

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

In the Matter of)
Protecting and Promoting the Open Internet) GN Docket No. 14-28
)
)

REPLY COMMENTS OF MOBILE FUTURE

Mobile Future¹ submits the following reply comments in response to the Commission’s Notice of Proposed Rulemaking on the adoption of new open Internet rules.² The record in this proceeding reflects broad consensus that maintaining an open Internet is essential to consumers and critical to the U.S. economy. While some parties disagree as to how best to achieve this goal, the underlying goal is not in question.

There also is wide agreement that additional regulation in the mobile broadband sector is unnecessary, as vigorous competition drives and necessitates openness, while existing government enforcement tools and regulatory frameworks more than adequately safeguard it. Competition, along with regulatory restraint, has spurred unprecedented investment and innovation in the mobile broadband marketplace for the past two decades, including over the past four years since the Commission adopted its open Internet rules, and has enabled providers to offer innovative and consumer-friendly service options. All of this has benefitted American consumers.

Access to the Internet via mobile wireless providers in the U.S. has always been and will continue to remain open, ever since Research in Motion launched the first phone-based email

¹ Mobile Future is an association of businesses, non-profit organizations and individuals interested in and dedicated to advocating for an environment in which innovation and investment in wireless technology and services are enabled and encouraged.

² *Protecting and Promoting the Open Internet*, Notice of Proposed Rulemaking, 29 FCC Rcd 5561 (2014).

access to American consumers in 2001. This was the case before, during, and after the Commission’s adoption of the 2010 open Internet rules, both with and without the rules in effect. There is no market failure in this highly competitive environment, and therefore no need for the Commission to impose additional regulatory burdens.

Further, as the FCC concluded in 2010, mobile is fundamentally different from wireline networks. On a basic engineering level, mobile broadband networks are unique technically and differ from their wireline counterparts. As demonstrated in the recently released Rysavy Research Paper, “[m]obile broadband networks differ from wireline networks in a number of fundamental ways,”³ and “[p]olicies arising from overlooking this difference could have multiple and prolonged negative consequences to mobile consumers and our economy.”⁴ Mobile networks are constantly evolving and face highly differentiated technological and operational attributes, which demand regulatory restraint to afford operators the flexibility to manage their networks to enhance their consumers’ experience. Mobile providers face spectrum constraints as well as considerable challenges posed by consumers that are, by definition, constantly mobile. Providers who furnish service over high-capacity cable and fiber facilities simply do not share these attributes. Since the 2010 rule, these differences have only deepened due to the increasing capacity demands being imposed on networks, the rise in adoption of mobile platforms, services, and devices across all categories, the advent of the so-called “Internet of Everything” and the growing mobility of American wireless consumers today. Despite these facts, should the Commission nevertheless choose to impose new regulations on mobile broadband services, those

³ Rysavy Research, *How Wireless is Different: Considerations for the Open Internet Rulemaking*, at 4 (Sept. 4, 2014) (“Rysavy Research Paper”).

⁴ *Id.* at 3.

rules should, at most, reinstate the 2010 no-blocking rule, maintaining carrier flexibility to respond to network and market conditions.

Finally, to most effectively safeguard the open Internet, the Commission should refrain from reclassifying mobile broadband service as a “telecommunications service” subject to Title II of the Communications Act of 1934, as amended (the “Act”). By subjecting huge swaths of Internet innovation to sweeping new rules, such reclassification will increase uncertainty across large swaths of the Internet ecosystem as well its supply chain, and could hamper investment, stall innovation, harm consumers, and ultimately endanger a globally open Internet. Any attempt by the Commission to impose Title II common carriage obligations on mobile broadband service would violate the Act. Section 332 prohibits common carrier treatment of private mobile radio services, including mobile broadband.

I. There is Broad Consensus that the Proposed Open Internet Rules, Including Title II Regulation, Should Not Apply to the Competitive, Dynamic Wireless Sector.

A broad range of commenters agree that open Internet rules are not necessary in the competitive wireless sector, and that burdensome regulations would stifle the explosive growth and innovation the sector has experienced. Several commenters echo Mobile Future’s initial comments detailing the substantial investment, rapid deployment, and robust competition in the market and urge the Commission to refrain from imposing new unnecessary and overly-burdensome regulations.

A. The Record Demonstrates Extraordinary Investment, Deployment, and Competition in the Mobile Broadband Market.

The mobile broadband market continues to thrive. Increasing numbers of carriers are deploying mobile broadband service and coverage continually expands. Nearly the entire United

States population can choose among at least three mobile broadband providers.⁵ And even as 4G LTE deployment continues, the industry is looking ahead to the next generation of mobile broadband service that promises to better serve consumers and further enhance competition throughout the broadband market.

The record in this proceeding demonstrates that in the four years since the 2010 open Internet rules, wireless broadband deployment, adoption, and innovation have proliferated, as well as remarkable levels of investment in mobile broadband, exceeding nearly all other sectors of the United States economy.⁶ Commenters, including several Mobile Future member companies, emphasized that, “investment and innovation have been extraordinarily strong in the mobile wireless ecosystem, both before the 2010 rules and after.”⁷ For example, Mobile Future member Cisco Systems, Inc. (“Cisco”) highlighted the historic levels of investment made by mobile providers and stated, “[t]he U.S. broadband ecosystem is extraordinarily vibrant with network providers maintaining remarkable levels of capital investment as they upgrade and expand their networks.”⁸ AT&T Services, Inc. (“AT&T”) noted that “annual investment in U.S. wireless networks grew more than 40 percent between 2009 and 2012”⁹ and that the Commission anticipates “[p]rivate investment in mobile wireless infrastructure over the next five years will

⁵ In October 2012, 92 percent of the United States population was covered by at least three mobile broadband providers. *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Sixteenth Report, 28 FCC Rcd 3700, 3749 ¶ 4 (2013).

⁶ See White House, Office of Science and Technology Policy & The National Economic Council, *Four Years of Broadband Growth*, at 2 (June 2013), http://www.whitehouse.gov/sites/default/files/broadband_report_final.pdf (“OSTP Broadband Report”). Annual investment in U.S. wireless networks grew to \$30 billion in 2012, which exceeded investment by the major oil and gas or auto companies. *Id.*

⁷ Comments of AT&T Services, Inc., GN Docket No. 14-28, at 19 (dated July 15, 2014) (“AT&T Comments”).

⁸ Comments of Cisco Systems, Inc., GN Docket No. 14-28, at 3 (dated July 17, 2014) (“Cisco Comments”).

⁹ AT&T Comments at 19, *citing* OSTP Broadband Report at 2.

generate \$1.2 trillion in economic growth and create 1.2 million jobs.”¹⁰ Verizon and Verizon Wireless (collectively “Verizon”) stated that as of the end of 2013, wireless providers had invested nearly \$400 billion to build and upgrade their networks and have invested four times more in their networks per subscriber than the global average, all while prices have plummeted.¹¹ Alcatel-Lucent highlighted the continued deployment of new technologies in the absence of heavy-handed regulation, stating, “U.S. operators are constantly upgrading their networks, leading to U.S. global leadership in 4G LTE – the most efficient technology for providing broadband to mobile devices. And even before the nationwide LTE build-out was complete, the leading operators began deploying LTE-Advanced capabilities, allowing aggregation of multiple radio channels and radio carriers, as well as improved interference cancellation.”¹² Cisco noted that “[t]he mobile broadband market is especially innovative and is continuing to evolve at breathtaking speed. Since the 2010 *Order*, the wireless industry has widely deployed 4G service with a corresponding increase in data consumption.”¹³ And Ericsson stated, “[b]y every measure, the mobile broadband market in the U.S. continues to be the envy of the world in terms of competition, innovation, and investment. There are multiple facilities-based providers offering a dizzying array of plans and services differentiated by service tiers, speeds, and billing arrangements.”¹⁴

Investment and deployment in mobile broadband are driven by intense competition in the marketplace that empowers consumers to react to any carrier action that tried to limit Internet

¹⁰ AT&T Comments at 19, *citing* FCC, Fact Sheet: Internet Growth and Investment (Feb. 19, 2014), https://apps.fcc.gov/edocs_public/attachmatch/DOC-325653A1.pdf.

¹¹ Comments of Verizon and Verizon Wireless, GN Docket No. 14-28, at 41-42 (dated July 15, 2014) (“Verizon Comments”).

¹² Comments of Alcatel-Lucent, GN Docket No. 14-28, at 7 (dated July 15, 2014) (“Alcatel-Lucent Comments”).

¹³ Cisco Comments at 21 (citation omitted).

¹⁴ Comments of Ericsson, GN Docket No. 14-28, at 10 (dated July 17, 2014).

openness. According to T-Mobile USA, Inc. (“T-Mobile”), “[c]ompetition in the mobile broadband marketplace has also prompted providers to ensure that customers are able to move from one carrier to another.”¹⁵ AT&T, T-Mobile, Verizon, Sprint, and U.S. Cellular, agreed to new phone unlocking principles in 2013¹⁶ and T-Mobile launched a new service lineup at the end of 2013 that eliminated annual service contracts and early termination fees.¹⁷ T-Mobile has added more than 1 million customers during each of the preceding four quarters, making it the fastest growing wireless company in the United States.¹⁸

B. New Open Internet Regulations Are Unwarranted in the Vibrantly Competitive Mobile Broadband Sector and Would Hamper Investment and Innovation.

The dynamically competitive market for mobile broadband services makes it essential that mobile providers both are free and encouraged to experiment with additional service offerings and business models. For example, providers should remain free to respond to consumer demand by offering tiered pricing, advertisement-supported services, sponsored data plans, and other innovative approaches to pricing.¹⁹ T-Mobile and AT&T are among those competitors already experimenting with such consumer-friendly arrangements. Consumers who frequently stream music are already benefitting from T-Mobile’s Music Freedom plan, which exempts music services from monthly data allowances.²⁰ AT&T is offering a new sponsored data program that allows consumers to access sponsored content without the associated data

¹⁵ Comments of T-Mobile USA, Inc., GN Docket No. 14-28, at 3 (dated July 18, 2014) (“T-Mobile Comments”).

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ Maggie Smith, *T-Mobile Adds 1.3 Million Monthly Subscribers, More Than AT&T and Verizon Combined*, *Forbes*, May 1, 2014, available at <http://www.forbes.com/sites/maggiemcgrath/2014/05/01/t-mobile-adds-1-3-million-monthly-subscribers-more-than-att-and-verizon-combined/>.

¹⁹ See Verizon Comments at 30-31.

²⁰ T-Mobile Newsroom, *T-Mobile Sets Your Music Free*, (June 18, 2014), <http://newsroom.t-mobile.com/news/t-mobile-sets-your-music-free.htm>.

usage counted against their monthly allowance.²¹ Imposing rigid open Internet rules on wireless companies could prohibit these types of innovations and prevent future ones.

Several commenters urged the Commission not to apply burdensome new regulations to the dynamic, competitive wireless sector, explaining that they are both unnecessary and would deter investment and innovation. The Competitive Carriers Association (“CCA”) asserts that “[a]dditional changes to the transparency and disclosure rules for broadband services are also unnecessary because consumers have the ability to ‘vote with their feet’ if they think that a mobile broadband Internet provider is not serving their needs to freely connect to an open Internet.”²² The Consumer Electronics Association cautions that, “mobile broadband providers in particular, must be allowed to develop their service offerings based on consumer demand and evolving technologies, not based on common carrier requirements.”²³ AT&T explained that “[t]he massive investments in state-of-the-art mobile networks are not happening in a vacuum; they are indicative of an intensely competitive marketplace for mobile broadband Internet access services.”²⁴ Additional regulation on wireless broadband could deter investment and would be harmful to providers and consumers in this competitive environment.²⁵ And Qualcomm Incorporated (“Qualcomm”) urged that “[b]ecause the mobile broadband ecosystem is an

²¹ AT&T, Sponsored Data, <http://www.att.com/att/sponsoreddata/en/index.html#fbid=CEI6IqjuT98> (last visited Sept. 9, 2014).

²² Comments of the Competitive Carriers Association, GN Docket No. 14-28, at 9 (dated July 16, 2014) (“CCA Comments”).

²³ Comments of the Consumer Electronics Association, GN Docket No. 14-28, at 13 (dated July 15, 2014).

²⁴ AT&T Comments at 21.

²⁵ AT&T explained, “[t]here can be little dispute on the threshold point that prescriptive government regulation entails significant social costs. Those well-documented costs, moreover, increase exponentially when the government attempts to regulate a technologically evolving field (like the Internet).” *Id.* at 14-15.

increasingly competitive marketplace, there is no need to impose additional regulatory burdens on this key sector of our economy.”²⁶

Those commenters calling for enhanced regulation, such as Public Knowledge and Mozilla, discount the competitive and dynamic nature of the mobile broadband marketplace. Some argue that the vast proliferation and rapid development of mobile broadband service over the past four years is a basis for enhanced regulations,²⁷ even though the market actually developed to its present form in the absence of those very same regulations.²⁸ This proposition contradicts reason. A light touch regulatory approach has worked to spur investment and innovation and further drive competition in the nascent wireless broadband market to the benefit of American consumers. In fact, U.S. mobile network connection speeds averaged 2.6 Mbps in 2012 – the fastest average in the world.²⁹

This “light-touch” approach remains not only fully compatible with an open and dynamic Internet, but it has proven itself the most efficient and effective way to protect online freedom and speed innovation. In fact, as broadband and mobile have flourished, not a single formal complaint has been filed with the Federal Communications Commission alleging a violation of the open Internet rules since it formally adopted those rules in 2010.

The Commission should not change course now.

²⁶ Comments of Qualcomm Incorporated, GN Docket No. 14-28, at 5 (dated July 15, 2014) (“Qualcomm Comments”).

²⁷ Comments of Public Knowledge, et al., GN Docket No. 14-28, at 25 (dated July 15, 2014).

²⁸ See Alcatel-Lucent Comments at 7.

²⁹ OSTP Broadband Report at 6.

II. Mobile Broadband Providers Face Unique Technological and Operational Challenges That Require Flexibility to Manage Networks to Enhance Consumers' Experience.

There is ample evidence in the record demonstrating that mobile broadband providers face unique challenges related to managing limited holdings of finite spectrum resources, multiple users sharing that spectrum, and the challenge of accommodating an inherently mobile consumer base. As the Telecommunications Industry Association noted, “[w]hile it is true that mobile has dramatically expanded as a data service since 2010, it also is true that wireless networks’ special engineering challenges remain even as traffic demands have sharply escalated.”³⁰

First, mobile providers are constrained by spectrum, a finite resource. CCA notes that “[a]lthough the Commission is making strides towards unleashing additional spectrum for commercial wireless use, wireless carriers currently find themselves in the midst of a well-documented ‘spectrum crunch.’”³¹ Alcatel-Lucent recognizes that “[w]ireless broadband services are constrained by limited and dynamically changing radio resources shared among multiple users, and service providers need to be free to manage their networks in order to meet the current and expected consumer demand and service quality obligations.”³² The equipment company also recognizes that the basic physics of wireless networks limits available bandwidth and that the “need of wireless operators to manage network capacity must continue to be recognized.”³³

Second, the “shared nature of a mobile broadband network, and the role played by customer-selected devices, also create unique and significant engineering and network

³⁰ Comments of the Telecommunications Industry Association, GN Docket No. 14-28, at 27 (dated July 15, 2014).

³¹ CCA Comments at 4 (citation omitted).

³² Alcatel-Lucent Comments at 25.

³³ *Id.* at 25.

management challenges that must be addressed on a dynamic basis. One user or application can impede the services of other network users. Heavy bandwidth applications such as streaming video and gaming, even if used by a small percentage of users, can monopolize capacity to the detriment of other users and services.”³⁴ For example, just 5 percent of subscribers streaming YouTube at a modest 480p resolution in a typical LTE sector can consume the total capacity of that sector.³⁵

These technological and operational challenges dictate that mobile providers operate in a flexible regulatory environment. As T-Mobile explains, “[t]he distinctive nature of mobile wireless networks and services continues to counsel against imposing additional regulations on mobile broadband providers. Rather, mobile ISPs must maintain the flexibility to proactively manage their networks and provide high quality service to all users.”³⁶ Specifically, “an expansive mobile no-blocking rule would hamstring provider flexibility and thus threaten evolving technological approaches to network challenges.”³⁷ The Commission must recognize that mobile networks need to perform sophisticated traffic management involving constant, dynamic changes to connections in order to achieve the highly efficient use of spectrum to satisfy exploding mobile data usage demands.³⁸ Akamai Technologies, Inc. urges the Commission to proceed with “extreme caution” as it considers expanding the scope of the open Internet rules to cover mobile broadband.³⁹ And Qualcomm explains that “the mobile Internet’s

³⁴ T-Mobile Comments at 6.

³⁵ Rysavy Research Paper at 10.

³⁶ T-Mobile Comments at 6.

³⁷ *Id.* at 11.

³⁸ Rysavy Research Paper at 11.

³⁹ Comments of Akamai Technologies, Inc., GN Docket No. 14-28, at 11-12 (dated July 15, 2014).

future openness directly depends upon the development of ever-improving traffic management techniques and infrastructure improvements and extensions.”⁴⁰

Wireline and cable broadband providers do not face the same technical constraints as wireless providers.⁴¹ One strand of fiber carries 1,000 times more bits per second compared to a generously-sized 10 GHz wide radio channel.⁴² The Commission’s regulatory approach must recognize these stark technological differences.

Commenters calling for enhanced regulation in the form of Title II reclassification for all platforms assert that the ability to engage in reasonable network management addresses mobile providers’ operational challenges. This argument is flawed in several respects. First, the argument fails to address the threshold question of why the competitive and continuously evolving mobile broadband industry should be subjected to monopoly-era regulation. Title II carries numerous additional regulatory requirements and burdens, the impact of which has not been thoroughly considered or discussed in this proceeding, let alone justified.⁴³ Second, reclassification of Internet access services to subject them to Title II regulation is not a prerequisite to employing a framework in which operators may engage in reasonable network management practices. Finally, the imposition of Title II obligations ignores the corresponding benefits that inure to consumers when they have a range of different service models from which to choose. Enhanced regulation will chill such innovation, ultimately harming consumers. In

⁴⁰ Qualcomm Comments at 6-7.

⁴¹ Rysavy Research Paper at 5-11; *see also* Dr. Jeffrey H Reed and Dr. Nishith D. Tripathi, *Net Neutrality and Technical Challenges of Mobile Broadband Networks*, at 19 (Sept. 4, 2014) (attached to Letter from Scott Bergmann, Vice President – Regulatory Affairs, CTIA – The Wireless Association®, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-28 (dated Sept. 4, 2014)).

⁴² Peter Rysavy, *Rysavy: How will 5G compare to fiber, cable, or DSL?*, Fierce Wireless, May 27, 2014, available at <http://www.fiercewireless.com/story/rysavy-how-will-5g-compare-fiber-cable-or-dsl/2014-05-27>.

⁴³ *See* Comments of the National Minority Organizations, GN Docket No. 14-28, at 8 (dated July 18, 2014) (“A common carrier approach to broadband regulation would slow down broadband adoption and stifle the growth of the Internet . . . Antiquated common carriage requirements, such as rate regulation and limits on content partnerships that do not offend antitrust law . . . would lead to years of regulatory ambiguity and litigation.”) (citations omitted).

short, a one-size-fits-all regulatory approach to all networks – both fixed and wireless – would be pure technical folly, and it would deliver the most anti-consumer outcome possible – an Internet experience significantly impaired in its ability to expand, adapt, and innovate in an intelligent and organized way.

III. Reclassifying Mobile Broadband as a Telecommunications Service and/or Imposing Title II Obligations Would be Inconsistent with Commission Precedent and Would Violate the Communications Act.

The Commission first classified Internet access as an information service in 1998, and explicitly concluded that wireless broadband Internet access is an information service in 2007. There is no basis upon which to reverse those decisions now. The Commission explained in its 1998 *Report to Congress* that Internet Service Providers “conjoin the data transport with data processing, information provision, and other computer-mediated offerings, thereby creating an information service.”⁴⁴ Then, in the 2007 *Wireless Broadband Order*, the Commission similarly explained that “wireless broadband Internet access service offers a single, integrated service to end users, Internet access, that inextricably combines the transmission of data with computer processing, information provision, and computer interactivity, for the purpose of enabling end users to run a variety of applications.”⁴⁵ Since 2007, mobile broadband service has only increasingly integrated data transmission, computer processing, information provision, and computer interactivity to allow end users to run various applications. Mobile broadband providers continue to incorporate additional features that require the storage and processing of information, such as security features, anti-virus technologies, parental controls, instant messaging, and personalized home pages, in addition to traditional data services such as e-mail

⁴⁴ *Federal-State Joint Board on Universal Service*, Report to Congress, 13 FCC Rcd 11501, 11540 ¶ 81 (1998).

⁴⁵ *Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks*, Declaratory Ruling, 22 FCC Rcd 5901, 5911 ¶ 26 (2007) (“*Wireless Broadband Order*”) (citation omitted).

and web browsing. The same considerations that led the Commission to find that Internet access and wireless broadband Internet access are information services from 1998 through 2007 demand the same determination now.

In addition, imposing common carrier regulations on mobile broadband service would violate the Act. While mobile broadband is currently classified as an information service, it also is classified as a private mobile radio service, which the Act protects from common carrier treatment.⁴⁶ Specifically, in 2007, the Commission found that mobile broadband is not a commercial mobile radio service.⁴⁷ In so doing, the Commission necessarily classified mobile broadband as a private mobile radio service, which is exempt from common carrier regulation pursuant to Section 332(c).⁴⁸

Earlier this year, the D.C. Circuit explained that because the Commission has classified mobile broadband service as a private mobile service, treatment of mobile broadband providers as common carriers would violate Section 332.⁴⁹ That same court also explained in 2007 that “mobile-data providers are statutorily immune, perhaps twice over, from treatment as common carriers.”⁵⁰ The court stated further, “the Commission may invoke both its Title II and Title III authority to regulate mobile-voice services, but it may not rely on Title II to regulate mobile data.”⁵¹

⁴⁶ *Id.*

⁴⁷ *Id.* at 5916 ¶ 41.

⁴⁸ Section 332(d) defines “private mobile service” as a mobile service that is not a commercial mobile service or the functional equivalent of a commercial mobile service. 47 U.S.C. § 332(d)(3). As mobile broadband is a mobile service but not a commercial mobile service, it falls squarely within the Act’s definition of private mobile service.

⁴⁹ *Verizon v. FCC*, 740 F.3d 623, 650 (D.C. Cir. 2014).

⁵⁰ *Cellco Partnership v. FCC*, 700 F.3d 534, 538 (D.C. Cir. 2012).

⁵¹ *Id.*

In order to impose common carriage requirements on mobile broadband, the Commission would need to reclassify mobile broadband as both a telecommunications service and a commercial mobile radio service. However, classifying mobile broadband as a commercial mobile radio service is unlawful. Commercial mobile service is defined in Section 332(d) as any mobile service that is provided for profit and makes interconnected service available to the public.⁵² Further, that section defines “interconnected service” as a service that is interconnected with the public switched network.⁵³ Mobile Internet access service does not interconnect with the public switched network and thus cannot be classified as a commercial mobile service. Therefore, the Commission is prohibited from imposing common carrier obligations on mobile broadband service.

⁵² 47 U.S.C. § 332(d).

⁵³ *Id.*

IV. Conclusion

For the reasons set forth above, the Commission should not impose any new open Internet regulations on mobile broadband service. Should the Commission decide to impose new rules, such rules should be limited to the 2010 no-blocking rule.

Respectfully Submitted,

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