

**Before the
Federal Communications Commission
Washington, DC 20230**

In the Matter of)
)
Inquiry Concerning Deployment of) GN Docket No. 20-269
Advanced Telecommunications Capability)
to All Americans in a Reasonable and)
Timely Fashion)

**COMMENTS OF
NTCA–THE RURAL BROADBAND ASSOCIATION**

NTCA–The Rural Broadband Association (“NTCA”)¹ hereby submits these comments in response to the Notice of Inquiry (“NOI”) issued in the above-captioned docket seeking comment on whether “advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.”² The Commission will use the findings from the NOI to prepare the annual report to Congress required by Section 706 of the Telecommunications Act of 1996 (“Report”) describing the status of broadband deployment throughout the U.S.

NTCA agrees with the Commission’s proposal to continue evaluating mobile and fixed services as each fulfilling important roles but not as functional substitutes for one another. In

¹ NTCA represents approximately 850 independent, community-based telecommunications companies and cooperatives and more than 400 other firms that support or are themselves engaged in the provision of communications services in the most rural portions of America. All NTCA service provider members are full service rural local exchange carriers (“RLECs”) and broadband providers, and many provide fixed and mobile wireless, video and other competitive services in rural America as well.

² *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, Sixteenth Broadband Deployment Report Notice of Inquiry*, GN Docket No. 20-269 (Aug. 19, 2020).

light of substantial confusion and concerns about the accuracy of mapping data to date, NTCA also encourages the Commission to ensure any satellite or 5G deployment data used in the Report are based upon the actual capabilities of the spectrum bands used and the realities of the area purported to be served. Finally, in response to the Commission’s inquiry regarding the impact of the COVID-19 pandemic on broadband deployment in 2020 and beyond, NTCA reports that while its members have continued to deploy high-speed Internet services throughout their communities, supply chain concerns are beginning to emerge, as these members have been told to expect delays in future delivery of fiber and other communications equipment essential to continuing their build out due to the COVID-19 pandemic.

I. MOBILE AND FIXED SERVICES ARE NOT SUBSTITUTES FOR ONE ANOTHER.

As an initial matter, the NOI proposes to evaluate the deployment of fixed and mobile services as complements to, rather than as substitutes for, one another, consistent with the Commission’s approach in previous years, including the 2020 Report.³ NTCA supports this approach. Not only do fixed and mobile services fulfill different needs (as the Commission itself has effectively acknowledged in initiating a 5G Fund proceeding distinct from other universal service programs⁴), but also even purportedly “unlimited” mobile data plans can nonetheless result in providers limiting actual data usage to ensure sufficient capacity for all users. Furthermore, the upload and download speeds currently available in most areas for mobile services are vastly different from those of fixed broadband providers. One nationwide provider

³ *Id.* at ¶¶ 8-9.

⁴ See *Establish a 5G Fund for Rural America*, GN Docket No. 20-32, *Universal Service Reform – Mobility Fund*, WT Docket No. 10-208 (closed), Notice of Proposed Rulemaking and Order (Apr. 24, 2020).

lists typical download speeds of 5 to 12 Mbps and upload speeds of 2 to 5 Mbps for its 4G LTE network and 5G speeds “depending on location,” including whether the mobile device is used in the subscriber’s home or as a truly “mobile” device.⁵

In addition to pricing and capacity differences, the types of use for mobile and fixed services differ as well. A relatively lower-speed, lower-capacity mobile broadband connection suitable for social media or similar “on-the-go” uses is not as suitable for many, more involved uses at home or work – especially over the course of weeks or months when data caps (or throttling under “unlimited plans”) can quickly come into play or when the use requires the security of a wired connection. For those uses that can be easily substituted between mobile and fixed devices and even with some providers offering more robust 5G home speeds, as noted below, 5G only operates at “5G speeds” when there is sufficient backhaul (and thus the distinction of “home” 5G vs. “other” 5G) and 5G cells are located within a short distance of where the device is being used. Furthermore, even if 5G were to materialize beyond the bounds of larger cities anytime soon, the prospect of having to rely on a mobile connection only for internet access in a community is unlikely to attract consumers looking to relocate to a rural area while retaining their existing job and transitioning to becoming a remote employee. Similarly, a declaration that mobile wireless service is “good enough” is not likely to be good enough for businesses looking to expand or relocate their operations to a rural area. These businesses look

⁵ “Important Information About Verizon Wireless Broadband Internet Access Services,” available at https://www.verizon.com/support/broadband-services/?adobe_mc=MCMID%3D39659485699721300923225068743116944816%7CMCORGID%3D843F02BE53271A1A0A490D4C%2540AdobeOrg%7CTS%3D1599855835&mboxSession=83ab8ba2a7404e148b2ddece27919059&wireless_gn_exp=0-129904 (last visited Sep. 11, 2020).

for educated workforces and sufficient infrastructure to meet their needs, and the quality of broadband services and its ability to meet their needs is part of that infrastructure they consider.⁶

The COVID-19 pandemic has demonstrated how critical high-speed broadband connections are to distance learning, remote work, and even allowing small businesses to “pivot” to new ways of keeping customers. Even as mobility offers tremendous value of its own for users, the shared capacity nature of a mobile connection, combined with the relatively lower speeds that consumers can expect via these services, should factor into whether such a connection can keep up with this type of consumer demand for data now and over the long-term – and should lead the Commission to continue evaluating fixed and mobile services separately.

II. WHEN CONSIDERING 5G AND SATELLITE DATA, THE COMMISSION MUST ENSURE THE DEPLOYMENT DATA IS ACCURATE AND VERIFIABLE.

The Commission noted in the NOI that it will begin collecting 5G New Radio deployment data this year “to ensure both the Commission and consumers have an accurate account of 5G deployment,”⁷ and asks whether and how such data should be used in the Report. To be sure, 5G will play an important role in overall broadband deployment strategies. The predicted use cases for 5G, including smart transportation, precision agriculture and other services that require the rapid transmission of large data sets, illustrate the maxim that broadband will continue to become increasingly intertwined in activities of daily living and industry. However, as with mobile services, 5G cannot be considered a substitute for a fixed broadband

⁶ See, e.g., Smart Rural Community Spotlight: Arvig (Apr. 17, 2020) <https://www.ntca.org/smart-rural-communities/arvig> (last visited Sep. 11, 2020) (a large financial services company based in Phoenix chose to open a location in a town consisting of just under three square miles and a population of 2,466 due to the gigabit speed internet service offered to businesses and residents).

⁷ NOI at ¶ 12.

service. Furthermore, if the Commission concludes 5G data would be useful to include in the Report, in order for such data to be meaningful, the Commission ensure 5G new radio deployment data is not considered in a vacuum.

Instead, to avoid the same kinds of confusion and concerns witnessed in the broader context of broadband mapping in recent years, when collecting 5G deployment data, the Commission should assess which spectrum bands are being used in a given area for 5G, assess the topography and other factors in the area that would affect coverage reach and reliability, and finally assess whether there is sufficient backhaul in that area for the speeds claimed given the spectrum limitations.⁸ In other words, much like the process the Commission is undertaking in the mapping arena, technical standards will be essential in evaluating 5G deployment claims. Setting up a small cell or radio out in the field is not enough – to achieve the kinds of speeds that are promised, the small cell or radio must also connect to a wired connection in relatively short order and the type of broadband connection will determine how fast and how far the 5G technology can reach. For instance, many spectrum bands anticipated for use in 5G deployments in urban areas are only able to travel short distances, thereby making such technologies very difficult to deliver in rural areas where there are few commercial buildings and often, only a few residences per square mile. Even densely populated urban areas can be challenging for 5G deployment because most, if not all, spectrum used to deploy 5G cannot penetrate walls or building structures.

⁸ See, e.g., “The 5G lie: The network of the future is still slow,” by Geoffrey A. Fowler, *Washington Post* (Sep. 8, 2020), available at <https://www.washingtonpost.com/technology/2020/09/08/5g-speed/> (last visited Sep. 16, 2020) (explaining how the spectrum used to deliver 5G will have a significant impact on 5G speeds, how far the signals can travel and whether the signal has the ability to penetrate walls).

Indeed, the Commission should recognize more specifically when evaluating 5G deployment data that somewhere not too far along the transmission path a wireless 5G communication must connect to fiber.⁹ Accordingly, to ensure the Report is meaningful and accurate, the Commission will need to take a very close look at any claims to deliver 5G services, especially in rural areas, to determine whether such services truly are possible based upon the fiber infrastructure in place in those areas as well as the spectrum used to deliver the 5G service.

The Commission further proposes in the NOI to include deployment estimates for satellite broadband services in the Report. As with all services, in order for such data to be meaningful, the Commission must ensure any depictions of satellite broadband deployment are accurate. This in turn means the Commission should adopt technical standards in its mapping proceeding¹⁰ that underpin satellite providers' submissions of mapping data. Such standards – which should lead to depictions of satellite providers' ability to serve every (and not just *any*) would-be consumer within a claimed coverage area – are necessary to take depictions of satellite broadband service from the theoretical to the actual. The Commission should only include satellite coverage data if the data are supported by technical standards that take depictions of satellite broadband service from the theoretical to the actual. Without such technical standards,

⁹ See, e.g., “The Role of FttH in the Development of 5G,” by Paul Budde, CircleID (Jan. 23, 2020) (“For the service to deliver the promised quality to the end-users, a fiber optic connection to the 5G base station is needed within 100 meters of where the actual 5G users are located.”), available at http://www.circleid.com/posts/20200123_the_role_of_ftth_in_the_development_of_5g/ (last visited Sep. 14, 2020).

¹⁰ See Comments of NTCA – The Rural Broadband Ass’n, *Establishing the Digital Opportunity Data Collection*, WC Docket No. 19-195, *Modernizing the FCC Form 477 Data Program*, WC Docket No. 11-10, Second Report and Order and Third Further Notice of Proposed Rulemaking, FCC 20-94 (Sep. 8, 2020), p. 14.

the Report risks misstating where satellite broadband service truly is available, as the Commission has noted “according to currently reported data, satellite service offering 25 Mbps/3 Mbps speeds is available to all but 0.03% of the U.S. population.”¹¹

Due to the Commission’s reliance on the Report when evaluating the actions to be undertaken to spur broadband deployment, obtaining and reporting an accurate assessment of the deployment status of all technologies is essential to fulfilling Congress’ goal for the Report. While the Commission might identify companies that overstate their deployment areas, such a determination comes years after the purported overstatement, by which time the Report has already been written and, quite possibly, Commission policy has been made based upon the erroneous deployment representations.¹²

III. BROADBAND PROVIDERS ARE EXPERIENCING SOME DEPLOYMENT CHALLENGES DUE TO THE COVID-19 PANDEMIC.

The Commission seeks comment in the NOI on whether the Commission’s policy efforts have helped spur broadband deployment and what additional efforts the Commission should undertake to further encourage broadband deployment throughout the U.S. The Commission also seeks comment on ways the COVID-19 pandemic may affect broadband deployment in the year 2020 and beyond.¹³

An annual survey of NTCA members found in 2019 that these companies, most of whom are small, rural broadband providers serving the most rural areas of the country, continued to

¹¹ *Wireless E911 Location Accuracy Requirements*, PS Docket No. 07-114, Second Report and Order and Order on Reconsideration, FCC 20-98 (Jul. 17, 2020), n. 274.

¹² See, e.g., *In the Matter of Barrier Communications Corp. d/b/a BarrierFree*, Notice of Apparent Liability for Forfeiture, File No.: EB-IHD-19-00029003, FCC 20-123 (Sep. 2, 2020).

¹³ NOI at ¶ 29.

deploy more and faster broadband service to their communities. Specifically, the companies deployed fiber to the home to over 63% of their serviceable locations, up from 58% in 2018, and more than 60% delivered 100 Mbps or faster download speeds, up from approximately 57% in 2018.¹⁴ This increased deployment and faster speeds would not be possible without the Commission's ongoing universal service support. Conversely, over 63% of members who completed NTCA's 2019 Broadband Survey cited regulatory uncertainty as the largest barrier to broadband deployment.¹⁵ Thus, it is critical for the Commission to continue ensuring universal service support is available to broadband providers fulfilling the critical mission of connecting *everyone* to reliable high-speed broadband service.

NTCA members were able to continue most planned deployments in spite of the COVID-19 pandemic using supplies they had already acquired. However, in response to a survey of NTCA members regarding the impact COVID-19 has had on their ability to receive equipment ordered, but not yet received, or that they planned to order for future deployment, 9 out of 10 responding members reported delays in procuring communications equipment. Of these, 33% reported delays in procuring fiber, 26% in procuring fixed electronics equipment, and 21% in procuring customer premises equipment due to COVID-related impacts on production. Nearly one-third of those reporting delays anticipated a delay of 5-8 weeks while the same amount expected delays of more than 12 weeks. Members also report delays during the pandemic due to restrictions of movement in particular areas, permits not getting processed, and contractors missing work due to illness.

¹⁴ NTCA Broadband/Internet Survey Report, Dec. 2019, pp. 5-6, available at <https://www.ntca.org/sites/default/files/documents/2019-12/2019%20Broadband%20Survey%20Report.pdf> (last visited Sep. 11, 2020).

¹⁵ *Id.* at p. 12.

Apart from potential or expected equipment fulfillment delays, the COVID-19 pandemic has demonstrated the importance of fast, reliable upload connections in order to allow for the two-way communications essential to teleworking, remote learning and telehealth. The Commission should therefore coordinate with other agencies and Congress to ensure that supply chain disruptions do not undermine broadband deployment – particularly as this may affect deployment obligations under the Commission’s own programs.¹⁶

IV. CONCLUSION

The Commission correctly proposes to continue evaluating fixed and mobile broadband services separately as users – especially now when working or learning from home in the midst of a pandemic – view them as complements rather than substitutes. When considering whether to add new types of broadband services to the Report, the Commission must first have methods firmly in place to ensure the data reported will be accurate. Without such methods, including new services in a Report intended to provide a true depiction of broadband deployment throughout the country will be meaningless at best and harmful at worst. Finally, the Commission’s universal service programs have made deployment of high-speed broadband in remote and rural areas possible, even throughout the COVID-19 pandemic; however, the Commission should coordinate with other agencies to ensure that supply chain disruptions do not undermine the good work of these programs and other efforts at advancing broadband across America.

¹⁶ Supply chain delays could also impede providers’ ability to use CARES Act funding to extend broadband service to additional homes, businesses and farms in their communities by the December 31, 2020 deadline.

Respectfully submitted,

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