See Open Internet NPRM* at 13122 ¶¶ 165-166. (“Unlicensed wireless devices can generally attach to a local-area or personal-area network without requiring the network owner (typically a consumer) to test for whether the device is non-harmful, since this would be impractical. Typically this is accomplished by using industry standard interfaces such as a WiFi connection. We note that private sector certification programs have been established to ensure compatibility with the standards. For example, in order to advertise a product as WiFi compliant the device must undergo third-party testing in accordance with a program established by the WiFi Alliance.”).

<sup>145</sup> *See, e.g.,* Comments of the Telecommunications Industry Association, GN Docket No. 09-191, at 16 (Jan. 14, 2010) (“TIA Comments”) (“Because of the need to manage radio transmission conditions, the handset is not outside the ‘edge’ of the network, but is an integrated part of the intelligent network itself.”); AT&T Comments at 179 (“Carriers and manufacturers tend to collaborate in developing network standards, and then collaborate further to develop devices optimized to take advantage of the carrier’s specific network features and upgrades. Close integration of the network and devices operating on the network can improve spectral efficiency and give the customer a superior experience.”); GSMA Comments at 16 (“[U]nlike devices in the wireline broadband context, mobile phones are part of the mobile Internet network.”).

well-functioning device can actually improve network performance and the service available to other users.<sup>146</sup> For this reason, “carriers try to work closely with their handset partners to ensure that devices are optimized to ensure that devices are optimized to provide service over the network using the least possible bandwidth.”<sup>147</sup> And, therefore, “bring your own device” policies create uncertainty for carriers, as they must manage devices that were not optimized for their particular network and may degrade network performance. Mobile devices, as core network devices, have the potential to create interference and as such are part of the complex and ever-changing set of network management tools that ensure that one user’s device does not impair the service received by other users or the network itself.<sup>148</sup>

In fact, the integration of devices with the network is reflected in the Commission’s rules, which clearly state that wireless devices are licensed to the network operator and not to the end user. Specifically, Section 1.903(a) provides that “[s]tatements in the Wireless Radio Services must be used and operated only . . . with a valid authorization granted by the Commission.”<sup>149</sup> And Sections 1.903(c) and 22.3(b) provide that a subscriber’s authority to operate a device stems

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<sup>146</sup> See, e.g., Declaration of Grant Castle, GN Docket No. 09-191, (Jan. 14, 2010) ¶ 11, attached to T-Mobile Comments (“Castle Declaration”) (“In contrast to the wireline network, wireless networks are affected by the types of devices on the network and how they operate, because as devices communicate with the network, they consume network resources in ways that can be more or less efficient and that can affect other users more or less radically.”).

<sup>147</sup> T-Mobile Comments at 23.

<sup>148</sup> GSMA Comments at 17 (“Reducing network operator control over devices would reduce the efficiency of spectrum use and the level of coverage and quality of network service available to subscribers. Because they are core network devices, mobile handsets have the potential to create harmful interference and, unlike in the wireline context, could impact not only the user of the device, but also potentially other users on the network and users operating in other parts of the spectrum.”).

<sup>149</sup> 47 C.F.R. § 1.903(a); see also 47 C.F.R. § 22.3 (requiring a valid license to operate cellular stations).

directly from the “authorization held by the licensee providing service to them.”<sup>150</sup> Although the Commission’s rules give wireless licensees “blanket” authority to operate transmitters in their spectrum, end users are excluded from this blanket authorization. Indeed, Section 22.165 provides that a “*licensee* may operate additional transmitters at additional locations on the same channel or channel block as its existing system without obtaining prior Commission approval[,]”<sup>151</sup> but makes no mention of parallel end user rights. The Commission has also recognized the potential harmful effect a wireless device may have on the network and has required that wireless network operators control the devices on its network to prevent interference to itself and to others.<sup>152</sup>

By contrast, there is no similar network integration in the wireline context. Wired devices may be harmlessly interchanged through an industry standard interface such as an RJ-11 (telephone) or RJ-45 (Ethernet) jack, which represents a controlled access point that prevents the device from harming the network itself. An incompatible or improperly functioning device on a wireline network will only impact the consumer using the device; it will not degrade service for other users of the network. These critical differences in device attachment are ignored by the *Open Internet NPRM* and make application to wireless broadband networks inappropriate.

**D. Network Management Restrictions Will Have Particular Detrimental Impact on Innovation in the Wireless Space.**

The reality is that wireless operators, every day, engage in a complicated process to manage their networks to provide quality of service to consumers to bring the services they

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<sup>150</sup> *Id.*

<sup>151</sup> *See* 47 C.F.R. § 22.165 (emphasis added); *see also* 47 C.F.R. § 24.11(b) (“Blanket licenses are granted for each market and frequency block.”).

<sup>152</sup> 47 C.F.R. § 22.927 (“Cellular system licensees are responsible for exercising effective operational control over mobile stations receiving service through their cellular systems.”).

demand in the manner they demand. As part of that effort, wireless operators must have the ability to not only provide standard quality of service, but also to provide managed services without Commission rules in place that could undermine wireless providers' freedom to innovate.

The record in this proceeding demonstrates the diversity of creative wireless technologies and services that have been enabled by network management. In particular, commenters have highlighted the innovative business relationships that have enabled e-readers to explode in popularity among U.S. consumers. Commenters note the success of the Kindle, a device on which consumers are able to download e-books using Sprint or AT&T's 3G network, while manufacturer Amazon pays for consumers' use of the network.<sup>153</sup> Other e-readers such as Barnes & Noble's Nook and the iRex also use this model, and commenters have identified several other devices in the works that will provide content in a similar fashion.<sup>154</sup> In exchange for this subsidized wireless access, consumers' use of the wireless network is subject to limitations established by the e-reader manufacturer. As Qualcomm observed, the Commission's proposed rules are "premised on the misassumption that consumers purchase Internet access as

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<sup>153</sup> Comments of The United States Telecom Association, GN Docket No. 09-191, at 44 (Jan. 14, 2010) ("USTelecom Comments"). *See also, e.g.*, Manufacturer Coalition Comments, GN Docket No. 09-191, at 4 (Jan. 14, 2010), Comments of WCAI, GN Docket No. 09-191, at 17 (Jan. 14, 2010); MetroPCS Comments at 29; Comments of Qualcomm Incorporated, GN Docket No. 09-191, at 23 (Jan. 14, 2010) ("Qualcomm Comments")

<sup>154</sup> *See* USTelecom Comments at 44-45 ("Condé Nast – a worldwide magazine publishing company – is reportedly in talks to repurpose its content onto a new touchscreen tablet device that would move its print content onto portable reading devices. According to one report, Condé Nast envisions 'multiple versions of machines featuring large color touchscreens' that would include 'wireless connections.' Skiff, LLC, an e-reading company developed by media conglomerate Hearst Corporation, is planning a similar device and is partnering this Spring with Nextel Corp. for wireless delivery. In the gaming environment, TeliaSonera International offers gaming companies special services that provide lower-latency connections that improve the online gaming experience. Gaming companies should be able to choose to pay for these services to ensure a better consumer experience.").

such when they purchase any wireless-enabled device . . . that is simply not the case.”<sup>155</sup> Indeed, “many consumers may not want to have to buy an all-you-can-eat data plan for these devices, but will want to buy particular content or services.”<sup>156</sup> Further, as Qualcomm stated, these business models encourage bandwidth conservation, a highly desirable outcome in today’s spectrum-constrained wireless ecosystem.<sup>157</sup> The same is true for a wide range – and growing – of products that will improve Americans’ abilities to conserve energy, manage healthcare, maintain inventory, control traffic flow, and more.

However, the proposed net neutrality rules could prohibit the billing arrangements underlying these devices – a result that would clearly not be in the public interest, as evidenced by the overwhelming popularity of these wireless uses. Further, through these business models, “[c]ontent providers achieve cost-saving benefits through lower digital distribution costs, various types of network providers offer broadband support, consumer electronics providers develop new and innovative delivery platforms, and consumers gain increased access to new forms of exciting and interactive content.”<sup>158</sup> Even Amazon.com, an ardent supporter of net neutrality rules, recognizes the importance of “the development and deployment of innovative new services by broadband Internet access service providers.”<sup>159</sup> For the Commission to stifle innovation in the wireless ecosystem in this manner is clearly antithetical to its policy objectives.

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<sup>155</sup> Qualcomm Comments at 23.

<sup>156</sup> *Id.* at 24.

<sup>157</sup> *Id.* (stating that the “sponsored connectivity” model helps conserve bandwidth because consumers do not purchase “all-you-can-eat” data plans, which “by their very nature, encourage the consumption of bandwidth”).

<sup>158</sup> USTelecom Comments at 45.

<sup>159</sup> Comments of Amazon.com, GN Docket No. 09-191, at 4 (Jan. 14, 2010).

**IV. ECONOMICALLY, APPLICATION OF THE COMMISSION’S PROPOSED NET NEUTRALITY RULES TO WIRELESS COULD NEGATIVELY IMPACT THE WIRELESS BROADBAND MARKET AND HAVE ADVERSE, UNINTENDED CONSEQUENCES FOR CONSUMERS AND THE ENTIRE WIRELESS ECOSYSTEM.**

Network quality – including how wireless network providers meet consumer needs over the myriad combinations of network and device technologies – is a critical part of the competition that defines the wireless ecosystem. The transition from 2G to 3G technologies,<sup>160</sup> as well as 3G network enhancements,<sup>161</sup> brought with them a host of network management challenges. Complex network management practices played a critical role in those transitions and will remain critical to the provision of mobile broadband service as carriers build out their 4G networks. As an initial matter, 4G rollout is just beginning and the full extent of engineering and network management challenges posed by these new platforms remains to be seen.<sup>162</sup> Further, as 4G networks evolve, all transmissions, including voice transmissions, will take the form of IP packets that appear to be “data.”<sup>163</sup> To ensure that latency-sensitive voice services are properly prioritized, it is critical that 4G network operators have the flexibility to respond to

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<sup>160</sup> AT&T Comments at 169-170 (“For example, when AT&T converted its 850 MHz spectrum to 3G, it immediately experienced a 30 percent increase in traffic because the superior propagation characteristics of the repurposed spectrum expanded in-building 3G coverage, which led to an immediate increase in usage.”).

<sup>161</sup> T-Mobile Comments at 24 (“T-Mobile has moved quickly to deploy HSPA 7.2 on its 3G network . . . [t]his new deployment means new usage patterns, new possibilities for congestion, and new potential vulnerabilities and security risks.”).

<sup>162</sup> *See, e.g.*, AT&T Comments at 169 (“The need for flexibility – and protection from regulatory second-guessing – will actually *increase* with the transition to 4G platforms. . . . In other words, the problems that may develop are unknown, the types of network management that may be needed are unknown, and the types of efficient network management that are even technologically *possible* are still largely unexplored.”) (emphasis in original); Verizon Comments at 65 (“[T]he nature of the technical and operational challenges that will be posed by new 4G networks – and what network management practices might be needed – is inherently unknown at this point.”).

<sup>163</sup> AT&T Comments at 162.

these new challenges – challenges that will change and evolve with each new application, handset, and consumer.<sup>164</sup> Attempting to define network management in the context of constantly evolving wireless networks, services, devices, and applications is an exercise in futility, as they risk being rendered obsolete by wireless innovation, or worse, standing in the way of innovation.

**A. The Proposed Rules Could Stifle Innovative Network Management Practices and Would Inject Uncertainty Into the Mobile Broadband Market.**

The Commission’s proposed rules, while an attempt to promote “innovation without permission” at the network edge, would impose the exact opposite regime on the network core by stifling carriers’ and infrastructure providers’ ability to provide innovative network management functions to consumers. Commenters have observed the central role that network management has played in the development of the Internet, as well as the connection between intelligent management of the network core and the end user experience.<sup>165</sup> Innovation at the

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<sup>164</sup> *See id.* (“Providers are hard at work at ensuring that such voice prioritization will still be possible in tomorrow’s 4G networks, when *all* transmissions, including voice, will take the form of IP packets that appear to be ‘data.’ A rule that limited wireless carriers’ flexibility to respond dynamically to the performance needs of voice packets on 4G networks, whether from a provider’s own customers or from customers calling from other networks, could severely compromise the utility of wireless networks as platforms for voice calls (including emergency calls).”) (emphasis in original); MetroPCS Comments at 45 (“Wireless access also is unique in that voice is the primary use of wireless bandwidth, with data, and streaming video and audio mixed in. This will become of even greater importance as wireless carriers transition their networks to 4G speeds using LTE technology, and wireless providers must be able to prioritize voice, data and streaming video and audio appropriately in order to provide the best possible experience for all customers.”); T-Mobile Comments at 25 (“The NPRM makes clear that the proposed rules would not apply to traditional voice services and thus should not prohibit this type of prioritization. It is less clear, however, whether this same rule holds true with respect to prioritization of voice when it transitions to an all-IP format in LTE-based 4G networks. Would the carve-out for voice continue to permit providers to prefer voice traffic? If the Commission does not clarify that carriers may engage in packet differentiation and quality of service measures to accomplish this, the future of voice over 4G networks could be very much in question.”) (footnote omitted).

<sup>165</sup> *See, e.g.*, TIA Comments at 3 (“The open Internet is, and has always been, a managed Internet. It relies on a highly intelligent network core, and management occurs across the network on an ongoing basis.”); Verizon Comments at 81 (“[T]here is now widely established consensus among virtually all concerned that network management is critical to maintaining a

network core should be encouraged, not discouraged, as it both enhances the quality of the consumer experiences and creates an environment that promotes innovation in handset and application development. The Commission’s proposed rules, however, threaten the level of innovation in this part of the wireless ecosystem by creating uncertainty as to the legitimacy of new network management and quality of service techniques and technologies, potentially after they have been through the R&D process and after they have been implemented into networks.

Section III of these Comments highlighted the technological differences between wireless and wired networks and the need to ensure the highest-quality experience for all consumers, not only those whose data demands overwhelm the network core. The record in this proceeding demonstrates the numerous consumer benefits that result from active network management. It is through network management that wireless broadband providers are able to minimize latency for end users,<sup>166</sup> guard users against harmful traffic or content,<sup>167</sup> respond to a constantly-moving

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functioning Internet and to respond to a variety of issues that are growing more complex over time.”).

<sup>166</sup> Transcript of FCC Technical Advisory Workshop on Broadband Network Management at 230 (Dec. 8, 2009), *available at* [http://www.openinternet.gov/workshops/docs/ws\\_tech\\_advisory\\_process/Technical%20Advisory%20Workshop%20Transcript.doc](http://www.openinternet.gov/workshops/docs/ws_tech_advisory_process/Technical%20Advisory%20Workshop%20Transcript.doc) (“TAP Workshop Transcript”) (“So, a sensitivity to latency for VoIP – voiceover IP – and gaming is going to be a lot tighter than something like web browsing or e-mail reading or something like meter reading, which maybe could be in several minutes or even hours. So, the latency requirements are going to vary quite a bit, and that’s why it’s important for us to be able to have the capability to offer managed services.”). *See also* TIA Comments at 26 (“By using QoS management, traffic that is sensitive to jitter or packet loss or latency, such as VoIP, can be given appropriate resources, while spreading less-sensitive traffic over time; by such an approach, it is possible to accommodate more traffic overall while increasing the perceived quality of sensitive traffic.”); Joint Declaration of Michael D. Poling and Thomas K. Sawanobori, GN Docket No. 09-191, ¶ 21 (Jan. 14, 2010), Attachment E to Verizon Comments (“Verizon Network Management Declaration”) (“For example, [wireless operators] may use quality of service marking at the cell site to instruct the scheduler to bypass the throughput performance improvements and send the data in real time but at reduced speed. This treatment can improve the quality of low bandwidth voice while still enabling high capacity data to simultaneously be served by the cell site.”).

<sup>167</sup> TAP Workshop Transcript at 229 (“One of the things that makes it more challenging is this whole issue of cyber tax and malware, because that creates unwanted traffic that we still have to deal with. So, we have to still figure [out] how to manage that and get rid of it, so it

subscriber base,<sup>168</sup> address capacity constraints,<sup>169</sup> and otherwise maintain a high quality of service for their customers. In sum, the complex and constantly evolving network management practices in the wireless context are “essential to meeting the needs of all customers.”<sup>170</sup>

Indeed, mobile broadband providers’ ability to actively manage their networks has enhanced competition between wireless providers as “[t]he breadth and depth of network

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doesn’t impact our customers, to the maximum extent that we can.”); Verizon Network Management Declaration, ¶ 8 (discussing various cybersecurity threats and stating that “[p]reventing and defending against attacks requires flexible, agile network management practices and quick responses to emerging threats if harm is to be limited and to ensure continuity of critical services. It also requires modifying equipment, architecture, design, and techniques in order to identify and defend against new forms of attacks.”); Castle Declaration, ¶ 20 (“Providers need the flexibility to limit suspicious applications until they are tested and to constrain use of potentially disruptive applications at least temporarily to prevent collateral damage to other applications and services on the network.”).

<sup>168</sup> TAP Workshop Transcript at 230-232; Verizon Network Management Declaration, ¶ 22 (“In addition, because congestion is difficult to predict on a cell site-specific, realtime basis given user mobility, wireless providers may utilize predictive modeling to assist in determining where congestion might occur. However, given the size, complexity, and growth of wireless data, it may not be practical or realistic to accurately predict congestion. Furthermore, if a customer in a congested cell site is utilizing a disproportionate share of the capacity of that cell, it may be appropriate to temporarily adjust the throughput of that user so that others can fairly share the available bandwidth, subject to disclosure of such a practice to the customer.”); Castle Declaration, ¶ 8 (“[W]ireless users are mobile and providers cannot anticipate how many users will be sharing the wireless network in a particular location at any particular time. Without careful network management, however, the risk is significantly increased that one customer’s online video game frenzy could interfere with and even block another customer’s critical life-saving telephone call.”).

<sup>169</sup> See, e.g., Verizon Network Management Declaration, ¶ 17b (“[W]ireless networks need to accommodate a constantly changing mix and volume of voice and data users and traffic at individual cell site locations. The network must engage in real-time, dynamic management of the radio frequency (“RF”) ‘last mile’ connections. Resource availability and network performance in the mobile wireless environment are thus subject to significantly more variation in usage than a fixed network (although fixed wireless services frequently share bandwidth resources with mobile services and therefore can be subject to the same constraints). In addition, the need to follow individual users throughout the network also imposes bandwidth ‘overhead’ on the system, because there must always be a small reserve of capacity at each cell site in order to prepare for either the next user to originate a session or for a current session to engage in the next handoff.”).

<sup>170</sup> Motorola Comments at 13.

coverage is a principal basis on which wireless providers compete with one another.”<sup>171</sup>

Verizon’s recent “There’s A Map for That” campaign focuses on the extent of its 3G coverage as an advantage over other carriers.<sup>172</sup> Similarly, AT&T has launched a national advertising campaign touting the superiority of its 3G speed, service features, applications, and devices.<sup>173</sup> Recent proceedings have highlighted the intense competition present in the wireless broadband market, and indeed providers compete on nearly every aspect of service. Network operators know that “[a] provider’s ability to offer customers a highly secure and well-functioning network is a marketplace advantage,”<sup>174</sup> and compete vigorously on network quality.

**B. The Commission’s Rules, As Written, Unnecessarily Bring Uncertainty into the Wireless Ecosystem.**

Adoption of the proposed net neutrality rules would inject substantial uncertainty into the wireless broadband market, deterring investment, stifling innovation, and harming consumers. As stated above, carriers engage in complex and constantly changing network management practices to serve customers and compete on network quality. However, these innovations at the network core would be threatened by the imposition of regulation intended to promote “innovation without permission” at the network edge. Imposition of rules that “limit experimentation with new business models and network management practices will prevent

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<sup>171</sup> Verizon Comments at 23. *See also, e.g.*, T-Mobile Comments at 14 (“Providers recognize that what sells is *more, better, and faster* access to the Internet and as much compelling content and applications as possible.”) (emphasis in original).

<sup>172</sup> Verizon Comments at 23.

<sup>173</sup> *See, e.g.*, “Wireless,” Communications Daily, Nov. 20, 2009.

<sup>174</sup> AT&T Comments at 195.

network operators from enhancing the functionality of their networks and will undermine the business case for investing in higher capacity broadband networks.”<sup>175</sup>

Numerous commenters in this proceeding have expressed confusion over the proposed rules and their vague descriptions and definitions.<sup>176</sup> Mobile broadband providers cannot be expected to innovate in such an uncertain environment, particularly if these new services, plans, and products face the specter of long, expensive, and unnecessary challenges at the FCC in the name of net neutrality. The proposed rules would, in essence, require carriers and infrastructure providers to: (i) seek FCC permission in advance of the R&D stage of network development; (ii) seek FCC permission before implementing network management practices that otherwise could be held to violate the Commission’s nebulous rules in an after-the-fact adjudication; or (iii) refrain from innovating. In any of these cases, uncertainty will result, which will chill innovation and investment, ultimately harming consumers and undermining the Commission’s policy goals.<sup>177</sup> The wireless broadband market is one where “the introduction of the dead hand of

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<sup>175</sup> Ericsson Comments at 25 (“If providers are uncertain about what actions they can or cannot take to manage their networks, they may refrain from innovating or using management techniques that allow them to improve network performance for *all* customers.”) (emphasis in original); Declaration of Gary S. Becker and Dennis W. Carlton, GN Docket No. 09-191, ¶ 66 (Jan. 14, 2010) (“Becker-Carlton Declaration”), Attachment A, Verizon Comments. *See also* CDG Comments at 12 (stating that the proposed rules “could also reduce or distort further investment in broadband systems” as network operators may have less incentive to invest if “they will not be able to deploy networks that meet their customers’ high standards”).

<sup>176</sup> *See, e.g.*, Comments of CenturyLink, GN Docket No. 09-191, at 15 (Jan. 14, 2010) (“CenturyLink Comments”) (“As rules, the proposed language is unduly vague as to what is ‘reasonable network management,’ what is adequate transparency, and what is reasonable ‘discrimination.’”); Comments of Time Warner Cable, Inc., GN Docket No. 09-191, at 32 (Jan. 14, 2010) (“Time Warner Cable Comments”) (“With its broad and vague prohibition on ‘discrimination,’ the NPRM would make it difficult if not impossible for broadband Internet access service providers to pursue various means of expanding consumer choice.”).

<sup>177</sup> *See, e.g.*, CenturyLink Comments at 9; Faulhaber-Farber Paper at 31 (outlining the complexities and uncertainties associated with the application of net neutrality regulations to wireless broadband and concluding that “[t]he only result that can follow imposing these regulations on wireless broadband is *less efficient use of spectrum, higher costs of operation, and lower rates of investment and innovation.*”) (emphasis in original).

regulation can be paralyzing.”<sup>178</sup> And, in the end, it will be consumers who suffer, as the inability of network operators to innovate without permission will result in technology being frozen at the time the Commission sets its rules. In the rapidly evolving wireless ecosystem, that impact could result in the U.S. losing its place atop the worldwide wireless ecosystem, or the U.S. becoming isolated due to its different regulatory regime.

Indeed, the Commission has recently witnessed a real-world example of the negative impact of uncertainty caused by net neutrality-like regulation: the auction of the 700 MHz C Block. As CTIA observed in its initial Comments, the imposition of open access regulations on the 22 MHz C Block, together with the associated uncertainty caused by these regulations, deterred bidding and caused the spectrum to sell for a far lower price than the 12 MHz B Block.<sup>179</sup> This example is illustrative of the impact of the uncertainty that the rules the Commission now seeks to impose on all wireless broadband providers will bring to the wireless ecosystem.

Finally, CTIA notes that the innovation- and investment-deterring effects of net neutrality regulation stand in stark contrast with the stated goal of the Chairman and the Obama Administration: that the United States be a world leader in broadband innovation, investment, and deployment.<sup>180</sup> In the current economic climate, the wireless industry has been a model of

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<sup>178</sup> Faulhaber-Farber Paper at 32.

<sup>179</sup> See CTIA Comments at 35-38.

<sup>180</sup> See, e.g., Prepared Remarks of Chairman Julius Genachowski to the New America Foundation, Mobile Broadband: A 21<sup>st</sup> Century Plan for U.S. Competitiveness, Innovation, and Job Creation, at 2 (Feb. 24, 2010), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-296490A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-296490A1.pdf) (“When it comes to mobile broadband, our goal is clear: To benefit all Americans and promote our global competitiveness, the U.S. must have the fastest, most robust, and most extensive mobile broadband networks, and the most innovative mobile broadband marketplace in the world.”); Vice President Biden Launches Initiative to Bring Broadband, Jobs to More Americans (July 1,

innovation, investment, job creation, and the fulfillment of other important public interest objectives. There is no basis for the FCC to interfere with this highly successful model through the imposition of unnecessary rules.

**C. Negative Consequences Will Result From Regulating One Component of an Interdependent System.**

CTIA's recent filings have demonstrated the interdependent nature of the wireless ecosystem. The interaction between network operators, equipment manufacturers, application/content providers, and consumers has created a virtuous cycle of innovation and investment. The Commission has posited that by applying its rules to one set of participants in the wireless ecosystem – broadband Internet access providers – it will ensure the open nature of the Internet. CTIA cautions the Commission that regulating one area of a highly complex, highly interdependent ecosystem could result in unintended, negative consequences by altering the interaction between the various ecosystem elements. In fact, it is innovation at the network core that has driven the virtuous cycle of innovation in handsets and applications.

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2009), *available at* [http://www.whitehouse.gov/the\\_press\\_office/Vice-President-Biden-Launches-Initiative-to-Bring-Broadband-Jobs-to-More-Americans/](http://www.whitehouse.gov/the_press_office/Vice-President-Biden-Launches-Initiative-to-Bring-Broadband-Jobs-to-More-Americans/).

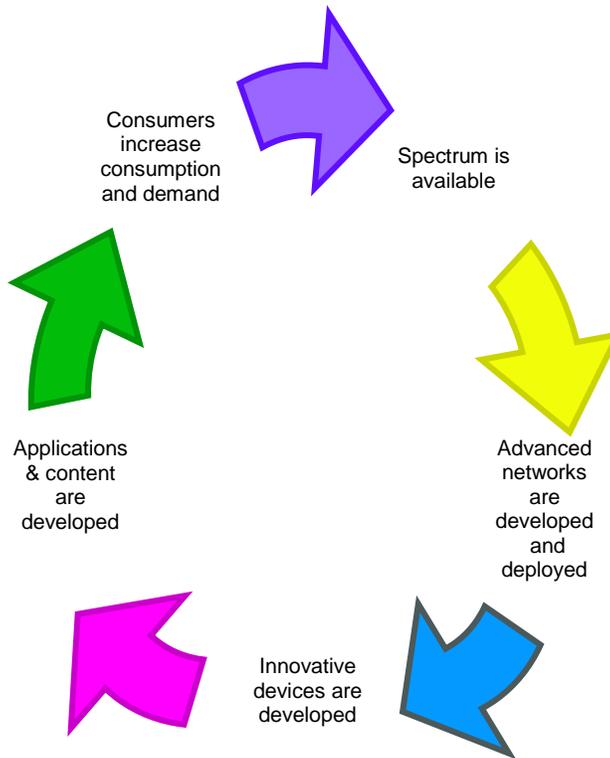


Figure 1. The Virtuous Cycle of the Mobile Wireless Ecosystem

The wireless ecosystem has evolved beyond the traditional model of a single point of contact with the consumer. As the record in this proceeding demonstrates, consumers have multiple points of contact with the wireless ecosystem depending on how the individual consumer chooses to use mobile broadband. For example, T-Mobile’s initial Comments highlighted the Android operating system, an open platform that enables third party developers to create a variety of applications for users’ handsets.<sup>181</sup> And, as T-Mobile notes, “customers on any T-Mobile smartphone can also use their Internet connection to navigate the web more generally and access web-based applications.”<sup>182</sup> iPhone users can use the iTunes App Store to

<sup>181</sup> See T-Mobile Comments at 11-12.

<sup>182</sup> *Id.* at 13.

obtain applications created by third-party developers,<sup>183</sup> while BlackBerry users have access to third-party applications through the BlackBerry App World.<sup>184</sup> In short, in the wireless ecosystem, there is now “a platform through which third-party application developers of all sizes can reach large numbers of customers and earn revenue to reward and fund innovation.”<sup>185</sup> Notably, for the most part neither the developer of an application nor the provider of an “app store” is a Commission licensee: these ecosystem players, for the most part, are not entities that fall under the Commission’s authority.

It is simplistic and misguided for the Commission to assume that if it regulates consumers’ access to the Internet, that the Commission’s regulatory objectives will flow to the ecosystem as a whole and conversely that the negative impact of restricting one player will not impact the rest of the ecosystem. First, and as stated below, recent history has shown that other parties to the wireless ecosystem have taken actions that are antithetical to the Commission’s vision of an open Internet, and regulation of broadband access providers would do nothing to prevent such behavior. Second, it is wireless providers who make the substantial investments that facilitate the applications market. By inhibiting innovation and investment in the network core, the Commission will stifle innovation at the network edge as a result of the wireless ecosystem’s interdependent nature.

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<sup>183</sup> AT&T Comments at 148 fn. 285.

<sup>184</sup> <http://appworld.blackberry.com/webstore/>.

<sup>185</sup> Verizon Comments at 33.

**V. LEGALLY, THE COMMISSION LACKS THE AUTHORITY TO IMPOSE THE REGULATIONS CONTEMPLATED BY THE NOTICE ON WIRELESS PROVIDERS.**

In addition to the policy, technology, and economic considerations that weigh against application of the proposed rules to wireless broadband Internet access providers, the Commission does not have the legal authority to impose the rules proposed in the *Open Internet NPRM*. Most critically, the D.C. Circuit’s recent decision in *Comcast v. FCC*<sup>186</sup> rejected the legal authority upon which the *Open Internet NPRM* was grounded. Under the APA, the Commission cannot adopt rules premised on a Notice citing incorrect authority, nor can the Commission adopt rules based on legal authority not contained in the NPRM. In addition, the Commission lacks such authority because five of the six proposed rules would impose common carrier regulations and because regulation of wireless broadband Internet access would represent a fundamental, and unjustifiable, change from established Congressional and FCC policy.

**A. The Legal Authority Asserted by the FCC Has Been Rejected and Any Rules Based on Legal Authority Not Contained in the NPRM Would Violate the APA’s Notice Requirement.**

Section 553(b) of the APA requires that a notice of proposed rulemaking include the “reference to the legal authority under which the rule is proposed.”<sup>187</sup> And, legislative history accompanying Section 553(b) explains that “[t]he required specification of legal authority must be done with particularity.”<sup>188</sup> Here, the “legal authority” referenced in the *Open Internet NPRM* relies upon a reading of the FCC’s ancillary authority which the D.C. Circuit specifically rejected in *Comcast*. As explained below, the adoption of rules based upon statutory authority that has

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<sup>186</sup> Docket No. 08-1291, Slip Op. (D.C. Cir. Apr. 6, 2010).

<sup>187</sup> 5 U.S.C. § 553(b).

<sup>188</sup> Sen. Doc. No. 248, 79th Cong. 2d Sess. 258 (1946).

now been rejected would be unlawful, and this defect cannot be remedied by exploring new jurisdictional theories that have not been subjected to public comment.

The *Open Internet NPRM* explicitly relies on the order vacated in *Comcast*, and does not attempt to draw a connection to any express delegations of regulatory authority as a basis for ancillary authority other than sections 706 and 230(b).<sup>189</sup> Both of those raised in *Comcast*, and the Court held that such statements could not provide a basis for the exercise of ancillary authority without a link to a specifically delegated power. The court pointed out that the Commission itself held “[i]n an earlier, still-binding order ... that section 706 ‘does not constitute an independent grant of authority’” and, therefore, the policy statement in section 706 could not serve as a basis for the assertion of ancillary authority.<sup>190</sup> Similarly, though acknowledging that section 230(b) may “shed light” on express statutory delegations of authority, the court rejected the argument that the policy statement in section 230(b) “creates ‘statutorily mandated responsibilities’ sufficient to support the exercise of section 4(i) ancillary authority,” explaining that “if accepted [this argument] would virtually free the Commission from its congressional tether.”<sup>191</sup> Accordingly, the ancillary authority cited by the Commission in the *Open Internet NPRM* cannot support the proposed rules.

While the asserted bases for ancillary authority have been rejected, any attempt by the Commission to adopt rules based on legal authority not contained in the *Open Internet NPRM* would violate the APA, which “at the very least requires that the legal grounds upon which the

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<sup>189</sup> *Open Internet NPRM* at 13099 ¶¶ 83-84 (citing sections 230(b), 706(a), and 201(b)).

<sup>190</sup> *Comcast*, Slip Op. at 30-31 (quoting *In re Deployment of Wireline Servs. Offering Advanced Telecomms. Capability*, 13 F.C.C.R. 24,012, 24,047 ¶ 77 (1998)).

<sup>191</sup> *Id.* at 22-23.

agency thought it was proceeding appear somewhere in the administrative record.”<sup>192</sup> As the D.C. Circuit held in *National Tour Brokers Ass’n v. U.S.*, the Commission cannot wait to assert the grounds for its legal authority when it promulgates final rules.<sup>193</sup>

The asserted bases for legal authority in the *Open Internet NPRM* have been clearly been rejected. Moreover, the legal defect in the notice cannot now be corrected-- any rules based on legal authority not contained in the NPRM would plainly violate section 553(b)(2) of the APA. Under these circumstances, the Commission must abandon its proposals. As CTIA has said throughout this filing, the Commission should not attempt to apply net neutrality rules to wireless providers, but instead should focus on making the promise of the National Broadband Plan a reality.

This is not to suggest that the Commission has no ancillary authority. The Court in *Comcast* went out of its way to reaffirm that the FCC does have ancillary authority. The limitation, then, is whether the action is ancillary to some express delegation of authority and is necessary for the performance of a Commission responsibility. Courts have identified a number of areas where such ancillary authority may exist.<sup>194</sup>

**B. The Commission Lacks Jurisdiction to Impose Net Neutrality Regulations on Wireless Broadband Internet Access Service Providers.**

Even if the ruling in *Comcast* did not foreclose promulgation of the proposed rules, it is clear that the FCC has no jurisdiction to impose the proposed rules on wireless broadband Internet access service providers. The *Open Internet NPRM* asserts two sources of authority to impose access obligations and non-discrimination requirements on wireless broadband Internet

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<sup>192</sup> See, e.g., *Global Van Lines. v. ICC*, 714 F.2d 1290, 1298 (5th Cir. 1983).

<sup>193</sup> 591 F.2d 896, 900 (D.C. Cir. 1978).

<sup>194</sup> See *United States v. Sw. Cable Co.*, 392 U.S. 157 (1968); see also *Am. Library Ass’n v. FCC*, 406 F.3d 689 (D.C. Cir. 2005).

access service providers – the Commission’s Title III authority over “spectrum allocation and licensing,”<sup>195</sup> and its ancillary jurisdiction under *Southwestern Cable* and that decision’s progeny.<sup>196</sup> As several commenters pointed out,<sup>197</sup> however, neither source provides the Commission with jurisdiction to impose the requirements contemplated by the *Open Internet NPRM*. The Communications Act expressly precludes the application of common carriage obligations (such as the proposed access and non-discrimination requirements) to “information services” and the Commission may not use its ancillary authority to impose requirements specifically forbidden by law. Moreover, Title III’s rulemaking provision states on its face that it only provides authority for actions otherwise consistent with the law, and the actions proposed would not comport with the statutory bar on common carrier regulation of these services.

**1. The Commission Lacks the Direct Authority Under Title III of the Act to Apply Access and Non-Discrimination Requirements.**

The Commission relies on its Title III licensing and spectrum regulation authority as a basis to impose access obligations and non-discrimination requirements on wireless broadband Internet access providers. Section 303(r) of the Act, however, provides Title III rulemaking authority only for actions not otherwise “inconsistent with law.”<sup>198</sup> For the reasons discussed below, application of non-discrimination and access requirements to wireless broadband Internet

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<sup>195</sup> *Open Internet NPRM* at 13099 ¶ 86.

<sup>196</sup> *Id.* at 13099 ¶ 83 & n.195 (citing, *inter alia*, *United States v. Sw. Cable Co.*, 392 U.S. 157, 172-73 (1968)).

<sup>197</sup> *See, e.g.*, AT&T Comments at 208-235; Comcast Comments at 22-26; Comments of Barbara S. Esbin, Senior Fellow and Director of the Center for Communications and Competition Policy at the Progress & Freedom Foundation, GN Docket No. 09-191, at 13-71 (Jan. 14, 2010); Time Warner Comments at 41-44; Verizon Comments at 86-109.

<sup>198</sup> 47 U.S.C. § 303(r).

access would in fact be inconsistent with the legal bar against common carrier treatment of information services – a conclusion the FCC itself has already drawn.

First, Section 3(44) of the Act establishes that, like all telecommunications carriers, a commercial mobile radio service (“CMRS”) provider may be treated as a common carrier “only to the extent that it is engaged in providing telecommunications services...”<sup>199</sup> Because the Commission has concluded that broadband Internet access service, including wireless broadband Internet access, is not a telecommunications service pursuant to Section 3 of the Communications Act but rather an “information service” as defined by Section 3(20),<sup>200</sup> it lacks the authority to impose common carrier non-discrimination rules. The *Open Internet NPRM*’s citation to the *Wireless Broadband Classification Order* in support of the exercise of Title III jurisdiction here not only does not alter this conclusion,<sup>201</sup> it affirms the Commission’s lack of authority.

The *Open Internet NPRM* observes that “the spectrum allocation and licensing provisions of Title III and the Commission’s rules continue to apply to wireless broadband Internet access

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<sup>199</sup> 47 U.S.C. § 153(44).

<sup>200</sup> See *Wireless Broadband Classification Order*, 22 FCC Rcd at 5902 ¶ 2, 5915-21 ¶¶ 37-56; see also *Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities*, Declaratory Ruling and Notice of Proposed Rulemaking, 17 FCC Rcd 4798, 4832 ¶ 7 (2002) (“*Cable Modem Order*”); *Nat’l Cable Telecomms. Ass’n v. Brand X Internet Servs.*, 545 U.S. 967, 975-76 (2005) (recognizing that Congress has determined that information services should be subjected to a lighter regulatory touch than telecommunications services) (“*Brand X*”); *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853, 14855 ¶ 1 (2005) (“establish[ing] a minimal regulatory environment for wireline broadband Internet access services”) (“*Wireline Broadband Order*”); *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, 21 FCC Rcd 13281, 13281 ¶ 2 (2006) (“establish[ing] a minimal regulatory environment for BPL-enabled Internet access service”); see generally 47 U.S.C. § 153(20) (defining offerings that should be regulated as “information services”).

<sup>201</sup> *Open Internet NPRM* at 13099 ¶ 86 n. 201 (citing *Wireless Broadband Classification Order*, 22 FCC Rcd 5901).

services because these services use radio spectrum.”<sup>202</sup> The question here, however, is not whether Title III gives the Commission *some* authority to regulate the provision of wireless broadband Internet access service (*e.g.*, to prevent interference), but rather whether, pursuant to Title III, the Commission may impose *common carriage* obligations on the provision of wireless broadband Internet access. The Commission itself answered this question in the very order that it cites in the *Open Internet NPRM – the Wireless Broadband Classification Order* says “under Section 3, [a] service provider is to be treated as a common carrier for the telecommunications services it provides, but it cannot be treated as a common carrier with respect to other, non-telecommunications services it may offer, including information services.”<sup>203</sup>

The Notice, however, proposes to do exactly what the statute prohibits – namely, to impose common carriage obligations on an offering defined as an “information service.” Five of the six proposed conditions (principles one through four and particularly principle five, the “non-discrimination” principle) would require broadband Internet access providers to offer non-discriminatory access – the “*sine qua non*” of common carrier regulation, as recognized by the D.C. Circuit.<sup>204</sup> In this regard, the *Open Internet NPRM* is explicit in referencing the non-discrimination principle in terms of Title II regulation generally as well as specific Title II

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<sup>202</sup> *Id.* at 13099 ¶ 86.

<sup>203</sup> *Wireless Broadband Classification Order*, 22 FCC Rcd at 5919 ¶ 50.

<sup>204</sup> *Time Warner Telecom, Inc. v. FCC*, 507 F.3d 205, 210 n.5 (3d. Cir. 2007) (quoting *Nat'l Ass'n of Regulatory Util. Comm'rs v. FCC*, 533 F.2d 601, 608 (D.C. Cir. 1976) (“[T]he primary *sine qua non* of common carrier status is [that the entity has taken on] a quasi-public character, which arises out of the undertaking ‘to carry for all people indifferently.’”). *See also* 47 U.S.C. § 201(a) (“It shall be the duty of every common carrier engaged in interstate or foreign communication by wire or radio to furnish such communication service upon reasonable request therefor”); 47 U.S.C. 202(a) (“It shall be unlawful for any common carrier to make any unjust or unreasonable discrimination”).

non-discrimination provisions.<sup>205</sup> Indeed, ironically, the Commission proposes a discrimination standard that is *more restrictive than the general common carrier standard* – namely, it proposes to eliminate the “unjust or unreasonable” qualifier that moderates the scope of the general common carrier prohibition against discrimination, precluding all differential treatment, even where such differentiation is *reasonable*.<sup>206</sup>

The only other precedent identified by the *Open Internet NPRM* in support of Title III jurisdiction likewise did not address the Commission’s authority to adopt rules if inconsistent with other sections of the Act; indeed, in that matter, the Commission observed that “[n]o party ha[d] challenged our explicit invocation of Title III as a basis for imposing the resale rule.”<sup>207</sup> These precedents, in short, do not justify the actions proposed in the *Open Internet NPRM*.<sup>208</sup>

In sum, under any theory of Title III jurisdiction put forward in the *Open Internet NPRM*, the Commission simply lacks authority to impose common carriage obligations on the provision of wireless Internet access service, as application of the access and non-discrimination rules proposed contradict Sections 3 and 332(c), and thereby violate Section 303(r)’s bar against regulation “inconsistent with law.” Despite the *Open Internet NPRM*’s citation to several

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<sup>205</sup> See *Open Internet NPRM* 13106 ¶ 109 & n.231 (citing 47 U.S.C. § 202(a) (non-discrimination by common carrier) and 47 U.S.C. § 251(c)(2)(D) (non-discrimination by incumbent local exchange carriers, a subset of common carriers)); *Open Internet NPRM* at 13107 ¶ 115 (citing Title II generally, Section 202 again, and Section 272 (non-discrimination by Bell Operating Companies, a subset of common carriers)).

<sup>206</sup> *Id.* at 13106 ¶ 109.

<sup>207</sup> *Id.* at 13099 ¶ 86 n.202 (citing *Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services*, Memorandum Opinion and Order on Reconsideration, 14 FCC Rcd 16340, 16352-53 ¶ 27 (1999) (“*Resale Order*”)). See also *Resale Order*, 14 FCC Rcd at 16353 ¶¶ 28-29.

<sup>208</sup> Even if the cited orders *had* relied on Title III jurisdiction to impose common carrier regulation on non-common carriers, or to adopt other rules that were inconsistent with the Communications Act, for the reasons discussed above, any such decision would have been unlawful, and could not serve as a basis to surmount the clear statutory bar against a similar approach here.

provisions of Title III,<sup>209</sup> any rules adopted here pursuant to Title III jurisdiction would rely on the Commission's general rulemaking authority under Section 303(r) of the Act, which prohibits the Commission from making rules and regulations, or prescribing restrictions and conditions, that are "inconsistent with law."<sup>210</sup>

## **2. The Commission Lacks Ancillary Jurisdiction to Apply Access and Non-Discrimination Requirements.**

As already mentioned, the Commission also seeks to exercise its ancillary jurisdiction to place the proposed core obligations of common carriage on service offerings that the Act specifically excludes from the reach of such requirements. As the D.C. Circuit has recognized, the Commission's ancillary jurisdiction under Title I of the Act derives in part from Section 4(i) of the Act, which limits such authority to actions that are "not inconsistent with" the Act itself.<sup>211</sup> Accordingly, since the Commission lacks the direct authority to impose Title II common carrier obligations on wireless broadband services, it must lack ancillary authority.

"[A]t the outset it is appropriate to inquire, as did the Supreme Court in *Southwestern*, whether any statutory commandments are directly contravened by the assert[ion]" of ancillary jurisdiction.<sup>212</sup> Here, the clear, simple answer to this question is "yes": The contemplated rules would directly contravene the statutory text, and are therefore outside the scope of the Commission's ancillary jurisdiction.

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<sup>209</sup> *Open Internet NPRM* at 13099 ¶ 86 n. 200 (citing 47 U.S.C. §§ 303, 301, 307, 308, and 309).

<sup>210</sup> 47 U.S.C. § 303(r).

<sup>211</sup> *Am. Library Ass'n v. FCC*, 406 F.3d 689, 692 (D.C. Cir. 2005) (quoting 47 U.S.C. § 154(i)). *See also id.* at 700 (quoting 47 U.S.C. § 303(r) (ancillary jurisdiction may be exercised only if the regulations are "not inconsistent with law"))).

<sup>212</sup> *Nat'l Ass'n of Regulatory Util. Comm'rs*, 533 F.2d at 607 (footnote omitted) (citing *Sw. Cable*, 392 U.S. at 169 n.29).

As described above, the Commission has concluded that wireless broadband Internet access service is neither a telecommunications service pursuant to Section 3 of the Communications Act nor a CMRS pursuant to Section 332 of the Act, but rather an “information service” as defined by Section 3(20).<sup>213</sup> Under the Act, this designation precludes the application of common carriage requirements to wireless broadband Internet access service.

The issue of application of common carrier obligations on services excluded from Title II has been addressed by the Supreme Court of the United States before. In a closely analogous case, *Midwest Video II*, the Commission had adopted rules “ensuring public access to cable systems” in a manner such that “cable operators [we]re deprived of all discretion regarding who may exploit their access channels and what may be transmitted over such channels.”<sup>214</sup> The Court concluded that the “access rules plainly impose common-carrier obligations on cable operators,” because “[u]nder the rules, cable systems are required to hold out dedicated channels on a first-come, nondiscriminatory basis.”<sup>215</sup> The Court rejected the Commission’s argument that it could impose public access requirements on cable operators as ancillary to its jurisdiction over broadcasting because Section 3(h) (now 3(10)) of the Act expressly *prohibited* treating broadcasters as common carriers.<sup>216</sup> The Commission, the Court held, could not rely on its authority over broadcasters to impose rules on cable providers that it could not impose on broadcasters themselves.<sup>217</sup>

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<sup>213</sup> *Wireless Broadband Classification Order*, 22 FCC Rcd at 5915-21 ¶¶ 37-56.

<sup>214</sup> *FCC v. Midwest Video Corp.*, 440 U.S. 689, 692-93 (1979) (“*Midwest Video II*”).

<sup>215</sup> *Id.* at 701-702.

<sup>216</sup> 47 U.S.C. § 153(10) (“a person engaged in radio broadcasting shall not, insofar as such person is so engaged, be deemed a common carrier”).

<sup>217</sup> *Midwest Video II*, 440 U.S. at 706 (“Of course, § 3 (h) does not explicitly limit the regulation of cable systems. But without reference to the provisions of the Act directly

Significantly, the Court in *Midwest Video II* rejected the argument (raised by the dissent) that the cable leased access provisions were permissible because they only “imposed [a] requirement [that] might be termed a ‘common carrier obligation[,]’” as opposed to “*deem*[ing]” cable operators to be common carriers under Title II.<sup>218</sup> Rather, the Court concluded that the provision’s “mandatory wording” (along with its purpose) “preclude[s] Commission discretion to compel broadcasters to act as common carriers, *even with respect to a portion of their total services.*”<sup>219</sup>

*Midwest Video II*’s reasoning applies even more directly here, because the statutory prohibition against imposing common carriage obligations applies directly to the service at issue – *i.e.*, an information service. The mandatory language of Sections 332(c) and 3(44) prohibits the Commission from imposing obligations of common carriage on the provision of information services such as wireless broadband Internet access service. As the Commission observed in the *Wireless Broadband Classification Order*, under Section 3, a service provider “cannot be treated as a common carrier with respect to . . . non-telecommunications services it may offer, including information services.”<sup>220</sup>

Thus the Communications Act itself establishes an inescapable bar on the exercise of ancillary jurisdiction here.<sup>221</sup> As the D.C. Circuit observed, in the absence of statutory authority,

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governing broadcasting, the Commission’s jurisdiction under § 2 (a) would be unbounded . . . . Though afforded wide latitude in its supervision over communication by wire, the Commission was not delegated unrestrained authority.”).

<sup>218</sup> *Id.* at 705 n.15.

<sup>219</sup> *Id.* (emphasis added).

<sup>220</sup> *Wireless Broadband Classification Order*, 22 FCC Rcd at 5919 ¶50.

<sup>221</sup> Nothing in this analysis affects the Commission’s recent imposition of “social” obligations that do not themselves comprise common carrier regulation such as interception, E911, universal service contribution, privacy, numbering, and disability access requirements in

the Commission simply “may not impose common carrier status upon any given entity on the basis of the desired policy goal the Commission seeks to advance.”<sup>222</sup>

**C. The FCC Lacks a Reasoned Basis for Imposition of Net Neutrality Regulation on Wireless Broadband Providers.**

Any examination of the proposed rules beyond the threshold jurisdictional question demonstrates that imposing the contemplated requirements on the provision of wireless Internet access would contradict Congress’ directives. Further, application of these proposed rules would be a complete reversal of Commission precedent without any justification and therefore would fail to satisfy the APA’s rulemaking requirements.

**1. Congress Has Set a Higher Bar for Regulating Wireless Services – A Standard that the Commission Cannot Meet Here.**

The Commission’s actions here must be guided, first and foremost, by the substantive and procedural standards set out in governing statutes. It is axiomatic that Commission actions must adhere both to the plain language of its statutory mandate and to statutory purpose.<sup>223</sup> As the Commission contemplates imposing far-reaching access and non-discrimination regulation on broadband service providers including wireless operators, it is important to recognize that Congress has mandated – and the Commission has consistently followed – a very limited regulatory framework for wireless services. Accordingly, the FCC’s authority to take a different approach “must come specifically from Congress.”<sup>224</sup>

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the context of VoIP or broadband Internet access under other statutory provisions or under ancillary jurisdiction.

<sup>222</sup> *Sw. Bell Tel. Co. v. FCC*, 19 F.3d 1475, 1481 (D.C. Cir. 1994).

<sup>223</sup> *See, e.g., Am. Fin. Servs. Ass’n v. FTC*, 767 F.2d 957, 968 (D.C. Cir. 1985) (recognizing that the judiciary must “reject administrative agency actions which exceed the agency’s statutory mandate or frustrate congressional intent”).

<sup>224</sup> *Midwest Video II*, 440 U.S. at 709.

In the Omnibus Budget Reconciliation Act of 1993 (“OBRA-93”),<sup>225</sup> Congress directed the FCC to take a deregulatory approach to wireless services. Prior to 1993, the Commission had heavily regulated wireless providers, subjecting them to the same Title II common carrier regulations as it applied to traditional wireline providers.<sup>226</sup> OBRA-93 rejected that paradigm – indeed, it “dramatically revise[d] the regulation of the wireless telecommunications industry.”<sup>227</sup> In the Commission’s own words, “the statutory plan is clear.”<sup>228</sup> The “overarching congressional goal” was to “promot[e] opportunities for economic forces – not regulation – to shape the development of the CMRS market.”<sup>229</sup> Indeed, Congress specifically amended the Act to implement its “general preference in favor of reliance on market forces rather than regulation,”<sup>230</sup> and to permit the mobile wireless market to develop subject only to the degree of regulation “for which the Commission and the states could demonstrate a clear-cut need.”<sup>231</sup> Not surprisingly, then, the FCC has interpreted Congress’s deregulatory mandate as setting out a requirement that regulatory authorities “clear substantial hurdles” before imposing new regulatory requirements

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<sup>225</sup> Pub. L. No. 103-66, 107 Stat. 312 (1993).

<sup>226</sup> See *Implementation of Sections 3(n) and 332 of the Communications Act*, Second Report and Order, 9 FCC Rcd 1411, 1414 ¶ 3 (1994) (“*Second CMRS Report and Order*”).

<sup>227</sup> *Cellnet Commc’ns, Inc. v. FCC*, 149 F.3d 429, 433 (6th Cir. 1998), aff’d, No. CC-94-54, 199 WL 759700 (FCC Sept. 27, 1999).

<sup>228</sup> *Petition on Behalf of the State of Hawaii, Public Utility Commission, for Authority To Extend Its Rate Regulation of Commercial Mobile Radio Services in the State of Hawaii*, Report and Order, 10 FCC Rcd 7872, 7874 ¶ 10 (1995) (“*Hawaii R&O*”).

<sup>229</sup> *Implementation of Sections 3(n) and 332 of the Communications Act*, Third Report and Order, 9 FCC Rcd 7988, 8004 ¶ 29 (1994).

<sup>230</sup> *Petition of New York State Public Service Commission To Extend Rate Regulation*, Report and Order, 10 FCC Rcd 8187, 8190 ¶ 18 (1995).

<sup>231</sup> *Hawaii R&O*, 10 FCC Rcd at 7874 ¶ 10.

on the wireless industry.<sup>232</sup> Thus, the Commission itself has interpreted OBRA-93 to place a higher burden of justification on wireless regulation than would normally adhere under baseline principles of administrative law.

Summarizing its consistently deregulatory approach to mobile wireless providers, the Commission has stated that it relies “on market forces, rather than regulation, except when there is market failure.”<sup>233</sup> Here, as evidenced in CTIA’s and numerous others’ comments, and in the Commission’s own *Open Internet NPRM* and the Commission’s reports to Congress, there is no market failure. This light regulatory approach has worked, most importantly by preserving the incentives for wireless providers to invest in their networks, knowing that their own competitive decisions will determine their success or failure.<sup>234</sup> In turn, as the Commission and Congress have recognized, and as CTIA has detailed here and in other proceedings, wireless services have benefited from investment, innovation and competition which have greatly enhanced value to consumers.

## **2. Congress Has Established Statutory Policy Against Regulation of the Internet.**

Congress has also directed the Commission to take a hands-off approach to the Internet. As stated in Section II, *supra*, Section 230(b) of the Communications Act established “the policy of the United States . . . to preserve the vibrant and competitive free market that presently exists

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<sup>232</sup> *Petition of the Connecticut Department Public Utility Control To Retain Regulatory Control of the Rates of Wholesale Cellular Service Providers in the State of Connecticut*, Report and Order, 10 FCC Rcd 7025, 7027 ¶ 4 (1995).

<sup>233</sup> *Jacqueline Orloff v. Vodafone AirTouch Licenses LLC, d/b/a Verizon Wireless*, Memorandum Opinion and Order, 17 FCC Rcd 8987, 8997 ¶ 22 n.69 (2002) (“*Orloff MO&O*”), *aff’d sub nom. Orloff v. FCC*, 352 F.3d 415 (D.C. Cir. 2003).

<sup>234</sup> *Fostering Innovation and Investment in the Wireless Communications Market*, Notice of Inquiry, 24 FCC Rcd 11322, 11325 ¶ 11 (2009) (seeking comment on the Commission’s role in supporting and encouraging innovation and investment and asking what elements of its rules and policies have been successful in stimulating and promoting innovation and investment).

for the Internet . . . *unfettered* by Federal or State regulation[.]”<sup>235</sup> The FCC has faithfully implemented this statutory mandate, determining that broadband Internet access offerings, including those offered over the wireless platform, are properly classified as information services – and thus largely unregulated – rather than as heavily regulated common carrier “telecommunications services.”<sup>236</sup> The Commission should maintain this approach. To date, it has worked to drive both investment and innovation to the U.S. broadband market.

### **3. An Effort to Apply Net Neutrality Regulation to Wireless Broadband Providers Would Fail to Satisfy APA Requirements.**

In addition to following Congress’ deregulatory mandates for both wireless services and the Internet, any imposition of neutrality requirements must satisfy a higher burden under the APA as a result of Commission precedent.<sup>237</sup> Because the Commission cannot show any actual harms to consumers under the existing regime, can only cite to predictive harms and has yet to realize the results of its prior decision on “open access,” the Commission cannot overcome the APA’s bar on arbitrary and capricious actions.

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<sup>235</sup> 47 U.S.C. § 230(b) (emphasis added).

<sup>236</sup> See *Cable Modem Order*, 17 FCC Rcd at 4832 ¶ 7; see also *Brand X*, 545 U.S. at 975-76 (recognizing that Congress has determined that information services should be subjected to a lighter regulatory touch than telecommunications services); *Wireline Broadband Order*, 20 FCC Rcd at 14855 ¶ 1 (“establish[ing] a minimal regulatory environment for wireline broadband Internet access services...”); *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, 21 FCC Rcd 13281, 13281 ¶ 2 (2006) (“establish[ing] a minimal regulatory environment for BPL-enabled Internet access service”); *Wireless Broadband Classification Order*, 22 FCC Rcd at 5902 ¶ 2 (“establish[ing] a minimal regulatory environment for wireless broadband Internet access service...”); see generally 47 U.S.C. § 153(20) (defining offerings that should be regulated as “information service[s]”).

<sup>237</sup> See 5 U.S.C. § 706(2)(A) (requiring a reviewing court to set aside agency action that is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law”).

**a. There is no sufficient evidence of harm to wireless broadband consumers under the current regime.**

Absent some factual basis for new wireless “net neutrality” rules, adoption of such rules would be arbitrary and capricious. As a threshold matter, given the Commission’s repeated findings that both the wireless market and the broadband market are competitive and that additional regulation would harm consumer welfare, the APA bars regulation absent a factual case for new rules. Specifically, the APA prohibits the Commission from adopting new regulations unless its decision is supported by “substantial evidence”<sup>238</sup> because, as the D.C. Circuit has explained, “[a] regulation perfectly reasonable and appropriate in the face of a given problem may be highly capricious if that problem does not exist.”<sup>239</sup> The “substantial evidence” threshold requires “more than a mere scintilla” of evidence.<sup>240</sup> Rather, “substantial” evidence “means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.”<sup>241</sup> When reviewing the factual basis for an agency’s action under this

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<sup>238</sup> See, e.g., *Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 168 (1962) (“The agency must make findings that support its decision, and those findings must be supported by substantial evidence.”); *Eagle Broad. Group, Ltd. v. FCC*, 563 F.3d 543, 551 (D.C. Cir. 2009) (noting the applicability of the substantial evidence standard to agency factfinding). As the leading case on the APA’s standards of review emphasizes, the “arbitrary and capricious” standard that governs the Commission’s actions here imposes the same burden with respect to fact-finding as the APA’s “substantial evidence” standard. See *Ass’n of Data Processing Service Org., Inc. v. Bd. of Governors of the Fed. Reserve Sys.*, 745 F.2d 677, 683 (D.C. Cir. 1984) (“[I]n their application to the requirement of factual support the substantial evidence test and the arbitrary or capricious test are one and the same. The former is only a specific application of the latter.... [The statutory provision setting forth ‘arbitrary and capricious’ test] enabl[es] the courts to strike down, as arbitrary, agency action that is devoid of needed factual support.”).

<sup>239</sup> *City of Chicago, Ill. v. Fed. Power Comm’n*, 458 F.2d 731, 742 (D.C. Cir. 1971); see also *HBO v. FCC*, 567 F.2d 9, 36 (D.C. Cir. 1977).

<sup>240</sup> *Universal Camera Corp. v. NLRB*, 340 U.S. 474, 477 (1951) (quotation marks omitted).

<sup>241</sup> *Id.*

standard, the “lodestar is the question whether the record as a *whole* provides substantial evidence to support the agency action.”<sup>242</sup>

In the context of this proceeding, the most critical fact concerning the mobile wireless Internet access marketplace is that, even in the absence of rules, there have not ever been substantial *allegations* of the kind of harm the proposed rules are meant to prevent. Not only is there not substantial evidence, there is no *actual* evidence at all in the record. The *status quo* for wireless broadband services – in which these offerings are freed from Title II common carrier requirements – dates back to early 2007 *at the latest*.<sup>243</sup> During that period, the Commission has repeatedly invited comment on any harm resulting from the absence of traditional common carrier regulation and the need for net neutrality requirements – to no avail.<sup>244</sup> Even following these requests, the *Open Internet NPRM* fails to cite *any* consumer harm involving wireless providers. Indeed, it cites no actual harms on any platform at all, aside from the 2005 “Madison River” incident (in which a single small ISP blocked VoIP traffic, apparently to benefit an affiliated LEC) and findings related to the efforts of Comcast and others to manage their networks in connection with use of BitTorrent, which once the mandate issues in *Comcast* will be wiped away as a result of the D.C. Circuit’s vacatur of the Commission’s order. Further, and

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<sup>242</sup> *Morall v. DEA*, 412 F.3d 165, 178 (D.C. Cir. 2005); *Safe Extensions, Inc. v. FAA*, 509 F.3d 593, 606 (D.C. Cir. 2007) (“In sum, because the agency’s decision . . . finds no support in the evidence the agency considered, we find it arbitrary and capricious.”). Indeed, the agency may not find substantial evidence for its position by focusing solely on the evidence that supports its decision. See *Lakeland Bus Lines, Inc. v. NLRB*, 347 F.3d 955, 962 (D.C. Cir. 2003).

<sup>243</sup> Although the *Wireless Broadband Classification Order* was issued in 2007, CTIA is not aware of any previous Commission treatment of a wireless broadband Internet access service as a telecommunications service.

<sup>244</sup> See, e.g., *Broadband Industry Practices*, Notice of Inquiry, 22 FCC Rcd 7894 (2007); *Comment Sought on Petition for Declaratory Ruling Regarding Internet Management Policies*, Public Notice, 23 FCC Rcd 340 (2008); *Comment Sought on Petition for Rulemaking to Establish Rules Governing Network Management Practices by Broadband Network Operators*, Public Notice, 23 FCC Rcd 343 (2008); *A National Broadband Plan for Our Future*, Notice of Inquiry, 24 FCC Rcd 4342, 4357-59 ¶¶ 47-48 (2009).

as noted above, commenters' claims of alleged harm in the wireless application approval process or from treatment of non-Internet traffic cannot be used to justify the proposed rules for Internet access services.

While there is no evidence of consumer harm in the wireless broadband marketplace, there is *substantial* evidence that the market is producing extensive consumer benefits arising from robust competition and rapid innovation<sup>245</sup> – evidence the FCC cannot simply ignore.<sup>246</sup> The Commission has consistently found the CMRS market to be effectively competitive,<sup>247</sup> and the evidence currently before the Commission supports a finding of robust competition throughout the wireless ecosystem.<sup>248</sup> There is no evidence of market failure that, under the FCC's own approach, would support a decision to impose new regulation.<sup>249</sup> Indeed, not only is there an absence of evidence justifying a regulatory solution, there is evidence that regulation here would impose costs and undermine the Commission's statutory goal of encouraging competition as well as its stated goal of promoting investment and innovation.<sup>250</sup>

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<sup>245</sup> See, e.g., CTIA Wireless Innovation Comments; Comments of CTIA, WT Docket No. 09-66 (Sept. 30, 2009).

<sup>246</sup> See, e.g., *Ill. Pub. Telecomms. Ass'n v. FCC*, 117 F.3d 555, 563-64 (D.C. Cir. 1997) (holding that the FCC acted arbitrarily and capriciously in adopting a rule unsupported by the evidence and without acknowledging contradictory evidence).

<sup>247</sup> See, e.g., *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services*, Thirteenth Report, 24 FCC Rcd 6185 (WTB 2009).

<sup>248</sup> See, e.g., *supra* note 245.

<sup>249</sup> See, e.g., *Orloff MO&O*, 17 FCC Rcd at 8997 ¶ 22 n.69 (stating that the Commission will generally “rel[y] on market forces, rather than regulation, except when there is a market failure”); see also *Second CMRS Report and Order*, 9 FCC Rcd at 1478 ¶ 173 (“[I]n a competitive market, market forces are generally sufficient to ensure the lawfulness of ... terms and conditions of service set by carriers who lack market power.”).

<sup>250</sup> See, e.g., *Office of Comm'n of United Church of Christ v. FCC*, 779 F.2d 702, 707 (D.C. Cir. 1985) (“Rational decisionmaking also dictates that the agency simply cannot employ means that actually undercut its own purported goals.”).

**b. Reliance on predictive judgment in the absence of factual support will not survive judicial review.**

Nor can the Commission simply issue a “predictive judgment” of future harm that it believes might arise in the absence of net neutrality rules to justify the application of those rules. While an agency’s predictive judgments may be afforded deference in the face of evidence that is ambiguous,<sup>251</sup> such judgments cannot serve as a *substitute* for evidence. The Commission must “provide at least some support for its predictive conclusions,” and such predictions will not stand where the agency “has not provided anything resembling support for its forecasts.”<sup>252</sup> “Simply put, the Commission needs to undergird its predictive judgment . . . with some evidence for that judgment to survive arbitrary and capricious review.”<sup>253</sup>

Here, however, a predictive judgment anticipating harm that has not in fact developed could not withstand judicial scrutiny. Courts have been particularly willing to reject predictive judgments where experience has failed to supply significant evidence of a harm predicted by the agency. In 2006, for example, the D.C. Circuit considered an FCC order penalizing BellSouth for its use of a special access pricing plan that purportedly violated federal law.<sup>254</sup> The Commission had held that a marketplace practice unlawfully favored smaller, growing providers such as BellSouth’s own long-distance affiliate, and would thus harm larger, established competitors such as legacy AT&T. However, the court found that the Commission failed to identify any company that had been injured by the practice, despite five years of data, and in the

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<sup>251</sup> *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 52 (1983) (“It is not infrequent that the available data do not settle a regulatory issue, and the agency must then exercise its judgment in moving from the facts and probabilities on the record to a policy conclusion.”).

<sup>252</sup> *Cincinnati Bell Tel. Co. v. FCC*, 69 F.3d 752, 760 (6th Cir. 1995).

<sup>253</sup> *Prometheus Radio Project v. FCC*, 373 F.3d 372, 409 (3d Cir. 2004).

<sup>254</sup> *See BellSouth Telecomms. Inc. v. FCC*, 469 F.3d 1052 (D.C. Cir. 2006).

absence of such evidence, the court could not credit the agency’s predictive judgment that the pricing plan would give rise to harm:

We cannot overlook the absence of record evidence showing that the [marketplace practice] harmed its putative victims simply because the Commission cast its analysis as a prediction of future trends – a prediction the Commission insists merits special deference. It is certainly true that “‘an agency’s predictive judgments about areas that are within the agency’s field of discretion and expertise’ are entitled to ‘particularly deferential’ review, as long as they are reasonable.” That said, *the deference owed agencies’ predictive judgments gives them no license to ignore the past when the past relates directly to the question at issue.*<sup>255</sup>

Here, as in that case, the Commission cannot ignore the past, a past that included 13 CMRS Competition Reports that detailed a fully functioning and sufficiently competitive CMRS marketplace.

Similarly, in 2002, the D.C. Circuit considered the Commission’s decision not to revoke its cable/broadcasting cross-ownership (“CBCO”) rule during the 1998 biennial review, notwithstanding its determination ten years earlier that “the rationale for an absolute prohibition on broadcast-cable cross-ownership is no longer valid in light of the ongoing changes in the video marketplace.”<sup>256</sup> The Commission had determined that the rule remained necessary, but it “pointed to only one instance in which a cable operator denied carriage to a broadcast station....”<sup>257</sup> In court, a cable operator argued that the single incident could not alone justify

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<sup>255</sup> *Id.* at 1060 (emphasis added) (internal citations omitted).

<sup>256</sup> *Amendment of Part 76, Subpart J, Section 76.501 of the Commission’s Rules and Regulations to Eliminate the Prohibition on Common Ownership of Cable Television Systems and National Television Network*, Report & Order, 7 FCC Rcd 6156, 6167 ¶ 17 (1992).

<sup>257</sup> *Fox Television Stations, Inc. v. FCC*, 280 F.3d 1027, 1050 (D.C. Cir. 2002) (“*CBCO Decision*”), modified on other grounds, 293 F.3d 537 (D.C. Cir. 2002).

retention of the CBCO rule; the Commission responded by “point[ing] to its predictive judgment that there would be more discrimination without the CBCO.”<sup>258</sup>

The court, however, remanded the Commission’s decision to retain the rule, finding that there was no basis for the Commission’s predictive judgment of consumer harm in the absence of the rule: “We acknowledge that the court should ordinarily defer to the Commission’s predictive judgments . . . . In this case, however, the Commission has not shown a substantial enough probability . . . to deem reasonable a prophylactic rule as broad as the cross-ownership ban, especially in light of the already extant conduct rules. 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 held in check only by the CBCO Rule.”<sup>259</sup>

Here, neither the Commission nor any commenters can cite to any wireless examples of conduct to warrant the Commission’s proposed rules, and in fact, can only cite to one case in the wireline context and one case in the cable context. The D.C. Circuit’s analysis is particularly apropos to the Commission’s proposed rules as they are as sweeping in their application to all broadband access providers as the CBCO rule was to all broadcast and cable operators. Just as with the CBCO rule, the Commission is considering broad prophylactic rules for wireless broadband to address predictive harms about which there is no evidence in the record.

The Commission thus must supply *some* evidence regarding the harm which a new regulation is meant to prevent, and courts will be especially skeptical where the harm predicted

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<sup>258</sup> *Id.* at 1051.

<sup>259</sup> *Id.* Notably, whereas here the statutory scheme weighs against regulation, the CBCO Decision was issued against the backdrop of statutory provisions imposing requirements similar to the CBCO rule – and the court still declined to credit the FCC’s predictive judgment. *See id.* at 1035.

could have arisen prior to adoption of the policy at issue but did not in fact arise. As in the cases discussed above, the harms apparently forming the basis for the *Open Internet NPRM*'s proposed wireless net neutrality requirements could have arisen since the advent of wireless broadband service, yet have not done so. In fact, as detailed above, the Commission has had numerous opportunities to highlight such concerns, including 13 CMRS Competition Reports, and has not done so. There is simply no basis for a "predictive judgment" that such harms will arise going forward, given the absence of such harms over the past several years. Just as the FCC could not reject BellSouth's practice on the basis of a prediction of *future* harm absent any *prior* harm, or base its CBCO rules on a "single incident" of harm, so too it cannot adopt the proposed wireless neutrality rules based on a "predictive judgment" of harm here, where there has been virtually no evidence of past harms.<sup>260</sup>

**c. Adoption of Net Neutrality rules would be an unsupportable reversal of course, particularly in light of the Commission's findings in adopting the Upper 700 MHz C Block rules and in the *Wireless Broadband Classification Order*.**

The Commission's burden in adopting access and non-discrimination mandates with respect to wireless broadband Internet access would be especially heavy here, where it acknowledged its own lack of authority to impose common carrier regulations on wireless broadband, where it recently determined that broad-based application of such rules was not appropriate, and where parties have bid on spectrum in reliance on the absence of such requirements.

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<sup>260</sup> Imposing net neutrality rules based on a predictive judgment in the wireless context would be particularly challenging given the robust competition and dynamic innovation occurring in all sectors of the wireless ecosystem. Wireless broadband providers must provide offerings and options that consumers desire; otherwise they will leave for another provider.

The APA imposes special requirements on agencies reversing their prior decisions. In particular, “[i]f the FCC changes course, it ‘must supply a reasoned analysis’ establishing that prior policies and standards are being deliberately changed,”<sup>261</sup> because “a rational person acts consistently, and therefore changes course only if something has changed.”<sup>262</sup> “Indeed, where an agency departs from established precedent without a reasoned explanation, its decision will be vacated as arbitrary and capricious.”<sup>263</sup> The Supreme Court’s recent decision in *FCC v. Fox Television Stations, Inc.* underscores the importance of this APA requirement.<sup>264</sup> There, the Court made it clear that the FCC must “display awareness that it *is* changing position” and that it may not “depart from a prior policy *sub silentio* or simply disregard rules that are still on the books;” otherwise, its actions will not survive APA review.<sup>265</sup> The Commission’s *Wireless Broadband Classification Order*, issued just three years ago, squarely addressed the issue of application of common carrier regulation to wireless broadband services, finding no authority under Section 3 of the Act to apply common carrier regulation to information services like wireless broadband. Specifically, the Commission stated that “under Section 3, [a] service

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<sup>261</sup> *Verizon Tel. Cos.*, 570 F.3d at 301 (quoting *Motor Vehicle Mfrs. Ass'n, Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. at 57; see also *Wis. Valley Improvement v. FERC*, 236 F.3d 738, 748 (D.C. Cir. 2001) (“[A]n agency acts arbitrarily and capriciously when it abruptly departs from a position it previously held without satisfactorily explaining its reason for doing so.”); *Telecomms. Research and Action Ctr. v. FCC*, 800 F.2d 1181, 1184 (D.C. Cir. 1986) (“When an agency undertakes to change or depart from existing policies, it must set forth and articulate a reasoned explanation for its departure from prior norms.”)).

<sup>262</sup> *Schurz Commc'ns, Inc. v. FCC*, 982 F.2d 1043, 1053 (7th Cir. 1992).

<sup>263</sup> *ANR Pipeline Co. v. FERC*, 71 F.3d 897, 901 (D.C. Cir. 1995); *Verizon Tel. Cos.*, 570 F.3d at 304 (“[I]t is arbitrary and capricious for the FCC to apply such new approaches without providing a satisfactory explanation when it has not followed such approaches in the past.”).

<sup>264</sup> 129 S. Ct. 1800.

<sup>265</sup> *Id.* at 1811. In *Fox*, the Court determined that the FCC satisfied these requirements because “the Commission forthrightly acknowledged that its recent actions have broken new ground” and supplied a sufficiently reasoned basis for doing so. *Id.* at 1812.

provider is to be treated as a common carrier for the telecommunications services it provides, but it cannot be treated as a common carrier with respect to other, non-telecommunications services it may offer, including information services.”<sup>266</sup> This conclusion followed the approach of former Chairman Kennard to not regulate broadband.<sup>267</sup> Commission action to apply the common carrier regulation proposed by the *Open Internet NPRM* would be a complete reversal of established Commission precedent and interpretation of the Act. Moreover, the regulatory environment more recently envisioned by the 700 MHz rules has not yet come to fruition, as that spectrum has not yet been brought to market. Accordingly, there can be no “reasoned explanation” for the Commission’s departure from its own recently established precedent.

Of particular importance here, the *Fox* decision called out two special contexts in which an agency might be required to provide even more explanation than usual when changing course. “Sometimes,” the Court noted, an agency must “provide a more detailed justification than what would suffice for a new policy created on a blank slate” – “when, for example, its new policy rests upon factual findings that contradict those which underlay its prior policy; or when its prior policy has engendered serious reliance interests that must be taken into account . . . . It would be arbitrary or capricious to ignore such matters. In such cases it is not that further justification is demanded by the mere fact of policy change; but that a reasoned explanation is needed for disregarding facts and circumstances that underlay or were engendered by the prior policy.”<sup>268</sup> Any decision to impose net neutrality requirements on wireless broadband providers here would implicate both of the circumstances *Fox* recognized could require additional justification,

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<sup>266</sup> *Wireless Broadband Classification Order*, 22 FCC Rcd at 5919 ¶ 50.

<sup>267</sup> William Kennard, *The Road Not Taken: Building a Broadband Future for America*, FCC (June 15, 1999), <http://www.fcc.gov/Speeches/Kennard/spwek921.html>.

<sup>268</sup> *Fox*, 129 S. Ct at 1811.

because such a decision would (1) reflect new factual premises contradicting previous premises and (2) disrupt established reliance interests.

First, as CTIA explained in its opening Comments,<sup>269</sup> rules based on claimed harms here would directly contravene the FCC’s 2007 factual conclusions supporting its ruling that universally applicable wireless net neutrality rules were unwarranted.<sup>270</sup> A decision to reverse course on this limited approach, only two years into the Upper C Block experiment and prior to *any* commercial service launch to consider the “real-world effects” of the C Block rules, would necessarily entail a wholly new factual understanding, subject to the heightened evidentiary standard cited in *Fox*.

Second, the adoption of neutrality requirements would disrupt “serious reliance interests that must be taken into account.”<sup>271</sup> As noted, the Commission expressly determined in the context of the 700 MHz spectrum auction that the Upper C Block spectrum – and *only* that spectrum – would be subject to open platform requirements. The bidding strategies of that auction’s participants reflected the distinctions between that spectrum block and other blocks at auction: bidders paid substantially less for Upper C Block spectrum (\$0.76/MHz/POP) than, for example, B Block spectrum (\$2.68/MHz/POP). In short, the evidence demonstrates that these bidders relied on the expanded set of opportunities presented by spectrum that the Commission had expressly determined would not be encumbered by “open platform” requirements of the sort contemplated here. Any effort to impose such requirements would thus disrupt these settled expectation interests and heighten the burden faced by the Commission here.

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<sup>269</sup> CTIA Comments at 25-27.

<sup>270</sup> *See supra* Section I.A.

<sup>271</sup> *Fox*, 129 S. Ct. at 1811.

**D. The Problems Identified Above Cannot Be Cured By Reclassifying Broadband Internet Access Services.**

In this proceeding and elsewhere, some parties have suggested that the Commission should abandon its long series of decisions classifying broadband Internet access services as integrated “information services” and determine that such offerings instead involve the bundling of a “telecommunications service” transmission component and a distinct “information service” component riding on that transmission capacity.<sup>272</sup> The Commission is not, however, at liberty to reclassify broadband Internet access service; even if it were, this approach would not afford the Commission a lawful basis for imposing the rules contemplated in the *Open Internet NPRM*.

**1. Reclassification of Broadband Internet Access Service Would Be Inappropriate and Unsustainable.**

The factors that led the Commission to classify broadband Internet access offerings as integrated information services in at least four separate orders – and that led the Supreme Court to uphold this classification – remain in full force, and warrant the same result today. For example, the *Cable Modem Order*<sup>273</sup> (which established the reasoning governing future classification orders and was the subject of the Supreme Court’s *Brand X* decision) reaffirmed the Commission’s earlier conclusion that “Internet access service is appropriately classified as an information service, because the provider offers a single, integrated service, Internet access, to the subscriber. The service combines computer processing, information provision, and computer

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<sup>272</sup> See, e.g., 4Info Comments at 12; CDT Comments at 22; Free Press Comments at 31-32; Comments of Prof. Barbara A. Cherry, GN Docket No. 09-191, at 5-8 (Jan. 14, 2010); Comments of Public Interest Commenters, GN Docket No. 90-191, at 5, 20-21 (Jan. 14, 2010) (“PIC Comments”); Reply Comments of Public Knowledge, GN Dkt. No. 09-47 (Jan. 26, 2010).

<sup>273</sup> *Cable Modem Order*, 17 FCC Rcd 4798.

interactivity with data transport, enabling end users to run a variety of applications.”<sup>274</sup> The

Commission underscored the integration of the service’s transmission and processing elements:

We find that cable modem service is an offering of Internet access service, which combines the transmission of data with computer processing, information provision, and computer interactivity, enabling end users to run a variety of applications. As currently provisioned, cable modem service supports such functions as e-mail, newsgroups, maintenance of the user's World Wide Web presence, and the DNS. Accordingly, we find that cable modem service, an Internet access service, is an information service. This is so regardless of whether subscribers use all of the functions provided as part of the service, such as e-mail or web-hosting, and regardless of whether every cable modem service provider offers each function that could be included in the service. As currently provisioned, cable modem service is a single, integrated service that enables the subscriber to utilize Internet access service through a cable provider's facilities and to realize the benefits of a comprehensive service offering.<sup>275</sup>

Indeed, the service’s “telecommunications component is not . . . separable from the data-processing capabilities of the service”; rather, “[a]s provided to the end user the telecommunications is part and parcel of cable modem service and is integral to its other capabilities.”<sup>276</sup>

The Supreme Court found this analysis reasonable: The Commission had been charged with determining whether cable modem providers “offered” transmission and processing, or only an integrated transmission/processing service, and its choice in favor of the latter comported with ordinary usage: “It is common usage to describe what a company ‘offers’ to a consumer as what the consumer perceives to be the integrated finished product, even to the exclusion of discrete

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<sup>274</sup> *Id.* at 4821 ¶ 36.

<sup>275</sup> *Id.* at 4822-23 ¶ 38.

<sup>276</sup> *Id.* at 4823 ¶ 39.

components that compose the product....”<sup>277</sup> In the case of cable modem service, the Court held, the transmission element and the finished product were sufficiently integrated “to make it reasonable to describe the two as a single, integrated offering.”<sup>278</sup> This result was also supported by the Commission’s historic distinction between “basic” and “enhanced” services – the distinction codified by the 1996 Act’s “telecommunications service” and “information service” categories – because “enhanced” services had always involved some transmission.<sup>279</sup>

Following *Brand X*, the Commission applied the basic reasoning of the *Cable Modem Order* (and the Court’s decision) to other broadband platforms. For example, when assessing mobile wireless broadband service, the Commission cited prior holdings “that cable, wireline, and BPL providers offered broadband Internet access as a single, integrated service (*i.e.*, Internet access) that inextricably combined the transmission of data over cable or wireline networks with computer processing, information provision, and computer interactivity, enabling end users to run a variety of Internet applications such as email, newsgroups, and interaction with or hosting of web pages.”<sup>280</sup>

Parties urging reclassification of broadband Internet access service recognize that such action would require the FCC to “change course”<sup>281</sup> yet they have failed to present any basis for reversing course. The Public Interest Commenters argue that the Commission’s original classification of broadband as a Title I information service was based “on the assumption that it

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<sup>277</sup> *Brand X*, 545 U.S. at 990.

<sup>278</sup> *Id.*

<sup>279</sup> *See id.* at 992-93.

<sup>280</sup> *Wireless Broadband Classification Order*, 22 FCC Rcd at 5910 ¶ 25 (internal citations omitted).

<sup>281</sup> *See, e.g.*, CDT Comments at 22.

retained sufficient authority to protect the open Internet” and “on judgments with regard to the integration of transmission and information service and its predictive judgment that deregulation would encourage the creation of a robustly-competitive facilities based broadband market.”<sup>282</sup> They contend that reclassification would be justified as these alleged assumptions have been called into question.<sup>283</sup>

As a preliminary matter, reclassification would require a new NPRM because it is beyond the scope of this proceeding, as even proponents of reclassification acknowledge.<sup>284</sup> Reclassification of wireless broadband Internet service was “neither discussed nor mentioned” nor was it “touched upon in any of the rules proposed.”<sup>285</sup> Thus, if any final rule in this proceeding were to reclassify wireless broadband Internet service as a telecommunications service, it would fail the “logical outgrowth” test since notice must come “from the agency” rather than from “isolated comments” alone.<sup>286</sup>

Second, providers of facilities-based broadband Internet access offer such service in the same manner today as they did when the Commission described these services in its classification orders: As composite services offering transmission married to processing, retrieval, storage, and similar functionalities rendering the entire offering an integrated information service. As Verizon and Verizon Wireless explained in their opening comments, “the Commission’s prior conclusion that, under the terms of the statute, transmission is part and parcel of a single integrated Internet access service offered to consumers – and not a separate

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<sup>282</sup> PIC Comments at 5.

<sup>283</sup> *Id.*

<sup>284</sup> *See, e.g.*, CDT Comments at 22.

<sup>285</sup> *Kooritzky v. Reich*, 17 F.3d 1509, 1513 (D.C. Cir. 1994).

<sup>286</sup> *AFL-CIO v. Donovan*, 757 F.2d 330, 339-40 (D.C. Cir. 1985).

‘telecommunications service’ – remains true”<sup>287</sup> and “there is no evidence of market power in the provision of broadband transmission services or the lack of availability of such services to service providers that would justify such a reversal of position.”<sup>288</sup> Reclassification would require the Commission to contradict flatly the analysis described above – analysis that the Supreme Court has found to be not only reasonable, but most consistent with ordinary usage and the Commission’s longstanding treatment of services combining processing and transmission.

At bottom, the arguments asserted by proponents of reclassification all boil down to the fact that they wish to impose certain regulations, and recognize that such regulations are not permissible under the current classification regime. They therefore seek to upend the existing policy framework and reclassify broadband services so that the desired regulation will (in their view) become lawful. This approach, however, would turn the classification inquiry on its head. There is no question that an agency “may not construe [a] statute in a way that completely nullifies textually applicable provisions meant to limit its discretion.”<sup>289</sup> And “without reference to the provisions of the Act” defining the type of service, “the Commission’s jurisdiction . . . would be unbounded.”<sup>290</sup> Congress directed the Commission to apply its legal terms in good faith, and then to regulate services accordingly – not to determine which regulations it wished to apply and then to select the best classification in pursuit of those ends. The Commission has repeatedly defined information services in a consistent manner. To reverse course now, simply

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<sup>287</sup> Verizon Comments at 96-97 (citing *Cable Modem Order*, 17 FCC Rcd at 4823 ¶¶ 39-40, 4831-32 ¶ 58).

<sup>288</sup> *Id.* at 97.

<sup>289</sup> *Sierra Club v. EPA*, 551 F.3d 1019, 1028 (D.C. Cir. 2008), cert. denied sub nom. *Am. Chemistry Council v. Sierra Club*, No. 09-495, 2010 WL 757699 (U.S. Mar. 8, 2010) (internal quotations and citations omitted).

<sup>290</sup> *Midwest Video II*, 440 U.S. at 706.

to allow for the application of regulation, would violate the limitations highlighted in *Midwest Video II*.

Finally, any attempt to reverse the Commission’s prior classification orders, issued over the course of five years, would face particularly high hurdles under the Supreme Court’s *Fox* decision. As explained above, the *Fox* Court required an agency to “provide a more detailed justification than what would suffice for a new policy created on a blank slate” when the “new policy rests upon factual findings that contradict those which underlay its prior policy,” and “when its prior policy has engendered serious reliance interests that must be taken into account.”<sup>291</sup> Both of these factors apply here. First, as discussed above, the Commission’s classification decisions were based expressly on factual determinations regarding the extent to which broadband Internet access services combine transmission and processing.<sup>292</sup> A reversal would necessarily require support for a new factual understanding. But, as noted above, there is no support to be found on this point, because these offerings are made available on the same terms today as they have been for years.

Second, not only have parties relied on the existing classification of broadband Internet access, but the Commission affirmatively *invited* them to do so. The Commission’s classification orders have expressly cited the fact that the “information services” classification and related deregulation would promote deployment of broadband facilities. The *Cable Modem Order*, for example, emphasized the Commission’s belief that “broadband services should exist in a minimal regulatory environment that promotes investment and innovation in a competitive market,” and sought “to remove regulatory uncertainty that in itself may discourage investment

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<sup>291</sup> *Fox*, 129 S. Ct. at 1811.

<sup>292</sup> *Cable Modem Order*, 17 FCC Rcd at 4823 ¶ 39-40, 4831-32 ¶ 58.

and innovation.”<sup>293</sup> In the *Wireline Broadband Order*, the Commission explained that its conclusions would “allow facilities-based *wireline broadband* Internet access service providers to respond to changing marketplace demands effectively and efficiently, *spurring them to invest in and deploy innovative broadband capabilities that can benefit all Americans*.”<sup>294</sup> Indeed, the Commission based its decision in part on its view that classification of broadband Internet access as an “information service” and the removal of *Computer Inquiry*-era access obligations would prompt providers to “take more risks in investing in and deploying new technologies than they are willing and able to take under the existing regime.”<sup>295</sup> In short, the Commission issued orders intended to assure providers that new broadband facilities would *not* be subject to common carrier regulation, and to thereby promote deployment. Providers responded as the Commission had hoped, deploying fixed and mobile wireless broadband capacity at an unprecedented rate. Parties seeking reclassification would have the Commission renege on this commitment, upsetting the very reliance its orders were intended to generate. Under *Fox*, this result would be subject to substantially heightened scrutiny.

## **2. Reclassification of Broadband Internet Access Service Would Not Enable the Commission to Adopt the Rules Contemplated Here.**

Finally, reclassification of broadband Internet access into severable “telecommunications service” and “information service” components would not give the Commission any new authority to adopt the rules at issue in this proceeding, because those rules would regulate the information service, not the underlying transmission. As the Act makes clear, the

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<sup>293</sup> *Id.* at 4802 ¶ 5 (internal quotation marks omitted).

<sup>294</sup> *Wireline Broadband Order*, 20 FCC Rcd at 14855 ¶ 1 (emphasis added).

<sup>295</sup> *Id.* at 14891 ¶ 72. *See also id.* at 14877-78 ¶ 44 (observing that “the additional costs” imposed by the regulations applicable under the then-existing regime “diminish a carrier’s incentive and ability to invest in and deploy broadband infrastructure...”); *id.* at 14897 ¶ 83 (citing “the increased infrastructure investment that our new framework should generate”).

“telecommunications service” component of a reclassified broadband Internet access offering would include only “transmission . . . of information of the user’s choosing, without change in the form or content of the information as sent and received.”<sup>296</sup> In contrast, the functions associated with the provision of applications and content over the transmission facility require the “capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information,” and therefore would remain “information service[s].”<sup>297</sup> The rules under consideration here clearly belong in the latter class: A rule guaranteeing the user access to the content or applications of her choice would regulate the broadband provider’s provision of services designed to process and retrieve information (*i.e.*, from a third-party content or applications provider). The same would be true of a rule barring discrimination as between different application and content streams. Likewise, efforts to cabin a provider’s discretion to manage its network would necessarily interfere with the information-processing aspects of broadband service: to conduct such management, providers must examine markers and other information associated with the packets at issue and act upon those packets based on the information discovered. In short, then, the rules considered here would purport to regulate the aspect of broadband Internet access that would continue to be deemed an information service. Those rules would therefore be no more permissible following reclassification than they would have been before.<sup>298</sup>

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<sup>296</sup> 47 U.S.C. § 153(43).

<sup>297</sup> *See id.* § 153(20).

<sup>298</sup> Even the transmission component of a reclassified broadband Internet access offering would only be subject to the section 202 bar against *unreasonable* discrimination, rather than to a broader ban on any disparate treatment of traffic. As many parties have emphasized, there are many *reasonable* bases for discriminating among different classes of Internet traffic. These reasons are even more pressing in the context of mobile wireless broadband service, because capacity limitations and shared use of spectrum necessitate active management of both the nature and magnitude of the traffic carried.

The Commission's proposed rules attempt to impose common carrier, non-discrimination regulations on broadband Internet access providers which represents a wholesale change from the FCC and Congress's established policies for both wireless and the Internet. Because the Commission lacks the authority under both Titles III and I of the Communications Act to impose these rules, it should refrain from any action to impose the rules proposed in the *Open Internet NPRM* to wireless broadband Internet access providers.

