

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

In the Matter of)	
Inquiry Concerning Deployment of Advanced)	GN Docket No. 18-238
Telecommunications Capability to All Americans)	
In a Reasonable and Timely Fashion)	

COMMENTS OF AT&T

AT&T respectfully files these comments in response to the Commission’s Fourteenth Broadband Deployment Report Notice of Inquiry.¹

I. Introduction.

Section 706 requires the Commission to report annually on “whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.”² In the most recent report, the Commission took a different approach to carry out its statutory duty; it focused its analysis on the progress made year-over-year in the deployment of fixed and mobile services. Specifically, the Commission conducted its evaluation of fixed and mobile services using four categories over a five-year period: (1) fixed services only; (2) mobile LTE services only; (3) fixed *and* mobile LTE services; and (4) fixed *or* mobile LTE services. As the Commission stated, this progress-based approach is “most consistent with the language of section 706,”³ and enables it to take a “holistic approach” by comparing multiple services as well

¹ Fourteenth Broadband Deployment Report Notice of Inquiry, *In the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 18-238, FCC 18-119 (released August 9, 2018) (“Notice”).

² 47 U.S.C. § 1302(b).

³ 2018 Broadband Deployment Report, *In the Matter of 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*

as combinations of services over time.⁴ As such, the Commission should continue with this approach.

Since the Commission's last report, fixed and mobile service providers have continued to invest and are building robust future-focused networks designed to provide advanced telecommunications to Americans for years to come. Based on the data discussed below, under any reasonable analysis, the Commission should find that advanced telecommunications capability continues to be deployed to all Americans in a reasonable and timely fashion.

II. Advanced Telecommunications Capability is Being Deployed to All Americans.

The available data confirm that advanced telecommunications capability is being deployed to all Americans. Between 1996 and 2016, the private sector invested more than *\$1.6 trillion* dollars to build broadband networks over a variety of platforms, and it has created the broadband-enabled services, applications, and content to fill those networks.⁵ That investment is continuing apace.

To date, all the major fixed providers offer variations of fiber-based Gigabit service,⁶ and providers are expanding their networks to bring advanced capabilities to more remote parts of the

Amended by the Broadband Data Improvement Act, 33 FCC Rcd 1660 (2018) at para. 11 (2018) ("2018 Report").

⁴ *2018 Report*, Statement of Chairman Ajit Pai, FCC.

⁵ See *USTelecom Industry Metrics and Trends 2018*, <https://www.ustelecom.org/broadband-industry/broadband-industry-stats> (last checked September 6, 2018).

⁶ AT&T Fiber, <https://www.att.com/internet/fiber.html>; Comcast Gig-speed, <https://www.xfinity.com/gig>; Verizon FIOS Gigabit, <https://fios.verizon.com/fios-speeds.html>; CenturyLink, <https://www.centurylink.com/home/internet.html>; Windstream Kinetic Gig, https://www.windstream.com/High-Speed-Internet?utm_source=Google&utm_medium=PPC&utm_campaign=2018_CRP_B_All_GenPop_US_Core_EXT&utm_term=windstream%20internet&utm_content=Q3Offer&gclid=CjwKCAjwrNjcBRA3EiwAII0vq_KK6T3ikjT7dThNBN7K-LwNeAmp-NqBU49Ckk30nMnKX54vjY6r1BoC3nkQAvD_BwE.

country. For example, AT&T committed to deploy an advanced fixed wireless local loop service to over 1.1 million rural locations by the end of 2020, and over the last two years, AT&T completed its build out to over 500K of those locations. Similarly, CenturyLink committed to deliver broadband service to 1.2 million rural households and has completed its build out to over 600,000 rural homes and businesses in the last two years.^{7 8}

Moreover, wireless investment is thriving as carriers refine their LTE deployments and race to deploy 5G. For example, AT&T's deployment of the FirstNet network is bringing seamless, IP-based, high-speed mobile communications network to first responders in all 50 states, 5 U.S. territories and the District of Columbia, including rural communities and tribal lands in those states and territories.⁹ In addition, AT&T is already offering "5G Evolution in more than 140 markets, covering nearly 100 million people with theoretical peak speeds of at least 400 Mbps,"¹⁰ and has plans to serve more than 400 markets by the end of 2018.¹¹ AT&T is also

⁷ CenturyLink News Releases, CenturyLink brings broadband to 600,000 homes and businesses in rural America (January 18, 2018) <http://news.centurylink.com/2018-01-18-CenturyLink-brings-broadband-to-600-000-homes-and-businesses-in-rural-America> (last checked September 12, 2018).

⁸ Windstream has recently deployed fixed wireless broadband services in rural locations in two states as well. Windstream peels back the curtain on its fixed wireless deployments, Fierce Wireless, Mike Dana (May 7, 2018) <https://www.fiercewireless.com/wireless/windstream-peels-back-curtain-its-fixed-wireless-deployments> (last checked September 12, 2018); *See also* Windstream brings faster broadband speeds to Poteau with fixed wireless technology, Nasdaq (August 8, 2018), <https://www.nasdaq.com/press-release/windstream-brings-faster-broadband-speeds-to-poteau-with-fixed-wireless-technology-20180807-00858> (last checked September 12, 2018).

⁹ AT&T News: AT&T Selected by FirstNet to Build and Manage America's First Nationwide Public Safety Broadband Network Dedicated to First Responders (March 30, 2017) http://about.att.com/story/firstnet_selects_att_to_build_network_supporting_first_responders.html (last checked September 12, 2018).

¹⁰ AT&T Inc., Q2 2018 Earnings Call (July 24, 2018).

¹¹ AT&T Newsroom, *AT&T Bringing 5G to More U.S. Cities in 2018* (July 20, 2018), http://about.att.com/story/5g_to_launch_in_more_us_cities_in_2018.html.

upgrading its cell towers with LTE-Licensed Assisted Access (“LTE-LAA”), which achieves theoretical peak speeds of up to 1 Gbps. AT&T has already deployed LTE- LAA in 15 markets¹² and expects to reach at least 24 later this year.¹³ AT&T plans to introduce mobile 5G to customers in twelve cities this year.¹⁴

T-Mobile has also been aggressively upgrading its LTE network and deploying 5G-ready infrastructure. It has deployed small cells to activate LTE-LAA technology and has committed to bring 5G to 30 cities in 2018.¹⁵ Likewise, Sprint has upgraded thousands of cell sites, added small cells, deployed Massive MIMO radios (a key technology for 5G), and expects to provide commercial 5G services by the first half of 2019.¹⁶ And Verizon plans to be among the first to launch mobile 5G in 2019 and recently announced the launch of its 5G Home service, built on Verizon’s 5G Ultra Wideband Network, leveraging its fiber network, small cells and millimeter wave spectrum.¹⁷

¹² *Id.*

¹³ AT&T Newsroom, *AT&T Builds on 5G Foundation in More Than 100 New Markets* (Apr. 20, 2018), http://about.att.com/story/att_builds_on_5g_foundation_in_more_than_100_new_markets.html.

¹⁴ *Id.*

¹⁵ T-Mobile Press Release, *T-Mobile Building Out 5G in 30 Cities This Year ... And That’s Just The Start* (Feb. 2, 2018), <https://www.t-mobile.com/news/mwc-2018-5>.

¹⁶ Sprint Corp., Press Release, *Sprint’s Next-Gen Network Build Gains Momentum* (Aug. 1, 2018), <http://investors.sprint.com/news-and-events/press-releases/press-release-details/2018/Sprints-Next-Gen-Network-Build-Gains-Momentum/default.aspx>.

¹⁷ Verizon 5G home internet service coming to Indianapolis (August 14, 2018) <https://www.verizon.com/about/news/verizon-5g-home-internet-service-coming-indianapolis> (last checked September 12, 2018).

In sum, both fixed and mobile providers continue to deploy networks that will deliver speeds to enable Americans to access advanced telecommunications for the foreseeable future.

III. The Commission Should Continue to Use LTE Coverage as a Proxy for Gauging Wireless Broadband Deployment.

AT&T agrees with the Commission’s proposal to use the same methodologies used in the *2018 Report* to assess mobile broadband deployment for the next Broadband Deployment Report.¹⁸ LTE deployment satisfies the statutory mandate as the technology provides the capability to “originate and receive high-quality voice, data, graphics, and video telecommunications” within the meaning of Section 706. Further, speed test data demonstrates that the nationwide average LTE download speed increased 20% between 2017 and 2018 to 27.33 Mbps, and the average upload speed for LTE was 8.63 Mbps, up 1.4% over Q1-Q2 2017.¹⁹ These speeds are more robust than the 25/3 benchmark for fixed, particularly insofar as multiple users in a household need not *share* that bandwidth. Finally, LTE deployment is also easy to measure because it can be determined from the Commission’s readily accessible source: Form 477 data. Both providers and the Commission are familiar with the form, making LTE deployment easy to implement as a measure of advanced telecommunications capability deployment.

IV. Mobile broadband is a Functional Substitute for Fixed Broadband.

The Commission also seeks comment on whether and to what extent fixed and mobile services are substitutes for each other.²⁰ In the *2018 Report*, the Commission relied on its findings

¹⁸ *Notice* at ¶ 18.

¹⁹ Ookla, SpeedTest Reports, Mobile – based on Q1-Q2 2018 data (July 18, 2018), <http://www.speedtest.net/reports/united-states/> (last checked September 10, 2018).

²⁰ *Notice* ¶ 11.

from its 2016 Report, stating “there are clear variations in consumer preferences and demands for fixed and mobile services,” and refused to acknowledge mobile broadband as a substitute for fixed.²¹ However, recent market data illustrating consumer preference belies this finding. Mobile broadband connections among U.S. consumers have exploded exponentially in the past ten years – soaring from 27 million connections in 2008 to about 291 million connections in 2018, as compared to 112 million fixed broadband connections.²² This trend will only accelerate as competition drives further increases in mobile speeds and quality.

Even today, a recent study by the Internet Innovation Alliance (IIA) demonstrates that significant numbers of consumers are using mobile devices for activities that were once dominated by personal computers and larger-screen televisions.²³ For example, the study shows that a clear majority of consumers use mobile devices for “bandwidth and data-intensive applications” like streaming multimedia content – including watching news and sports, as well as streaming movies and television shows from services like Netflix, Hulu, etc.²⁴ Notably, these results are consistent across different racial groups, different residential areas, and different income levels.²⁵ The study also demonstrates that mobile broadband has a prominent role in American education, reporting

²¹ *2018 Report* at 18.

²² USTelecom, *USTelecom Industry Metrics and Trends 2018*, 16 (Mar. 1, 2018).

²³ *Evolving Preferences: Consumer Preferences Tilting Towards Mobile Broadband*, Internet Innovation Alliance (July 17, 2018) <https://internetinnovation.org/special-reports/consumer-preferences-tilting-towards-mobile-broadband/> (last checked September 11, 2018).

²⁴ *Id.* at p. 18 (64% indicating they read or watch news or sports; 57% indicating they stream videos or music; and 25% indicating they have applied for jobs).

²⁵ *Id.* at p. 19 (Reporting 56% White, 59% Hispanic, 67% Black consumers used mobile devices for streaming video or music; Reporting 57% city, 58% suburban, 49% rural consumers used mobile devices for streaming video or music; Reporting 53% income less than \$50K, 58% income between \$50-100K, 59% income greater than \$100K used mobile devices for streaming video or music).

that “nearly half of all U.S. households with school age children have relied on mobile devices to complete homework assignments in the past year.”²⁶ With 5G services offering speeds of up to 1 Gig and beyond, consumers will undoubtedly view wireless services as an even more compelling alternative to fixed.

V. The Commission Should Continue Its Efforts to Remove Unreasonable Barriers to Investment.

The Commission can also reduce the digital divide by continuing its efforts to remove unreasonable barriers to infrastructure deployment for wireline and wireless carriers, including through adoption of the draft Declaratory Ruling and Third Report and Order in Docket No. 17-79. To meet rapidly increasing demand for wireless services and prepare our national infrastructure for 5G technology, providers must densify their networks by extensively deploying new, small cell facilities, which in turn will require timely deployment of fiber deeper into the wireline network. Reasonable and timely permitting processes and removing unreasonable obstacles will be essential to keeping pace with required deployments and will give all communities a chance at advanced wireless services and the opportunities they enable.

²⁶ *Id.* (Reporting 48% of households with school aged children completed homework on mobile devices).

VI. Conclusion.

As discussed above, the Commission should find that advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.

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