

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)
)
Inquiry Concerning Deployment of Advanced) WT Docket No. 17-199
Telecommunications Capability to All Americans)
in a Reasonable and Timely Fashion)

To: The Commission

REPLY COMMENTS OF MOBILE FUTURE

Mobile Future submits these reply comments in response to the above-captioned Notice of Inquiry seeking additional information regarding whether advanced telecommunications services have been deployed in the United States in a reasonable and timely basis.¹

I. INTRODUCTION.

Advanced telecom services are being deployed in a reasonable and timely manner, particularly when it comes to mobile services. The Commission's inquiry here should not focus myopically on whether certain arbitrary, and sometimes politically-driven, variables are being met. Rather, the Commission should, consistent with Congressional intent, examine the overall progress being made to connect consumers across the country with the most advanced services presently being deployed by carriers. Additionally, the inquiry should focus on progress over time, not universal availability of service at any given point in time. In the case of wireless, the current inquiry therefore should focus on the deployment and availability of LTE service, which the vast majority of Americans now have access to from multiple competitors.² As the next

¹ *Inquiry Concerning Deployment of Advance Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, Thirteenth Broadband Progress Notice of Inquiry, GN Docket No. 17-199 (rel. Aug. 8, 2017) ("Notice").

² *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993*, Twentieth Report, FCC 17-126 (rel. Sept. 27, 2017) ("Twentieth CMRS Report").

generation of wireless (5G) develops, the inquiry will need to account for new advancements made by that transition, recognizing that 5G likely will come in a variety of forms and delivered over a multitude of spectrum bands.

Based on that framework, when it comes to mobile service, there can be no question that advanced telecom services are being deployed on a timely and reasonable basis. Only a small number of Americans still await the promise of LTE availability, which the Commission is appropriately looking to address through the proposed Mobility Fund. While in January 2012 only two-thirds of the U.S. population enjoyed access to 4G LTE service,³ less than five years later 99.7 percent of Americans had access to this state-of-the-art technology with average download speeds of 23.5 Mbps.⁴ The rapid deployment of this technology has been nothing short of remarkable. As consumers experience the benefits of 4G LTE service, carriers are already working hard to deliver 5G wireless service. These advances have been made possible by the enormous capital investments of U.S. mobile broadband providers.⁵

Congress, in calling upon the FCC to assess annually the industry's progress in delivering advanced telecommunications services, also required the Commission to evaluate critically its own role in facilitating such deployment. Although progress is certainly being made, the FCC can accelerate industry efforts to deploy LTE to all corners of the country and to transition to 5G by actively taking steps that will not only remove regulatory barriers to investment, but incentivize it. Specifically, the Commission should return the classification of broadband internet access service ("BIAS") as an interstate information service under Title I of the

³ *In the Matter of Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993* Sixteenth Report, 28 FCC Rcd 3700, 3833 at Tbl. 31 (2013).

⁴ *Twentieth CMRS Report* at Chart III.D.5 (data as of Dec. 2016); Comments of AT&T Services, Inc., GN Docket No. 17-199, at 2 (filed Sept. 21, 2017) ("AT&T Comments").

⁵ *Id.* at ¶ 47 ("Mobile wireless service providers compete for customers across many dimensions, including on price, service characteristics, service quality, advertising and marketing, investment, network coverage and technology, and speed of service.").

Communications Act.⁶ Similarly, the Commission should restore the classification of mobile BIAS (“MBIAS”) as a private mobile service.⁷ Further, the Commission should facilitate 5G deployment by making additional spectrum available and streamlining the wireless infrastructure deployment process. By reducing barriers to investment, eliminating regulatory hurdles, and adopting other light-touch, pro-competition policies, the Commission can incentivize and accelerate Americans’ access to these cutting-edge services and ensure that the United States remains the global leader in mobile broadband.

II. THE SECTION 706 INQUIRY PROCESS MUST BE RESTORED TO BE CONSISTENT WITH CONGRESS’S ORIGINAL INTENT.

The FCC has at times deliberately misconstrued its obligation under Section 706 to “determine whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion,”⁸ in order to “manufactur[e] new tests purpose-built to justify a negative view of the status of broadband deployment in the United States,” thereby justifying any and all regulatory desires allegedly designed to resolve such inadequacies.⁹ Creating a regulatory sword to expand the reach of the FCC’s rules and regulations was not what Congress envisioned when it called for annual reports on the deployment of advanced telecommunications services. The inquiry was meant to provide the FCC with adequate data upon which it could make determinations about the state of the marketplace in order to decide what actions could be

⁶ 47 U.S.C. § 332(c).

⁷ Historically, since its inception, BIAS were *always* classified as interstate information services on a bipartisan and unanimous basis. *Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities*, Declaratory Ruling and Notice of Proposed Rulemaking, 17 FCC Rcd 4798 (2002); *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853 (2005); *Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks*, Declaratory Ruling, 22 FCC Rcd 5901 (2007). The Commission radically departed from this bipartisan consensus with its 2015 order classifying broadband as a Title II telecommunications service for the first time in U.S. history. In a separate proceeding, the FCC has an opportunity to restore the light-touch regulatory classification that helped create the greatest deregulatory success story of all time: the Internet ecosystem.

⁸ 47 U.S.C. § 1302(b).

⁹ Comments of Verizon, GN Docket No. 17-199, at 2 (Sept. 21, 2017) (“Verizon Comments”).

taken to remove barriers to infrastructure investment and promote competition, if necessary. Congress did not grant the Commission hidden powers to massively regulate the internet ecosphere based upon the political whims of the moment or arbitrary projections of future consumer needs. Rather, Congress gave the Commission the clear task of researching and analyzing the status of the broadband marketplace to determine if *progress is being made* in delivering the most advanced telecommunications capabilities in the marketplace to American consumers. Congress never gave the FCC the authority to arbitrarily mandate speeds or other standards. Such authority would be virtually unlimited and subject to change at any time, regardless of consumer preferences or other marketplace conditions.

Therefore, the Commission should correct the last two reports' distortion of congressional intent and adopt the *Notice*'s proposal to interpret the phrase "*is being deployed to all Americans*" as an instruction to "evaluat[e]" the ongoing "progress" towards universal deployment.¹⁰ The focus should be on providers' significant efforts to rollout the most advanced capabilities to as many consumers as possible as quickly as possible, such as the near universal upgrade from 3G to 4G LTE within the past five years and the burgeoning deployment of 5G. As such, the Commission should not examine current deployment data in isolation; rather, it should take into account providers' substantial investments in broadband and, where appropriate, the steps the Commission should take to encourage greater broadband deployment.¹¹

The Commission should not base its inquiry on whether a particular speed is available to all Americans, or any additional variables, such as latency, consistency of service, and other parameters discussed in the *Notice*. For reasons of uniformity, reliability, and ease of administration, the Commission should instead adopt its suggestion that, in lieu of the often

¹⁰ *Notice* ¶ 30.

¹¹ See Verizon Comments at 12.

conflicting thresholds for measuring wireless deployment, it should “use deployment of various air interface technologies (*e.g.*, LTE) as a proxy” for any such benchmarks.¹²

Furthermore, maintaining the past Commission’s arbitrary criteria for the Section 706 inquiry raises a number of practical concerns. A speed-based benchmark, as AT&T observes, would require the use of third-party data and introduce “complex methodological issues,” such as “how many samples should be taken, how often, in what geographic areas, and many other similar issues.”¹³ Setting a single latency threshold for all mobile technologies¹⁴ likewise would be a complicated exercise.¹⁵ Assessing the “consistency/reliability of service” also is almost impossible to measure in any scientifically valid way, and the Commission has conceded that assessing quality of service for mobile services is especially onerous given that mobile broadband travels with the user and therefore varies depending on the user’s location.¹⁶

On the other hand, relying upon the latest wireless standard, such as the LTE air interface, as the benchmark for assessing deployment of advanced telecommunications capabilities in mobile services would avoid many of these problems. The Form 477 data already requires providers to input a Technology Code for the transmission technology deployed for mobile wireless services, making it easy to measure LTE deployment. As AT&T observed,

¹² AT&T Comments at 2 (quoting *Notice* ¶ 19).

¹³ *Id.* at 10-11.

¹⁴ *Notice* ¶¶ 15, 17, 22.

¹⁵ Verizon Comments at 14.

¹⁶ *Id.* at 15. See also *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, Eleventh Broadband Progress Notice of Inquiry, 30 FCC Rcd 8823, 8840 ¶ 45 (2015) (“[B]ecause mobile broadband travels with the user, service quality may vary at different locations due to a variety of factors, including the particular network technology deployed in a given area, network congestion, or physical interference.”) (citation omitted); see also *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993*, Eighteenth Report, 30 FCC Rcd 14515, 14602 ¶ 134 (WTB 2015) (“*Eighteenth CMRS Report*”) (regarding FCC tests for mobile latency, “[i]t is possible that consecutive tests in the same place, on the same service provider, and at about the same time may test to different servers”).

“[c]arriers conceive their deployments in terms of interface technologies established by the standards-setting bodies, and thus it makes sense to define advanced mobile capabilities in terms of those interfaces, rather than specific speeds or capabilities.”¹⁷ This approach is also consistent with the Commission’s approach to awarding universal service support for mobile broadband through the Mobility Fund. In that context, the Commission is identifying areas that lack 4G LTE service and providing support for carriers to deploy LTE in those areas. The FCC is not looking at what areas lack access to a particular speed and requiring carriers to meet such speeds as a condition of receiving support.¹⁸ The same should be true in the context of the Section 706 inquiry. Accordingly, as new technological standards for wireless technologies emerge and carriers begin to implement these innovations, the Commission can fulfill its Section 706 obligations by tracking their deployment using Form 477 data and ensuring that providers work to serve more and more Americans with the most advanced technologies available.

III. ADVANCED TELECOMMUNICATIONS SERVICES ARE BEING REASONABLY AND TIMELY DEPLOYED.

Under the framework proposed above, there is no doubt that enormous progress has been made in the deployment of advanced services over mobile platforms. 4G LTE was a nascent technology in 2010, but by January 2014 it had reached 98.5 percent of Americans¹⁹ and now covers 99.7 percent of the population.²⁰ Fifty-four operators offered commercial LTE across the

¹⁷ AT&T Comments at 12.

¹⁸ *Connect America Fund Universal Service Reform – Mobility Fund*, Report & Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd 2152, 2213-15 ¶¶ 156-161 (2017).

¹⁹ Press Release, Verizon, *Blazingly Fast: Verizon Wireless Launches the World’s Largest 4G LTE Network on Sunday, Dec. 5*, (Dec. 4, 2010), <https://www.verizonwireless.com/news/2010/12/pr2010-12-03.html>; *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*, Seventeenth Report, 29 FCC Rcd 15311, 15340 ¶ 59 Tbl. III.A.2 (WTB 2014); *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993*, Fifteenth Report, 26 FCC Rcd 9664, 9720 ¶ 70 (2011).

²⁰ *Twentieth CMRS Report* at Chart III.D.5.

country in 2015.²¹ And today, 99.7 percent of Americans can benefit from this service,²² and 4G accounts for 93 percent of all mobile traffic in the U.S.²³ Indeed, in terms of “market share, penetration and coverage, the U.S. leads the world” and remains at the head of the class in technology and spectrum innovation.²⁴

The United States remains poised to continue its global leadership in 5G. This February, Verizon announced that it intended to deliver 5G pre-commercial services to customers in 11 markets across the country on its newly built 5G network,²⁵ and as of this July, 8 markets are already “up and running.”²⁶ AT&T has announced that it moved into new rounds of 5G testing in Austin, Texas and Indianapolis, Indiana. The company expects to achieve data rates of 1Gbps by the end of the year²⁷ and intends to launch standards-based mobile 5G as early as 2018.²⁸ T-Mobile and Sprint, meanwhile, separately announced plans to roll out a national 5G network beginning in 2019.²⁹ By 2022, Ericsson estimates one in four North American mobile

²¹ 4G Americas LTE Deployment Status Update, North America—USA/Canada, Sept. 1, 2015, http://www.4gamericas.org/files/7214/4112/1452/North_America_9.1.15.pdf.

²² The Commission’s own data show that 99.7 percent of the U.S. population has access to 4G LTE, and 96.6 percent has access to three or more providers for 4G LTE. *Twentieth CMRS Report* at Chart III.D.5 (data as of Dec. 2016).

²³ Cisco, *VNI Mobile Forecast Highlights, 2016-2021*, http://www.cisco.com/assets/sol/sp/vni/forecast_highlights_mobile/ (last visited Oct. 6, 2017).

²⁴ 4G Americas, *Year-End 2014: Nearly Half a Billion LTE Connections WorldWide: 4G Americas reports substantial gains for LTE in North America* (Mar. 11, 2015), <http://www.4gamericas.org/en/newsroom/press-releases/year-end-2014-nearly-half-billion-lte-connections-worldwide>.

²⁵ News Release, Verizon, *Verizon To Deliver 5G to Pilot Customers in 11 Markets Across U.S. by Mid-2017* (Feb. 22, 2017), <http://www.verizon.com/about/news/verizon-deliver-5g-service-pilot-customers-11-markets-across-us-mid-2017> (announcing 5G pre-commercial services to select customers in Ann Arbor; Atlanta; Bernardsville, N.J.; Brockton, Mass.; Dallas; Denver; Houston; Miami; Sacramento; Seattle; and Washington, D.C.).

²⁶ Thompson Reuters StreetEvents Transcript, *Q2 2017 Verizon Communications Inc. Earnings Call*, at 6 (July 27, 2017), <http://www.verizon.com/about/file/22839/download?token=rXYojBe6>.

²⁷ News Release, AT&T, *AT&T Network 3.0 Indigo, Redefining Connectivity through Software Control, Big Data, and Blazing Speed* (Feb. 1, 2017), http://about.att.com/story/indigo_redefining_connectivity.html.

²⁸ *Id.*; see also Chris Donkin, *AT&T Prepares Next Round of 5G Testing* (Feb. 3, 2017), <https://www.mobileworldlive.com/featured-content/top-three/att-prepares-next-round-of-5g-testing/>.

²⁹ Jon Fingas, *T-Mobile Plans to Launch a National 5G Network by 2020*, Engadget (May 2, 2017), <https://www.engadget.com/2017/05/02/t-mobile-plans-national-5g-network-by-2020/>; Chaim Gartenberg, *Sprint*

subscriptions will be 5G.³⁰

These spectacular advances have been possible because of the immense investment wireless carriers have made in their networks to develop the next generation of mobile services.³¹ As such, the FCC should find that advanced telecommunications services are being reasonably and timely deployed within the meaning of Section 706.

IV. THE COMMISSION CAN ACCELERATE THE DEPLOYMENT OF ADVANCED TELECOMMUNICATIONS SERVICE BY REMOVING REGULATORY IMPEDIMENTS TO INVESTMENT.

Notwithstanding the breakneck pace of mobile broadband network deployment, the Commission should regularly examine its policies to determine what actions may be necessary to accelerate the reasonable and timely deployment of advanced telecommunications services.³² There are several steps the Commission can take, starting with the reclassification of BIAS as an information service and a return to the light-touch regulation that has fostered the reasonable and timely deployment of advanced telecommunications services over the last decade. First, BIAS should be reclassified as an information service under Title I.³³ As Mobile Future has previously described,³⁴ the FCC's decision in the *Title II Order* to subject BIAS to Title II common carriage

Plans to Launch a 5G Network by Late 2019, The Verge (May 10, 2017), <https://www.theverge.com/2017/5/10/15609500/sprint-5g-network-late-2019-qualcomm-softbank-cellular>.

³⁰ Ericsson, *Ericsson Mobility Report*, at 9 (June 2017), <https://www.ericsson.com/assets/local/mobility-report/documents/2017/ericsson-mobility-report-june-2017.pdf>.

³¹ *Eighteenth Report*, 30 FCC Rcd at 14581 ¶ 105.

³² See 47 U.S.C. § 1302(a) (“The Commission ... shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans ... by utilizing ... price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment.”)

³³ 47 U.S.C. § 153(24). The term information service “means the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications.”

³⁴ See Comments of Mobile Future, WT Docket No. 17-108, at 11-14 (filed July 17, 2017) (“Mobile Future RIF Comments”); Reply Comments of Mobile Future, WT Docket No. 17-108, at 13-14 (filed Aug. 30, 2017).

requirements³⁵ has stifled investment and dampened innovation to the detriment of consumers.³⁶

Second, MBIAS should be classified as a private mobile service, and the definitions of interconnected service and public switched network should be restored to the meaning they enjoyed for the nearly two decades preceding the *Title II Order*.³⁷ During that period, the FCC rightly interpreted the term “public switched network” such that mobile broadband was a private mobile service – not an interconnected service subject to onerous common carriage regulation.³⁸ Third, the Commission should affirm that broadband is an *interstate* information service and preempt state regulation of BIAS.³⁹

Additionally, the Commission should facilitate the transition to 5G by (i) quickly locating and making available additional millimeter wave spectrum in the 24 GHz, 32 GHz, 42 GHz, 47 GHz, 50 GHz, 71-76 GHz, and 81-86 GHz bands; (ii) auctioning spectrum identified in the *Spectrum Frontiers Order*;⁴⁰ (iii) adopting rules to permit flexible use of the 3.7-4.2 GHz band;⁴¹ and (iv) quickly approving pending secondary market transactions.⁴² As a final matter, the Commission should streamline the infrastructure deployment process to make way for densified

³⁵ *Protecting and Promoting the Open Internet*, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd 5601 (2015) (“*Title II Order*”).

³⁶ George S. Ford, Phoenix Center Perspectives 17-02, *Net Neutrality, Reclassification and Investment: A Counterfactual Analysis*, at 2 (Apr. 25, 2017), <http://www.phoenix-center.org/perspectives/Perspective17-02Final.pdf>.

³⁷ For additional discussion, see Mobile Future RIF Comments at 13-14.

³⁸ See Comments of AT&T Services, Inc., WT Docket No. 17-108, at 91 (filed July 17, 2017); Comments of Verizon, WT Docket No. 17-108, at 43 (filed July 17, 2017); Comments of T-Mobile USA, Inc., WT Docket No. 17-108, at 15 (filed July 17, 2017) (“T-Mobile RIF Comments”).

³⁹ See Comments of Comcast Corporation, WT Docket No. 17-108, at 52 (filed July 17, 2017); T-Mobile RIF Comments at 25-26.

⁴⁰ *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 8014, 8031-38 ¶¶43-60, 8048-52 ¶¶ 88-93 (2016) (“*Spectrum Frontiers Order*”).

⁴¹ *Expanding Flexible Use in Mid-Band Spectrum between 3.7 and 24 GHz*, Notice of Inquiry, 32 FCC Rcd 6373 (2017).

⁴² Letter from Robert M. McDowell, Chief Public Policy Advisor, Mobile Future, to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 14-177 et al., at 2 (filed July 31, 2017).

5G networks. The facilities used to densify networks tend to be much smaller than traditional macro cell sites and involve little ground disturbance. Yet, many existing infrastructure siting procedures impose siting moratoria, cumbersome and lengthy application procedures, or extensive environmental review, based on outdated and unjustified municipal concerns. As a result, the Commission should consider prohibiting such moratoria and adopting shot clocks and other legal remedies to expedite the processing of such applications.⁴³ In taking these steps, the Commission will be meeting its obligation under Section 706 to identify actions to encourage the reasonable and timely deployment of advanced telecommunications services.

V. CONCLUSION.

Mobile Future respectfully requests that the Commission revise the manner in which it conducts its Section 706 analysis and find that advanced telecommunications services are being deployed to Americans in a timely and reasonable manner. Such a finding, along with the Commission's implementation of the pro-growth policies described above, will ensure that the United States remains the world leader in the deployment of mobile broadband service.

Respectfully submitted,



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⁴³ Comments of Mobile Future, WT Docket No. 17-79, at 2 (filed June 15, 2017).