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Resurgence in Broadband Deployment Vindicates FCC's Pro-Investment Policies

by

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Introduction and Summary

On circulation at the FCC is a soon-to-be released Notice of Inquiry for its forthcoming *2020 Broadband Deployment Report*. As the Commission looks to next year's report, it's worth taking stock of data points contained in this year's report and also in more recent industry reports. Those data points indicate that broadband continues to be "deployed to all Americans in a reasonable and timely fashion." Evidence regarding the progress of broadband deployment in 2017 and 2018 shows that the Commission's renewed attention to promoting investment as well as adoption and its elimination of unnecessary and harmful regulation is paying off.

The Commission can help ensure broadband deployment progress into 2020 and further reduce the digital divide by sticking to its pro-adoption policies and by removing additional regulatory barriers to investment. The Commission should, for instance, act as quickly as it can to put more valuable mid-band spectrum into commercial use. In this regard, adopting a policy for repurposing C-Band spectrum along the free market-oriented lines suggested by Free State Foundation scholars in a July 2019 *Perspectives* would be important in likely hastening deployment of 5G services. The same can be said, as Free State Foundation scholars also have urged in various comments and *Perspectives*, for the Commission now promptly reaching a

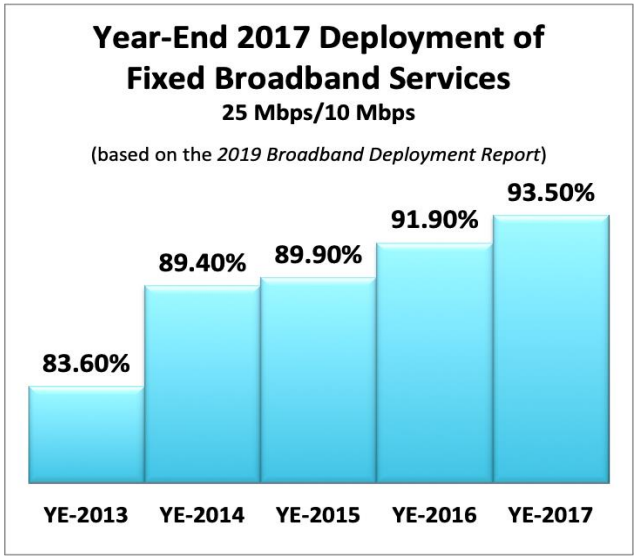
decision on Ligado Networks' modified applications to use L-Band spectrum for terrestrial mobile use.

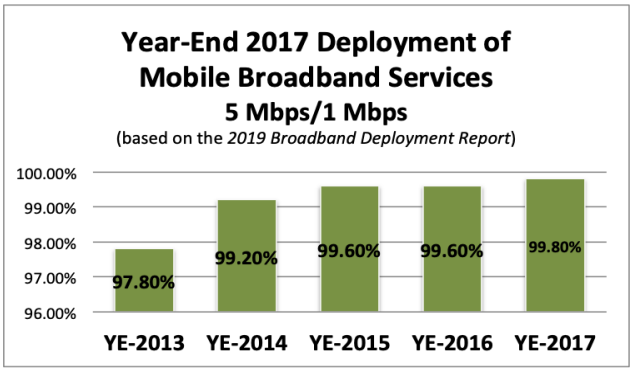
Moreover, to streamline infrastructure needed for 5G, the Commission should clarify Section 6409(a)'s requirements regarding modifications to towers and base stations as well as reinstitute historic and environmental review exemptions for small cell construction. And the Commission should update its Over-the-Air Device rule to include hub and relay antennas for fixed wireless signals, thus prohibiting local restrictions on use of such equipment by property users.

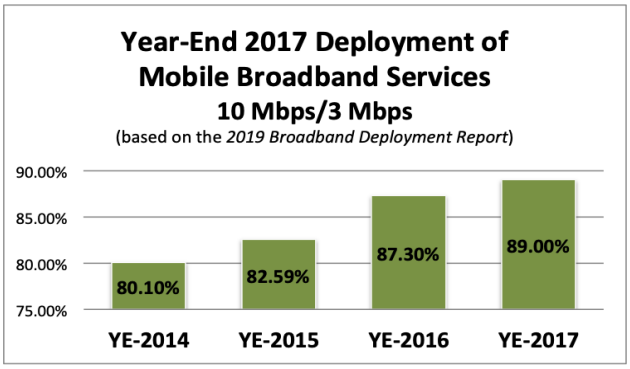
Positive Data Points Regarding Broadband Deployment in 2017

The *2019 Broadband Deployment Report*, released May 29, reveals increases in broadband service availability on different platforms. According to report data, here are the percentages of the U.S. population with access to broadband Internet access services at the end of 2017:

- 93.5% had access to fixed broadband services meeting download/upload benchmark speeds of 25Mbps/3Mbps – up from 91.9% in 2016, and 83.6% in 2013.
- 99.8% had access to LTE mobile broadband with advertised download/upload speeds of at least 5Mbps/1Mbps – up from 99.6% in 2016 and 97.8% in 2013.
- 89% had access to LTE mobile broadband with media speeds of 10Mbps/3Mbps – up from 87.3% in 2017 and 80.1% in 2014.
- 93.4% had access to fixed broadband services and to LTE mobile broadband services with speeds of 5Mbps/1Mbps – up from 91.7% in 2016, 83% in 2013.
- 85.8% had access to fixed broadband services and to LTE mobile broadband services with speeds of 10Mbps/3Mbps – up from 83.3% in 2016 and 74.7% in 2014.
- "[N]early every American had access to fixed 25/Mbps/3 Mbps service when satellite broadband services are included."







The 2019 report acknowledges that "the gap in rural and Tribal America remains notable: over 26% of Americans in rural areas and 32% of Americans in Tribal lands lack coverage from fixed terrestrial 25 Mbps/3 Mbps broadband, as compared to only 1.7% of Americans in urban areas." However, "the gap… has narrowed each year over the last five years." For instance, "[t]he percentage of Americans living in Tribal lands with coverage of mobile LTE [5 Mbps/1 Mbps] rose from approximately 87% in 2013, to 97% in 2017." Also, Americans living in rural lands with mobile LTE coverage rose to 99.1% in 2017, up from 98.2% in 2016 and 90.2% in 2013.

Positive Data Points Regarding Broadband Deployment in 2018

Initial industry reports from 2018 also provide evidence that broadband continues to be reasonably and timely deployed to all Americans:

- In 2018, "the [wireless] industry's investments increased $1.8 billion to a total of $27.4 billion." (CTIA's 2019 Annual Survey.)
- "In 2018, 349,344 cell sites were in operation—up 8 percent." (CTIA's 2019 Annual Survey.)
- As of September 2018, there were 18.4 million U.S. fiber broadband homes, up from approximately 15 million a year before. As of that date, fiber broadband was marketed to 39.2 million homes. (Fiber Broadband Assoc. and RVA.)
- Cable broadband providers served "more than 66 million high-speed Internet customers as of year-end 2018" – up from 49.6% in 2012 (NCTA.)
- Households connected by cable broadband adoption programs increased to over 1.5 million households in 2018, up from 1.25 million in 2017. (NCTA.)
- The satellite broadband industry reported a 12% increase in subscribers in 2018. (Satellite Industry 2019 Report.)
- "U.S. broadband providers invested approximately $80.0 billion in network infrastructure in 2018, up more than $3.1 billion from $76.9 billion in 2017." (US Telecom)

Additionally, next-generation broadband technologies will enable deployment of faster and more reliable services to many more Americans within the next few years. As widely reported, wireless carriers are now launching 5G network trials in major cities, with continued network expansion to follow. Mobile phone manufacturers expect to significantly increase shipments of 5G phones by 2020. Wi-Fi 6, which is expected to deploy by 2022, will offer superior connectivity for connected devices. Meanwhile, the cable broadband operators' 10G project to upgrade fixed broadband connections via cable networks will increasingly deliver gigabit and multi-gigabit speed services in 2021 and 2022. And as I explained in a March 2018 blog post, the anticipated launch of next-generation satellites, including by HughesNet and ViaSat, is expected to enable dramatically improved satellite broadband service.

The positive data points cited above and near-term projections for continued progress in broadband deployment vindicate the FCC's policy reorientation from fiat-oriented regulatory controls over broadband networks to market-oriented policies that encourage investment and deployment of facilities and adoption. Under the Obama-Wheeler FCC, the Commission imposed a public utility-like regulatory regime on broadband Internet access services and pursued other regulatory mandates. And in 2015 and 2016, annual investment in broadband infrastructure actually declined compared to prior years. Under Chairman Ajit Pai's leadership,

however, the Commission changed course. In 2017, the Commission repealed public utility-like regulation. And it implemented pro-investment reforms to reduce regulatory barriers to infrastructure deployment and to advance consumer adoption.

In its *2018 Broadband Deployment Report*, the Commission's positive finding that broadband deployment was being reasonably and timely deployed to all Americans was based, in large part, on policy changes and their hoped-for positive effects. Now, the positive deployment finding contained in the *2019 Broadband Deployment Report* is squarely supported by data revealing improved coverage and speeds during 2017.

Conclusion: Further FCC Action Is Needed to Remove Regulatory Barriers to Broadband Deployment

To build on the pro-investment and pro-adoption momentum that now exists, the Commission should follow through on several initiatives to remove regulatory barriers to investment in next-generation broadband infrastructure and encourage rapid deployment:

- Adopt a free market-oriented policy allowing incumbent Fixed Satellite Service (FSS) operators, subject to Commission oversight, to clear part or all of the C-Band spectrum using some form of secondary market transactions, effectively enabling flexible use of the spectrum by terrestrial mobile service providers in exchange for compensation for any "holdouts."
- Make a decision on Ligado Networks' modified applications to build a hybrid satellite-terrestrial wireless network for operations in unused L-band spectrum, which would offer Internet-of-Things (IoT) connectivity to business enterprises.
- Issue a ruling clarifying Section 6409(a) of the Spectrum Act regarding non-substantial modifications to towers and base stations, including by declaring the statute applies to all state and local authorizations needed to deploy or replace equipment on those structures, by establishing that shot clocks for local government decisions on collocation applications begin to run upon applicants' good faith attempts to request approval, and by prohibiting processes or conditions that reduce protections provided by the statute.
- Adopt a new rulemaking to better explain and reinstitute exemptions for small cell construction from historic and environmental reviews attached to certain federal projects. (In August 2019, the D.C. Circuit vacated those exemptions, which were part of the *Accelerating Wireless Broadband Deployment Order*.)
- Adopt the proposed rulemaking to update its Over-the-Air Device (OTARD) rule to include hub and relay antennas for fixed wireless signals, thereby prohibiting local government and private entity restriction on deployment and use of such equipment in areas within a property user's exclusive control.
- Adopt the proposed rulemaking on access arbitrage, to prevent abuses of the intercarrier compensation system and free up voice service provider resources for broadband investment or for more competitive residential broadband prices.

Finally, for its *2020 Broadband Deployment Report*, the Commission should retain its 25 Mbps/3 Mbps benchmarks for determining coverage by fixed broadband services as well as its 4G/LTE benchmark for wireless broadband services. Those standards offer a consistent baseline for making year-to-year comparisons. And those standards are congruent with services adopted by

large numbers of consumers. As indicated in the Commission's latest *Internet Access Services Report*, at the end of 2017, about 31% of consumers subscribed to fixed broadband services offering download speeds lower than 25 Mbps.

And as Free State Foundation President Randolph May and I stated in comments to the Commission in its prior broadband deployment report proceeding, speed benchmarks should reflect capabilities for widely demanded applications. Netflix, Hulu, and Amazon Prime, for instance, require no more than 10 Mbps for HD streaming or 5 Mbps for standard definition streaming. Moreover, Section 706 nowhere calls for the Commission to use ultra-aspirational criteria for making its broadband deployment determinations. (For more on this, see Mr. May's blog post from August 24.)

Data points charting the 2017 and 2018 resurgence in broadband coverage and speeds, as well as adoption, show that the Commission's pro-investment and pro-adoption policies are bearing fruit. Looking to 2020, the Commission can further advance the timely and reasonable deployment of broadband to all Americans by following through on its statutory duty to remove regulatory barriers to infrastructure investment and by continuing its efforts to reduce the digital divide.

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Further Reading

Randolph J. May, "A Summer Reading Recommendation for Commissioner Rosenworcel," *FSF Blog* (August 24, 2019).

Daniel Lyons, "D.C. Circuit Decision Represents Setback for Next-Generation Network Deployment Efforts," *Perspectives from FSF Scholars*, Vol. 14, No. 19 (August 15, 2019).

Seth L. Cooper, "FCC Report Indicates a Competitive Communications Marketplace: Future Reports Should Make Cross-Platform Substitution Findings," *Perspectives from FSF Scholars*, Vol. 14, No. 6 (February 26, 2019).

Comments of the Free State Foundation – Communications Marketplace Report, *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*; GN Docket Nos. 18-231 and 18-238 (September 21, 2018).

Comments of the Free State Foundation – Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, Including Commercial Mobile Services, WT Docket No. 18-203 (July 26, 2018).

Seth L. Cooper, "FCC Back on Track Promoting Broadband Deployment to All Americans," *Perspectives from FSF Scholars*, Vol. 13, No. 9 (March 6, 2018).

Comments of the Free State Foundation – *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket 17-199 (September 21, 2017).