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

In the Matter of

) )
Establishing the Digital Opportunity Data Collection ) WC Docket No. 19-195
) )
Modernizing the FCC Form 477 Data Program ) WC Docket No. 11-10
) )

COMMENTS OF NEXT CENTURY CITIES

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September 8, 2020
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COMMENTS OF NEXT CENTURY CITIES

I. Introduction

Next Century Cities ("NCC")\(^1\) submits this reply in response to the Federal Communications Commission’s ("FCC" or "Commission") request for comment on Establishing the Digital Opportunity Data Collection and Modernizing the FCC Form 477 Data Program in the above captioned docket.\(^2\) Next Century Cities is a nonprofit and nonpartisan organization founded to support mayors and local government leaders who are working to expand access to fast, affordable, reliable broadband internet access in their communities. Working together, member communities collaborate on ways to build next-generation networks, increase affordability, and identify unserved and underserved populations.

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\(^1\) Next Century Cities is a nonprofit nonpartisan 501(c)(3) coalition of over 200 member municipalities that works collaboratively with local leaders to ensure reliable and affordable broadband access for every community, while helping others realize the economic, social and public health importance of high-speed connectivity.

Closing the digital divide and connecting every American to broadband, regardless of zip code, should be the Commission’s highest priority. That goal requires high-quality mapping data that clearly lays out what broadband speeds are available in what areas and at what price. Both are critical for determining which areas of the nation remain unserved and which may have service but barriers to adoption make it impossible to engage in telework, distance learning, and telehealth programs that demand robust connections.

The overstatement of the number of American’s with access to affordable and reliable broadband has disadvantaged households that live on the same census blocks where some level of service is available. Even where no service is currently available, inaccurate data can interfere with federal and state funding opportunities.

Additionally, the Commission must work to ensure that all data, not just data provided by third parties and government entities, is verified and can be challenged. This will ensure that information turned over by providers as well as data submitted by third parties and government entities endure the same level of scrutiny. Providers have demonstrated a willingness to overstate service coverage. They must be held to new verification standards, otherwise the Commission risks the continual overreporting of served areas and speeds.3

Similarly, the Commission must make its challenge process as straightforward and accessible as possible. The easier the challenge process is to navigate, the easier it will be for governments, providers of all sizes, and individuals with their own data to provide a much-needed check on the agency’s data points. The greater the participation in the challenge

process, the more likely it is that the data ultimately included in the Commission’s maps will be accurate and provide a useful resource that can be relied upon by researchers, providers, and governments alike.

The Commission should seek to make as much of the collected data available to the public as possible, allowing interested parties an opportunity to review, provide feedback, or challenge data when necessary. Additional data points in the broadband mapping process will increase transparency and accountability and, ultimately, will help the Commission to instill confidence that the newly generated maps are accurate and reliable.

Finally, with regards to enforcement, Next Century Cities reiterates that the Commission must look at the breadth of the information a filer submits. A proportionality standard will incentivize large carriers to ensure their data is correct and, importantly, will give entities clear guidelines on at what point the Commission will investigate inaccuracies. Additionally, the use of a willful and knowing standard will introduce ambiguity and decrease the effectiveness of Commission enforcement actions as prolonged legal battles to define “willful and knowing” will be invoked for clarity.

The first step to connecting the unconnected and underconnected portions of the United States requires identifying where those areas are. The Commission must ensure that new broadband availability maps are accurate, reliable, and clear so that anyone who seeks to use them is able to do so. Form 477 data is inherently unreliable, and internet service providers ("ISP") cannot be allowed to continue to offer it as the sole basis for mapping data. The Commission can implement changes now that make the data submission and challenge process
more effective. It would help eliminate doubt in the accuracy and reliability both the data
collection process and the finished product that is available for public consumption.

II. The Commission Should Require Providers to Submit Additional Mapping Information Based on Different Speeds and Cost Data.

The collection of new mapping data is an important first step in ensuring that every
American will have access to affordable, high-speed, reliable internet access. The Commission
should collect additional information regarding what speeds providers offer in which locations at
what cost. This information will help ensure that the Commission is able to develop programs for
and direct funding towards areas that lack access, do not have high rates of adoption, or would be
better served by different communications technologies than currently employed. It bears
emphasis that the Commission’s fundamental mandate under Section 1 of the Communications
Act is to “make available, so far as possible, to all the people of the United States, ... wire and
radio communication service with adequate facilities at reasonable charges, ...” 4 Without highly
granular information regarding speed, location, and cost, it will be impossible for the
Commission to determine which areas are adequately served and whether carriers’ charges are
“reasonable.”

A. Speed Reporting

The Commission seeks comment on the proposal that for speeds over 25 Mbps download
and 3 Mbps upload providers be required to report the maximum advertised download and
upload speeds associated with the broadband internet access service that a provider offers in an
area. 5 The Commission also seeks comment on the viability of two speed tiers if speeds offered

5 Digital Opportunity Data Collection FNPRM at 39 para. 91.
in an area are lower than 25/3 Mbps. The Commission proposes the use of a speed tier for speeds
greater than 200 kbps in at least one direction and less than 10/1 Mbps, and another for speeds
greater than or equal to 10/1 Mbps and less than 25/3 Mbps.6

Unfortunately, these tiers would not adequately account for the difference between
speeds advertised versus what is actually delivered to households, often resulting in access to
slower speeds than those advertised.7 In West Virginia, for instance, residents pay high prices for
slow internet speeds.8 It has become such a crippling issue, that Senator Manchin led a campaign
for residents to collect their own speed tests to correct FCC mapping data.9 While informative, a
tiered approach will not give the Commission the granular data it needs to tailor funding or
programmatic decisions towards expanding broadband access for the communities with the
greatest needs. Thus, the Commission should require that providers report the speeds and cost of
the fastest offering in a given area as well as the speed and cost of the package with the highest
number of subscribers. This should be the requirement regardless of whether the speed falls
above or below the minimum 25/3 Mbps broadband requirement set forth by the Commission.

Showing which speeds are available to consumers in a given market and the actual
speeds that users experience is a critical part of the analysis to identify gaps in broadband access.
It would also help to identify which areas urgently need network upgrades. As NCC has stated
previously, any serious effort to eliminate broadband deployment gaps cannot enable a provider

6 Id.
7 See Chris Hoffman, Why You Probably Aren’t Getting the Internet Speeds You’re Paying For (and How to Tell) (July 10, 2017),
https://www.howtogeek.com/165321/why-you-probably-arent-getting-the-internet-speeds-youre-paying-for-and-how-to-tell/#:~:text=Actual%20vs.&text=Data%20showing%20that%20most%20people,cases%2C%20the%20speeds%20are%20slower.
8 Claire Park, The Cost of Connectivity in West Virginia (April 1, 2020),
9 See Kelsey Souto, Sen. Manchin collect 1,000 speed tests (June 24, 2020),
https://www.wymt.com/2020/06/25/sen-manchin-collects-more-than-1000-speed-tests/?utm_campaign=Newsletters
&utm_source=sendgrid&utm_medium=email.
to claim the ability to serve everyone in a given area at a particular level of speed and latency performance, with certain usage allowances, simply because that provider believes it can serve any one consumer at those parameters.\textsuperscript{10}

Further, it is simply not enough to allow providers to report which speeds they are closest to providing.\textsuperscript{11} Doing so does not accurately reflect the speeds available to consumers nor provide stakeholders with specific information about where speeds may be unreliable or inadequate. Consequently, if providers are required to submit the maximum speeds they offer and the speed with the highest subscriber level, it will help drive competition and incentivise network build-out and upgrades in unserved or underserved areas.\textsuperscript{12}

Transparency benefits unserved and underserved communities while injecting competition into the market. Specifically, collecting information on the speed tier with the highest subscriptions will help illuminate, for both consumers and other providers, what speeds are available in what areas. If these speeds are made publicly available, other providers may be able to provide either higher speeds for the same price or the same speeds at a lower cost. Naturally, this will help achieve one of the Commission's objectives to drive competition by alerting competitors to potential markets for entry. It will also provide a clearer picture of what is available at various price points for consumers seeking internet access.

For similar reasons, this data would be incredibly valuable to researchers and academics. Instead of relying only on the data on the fastest offering a provider makes available in certain

\textsuperscript{10} Next Century Cities; The Institute For Local Self-reliance; Center For Rural Strategies; Tribal Digital Village Network; National Digital Inclusion Alliance; and X-lab Oct. 7, 2019 Reply at 3 (citing Comments of NTCA, WC Docket No. 19-195 (filed on Sept. 23, 2019), at 4 (NCC Reply Comments).

\textsuperscript{11} See Nicole George, Which providers' internet speeds live up to the hype — actual vs. advertised speeds, allconnect (Feb. 5, 2019), https://www.allconnect.com/blog/advertised-vs-actual-internet-speeds.

\textsuperscript{12} \textit{Id.} at 4.
areas, researchers, academics, and policymakers would be able to base critical decisions and extrapolations on the speeds that households’ actually experience. The Commission should adopt a standard by which they are to report the fastest speed they offer in a particular area, but should also seek to collect data on the speed tier with the highest subscriber level, which will more accurately illustrate the state of local connectivity.

Providers tend to oversubscribe users to their networks, anticipating that only some portion of subscribers will access the network at the same time. In light of new work-from-home, remote learning, and telemedicine mandates, it is essential to collect more granular data about subscription levels that users can reliably access. The number of subscribers using each network at any given time may be significantly higher than providers anticipated when determining appropriate oversubscription levels. High internet traffic can compromise the speed and quality of service, meaning advertised speeds alone cannot fully capture whether subscribers have the service they need to connect with teachers, employers, and healthcare providers. Thus, collecting information about the number of subscribers served by each provider with the same infrastructure would better inform policymakers about appropriate benchmark speeds as usage fluctuates over time.

**B. Location Information**

The Commission must ensure this data collection has actionable information on where broadband internet access is available, not where it might be available under the right

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15 Id.
conditions.\textsuperscript{16} As such, if the Commission continues collection and use of only provider submitted data, the Commission must ensure that all collected data is verifiable. We also reiterate our suggestion for the Commission to allow for some additional, voluntary reporting of where access \textit{may} be available but cannot be certified. For example, this data may include multifamily dwelling units in cities and rural areas with challenging terrain.\textsuperscript{17} These areas would not be considered served but would provide useful information to households in search of service and policymakers.

Fixed wireless providers, as well as those offering DSL, would have some safe harbor given the challenges associated with certifying specific levels of access for these technologies. In exchange, these territories would not be automatically protected from subsidies aimed at ensuring that all American’s have high-quality internet access.\textsuperscript{18}

Provider submitted Form 477 data has led to serious discrepancies between what access has been reported, and the reality on the ground. The Commission must collect and verify data submitted by state, local, and Tribal governments in order to more accurately reflect the reality of broadband access felt by consumers across the nation.

As the discrepancies between current agency mapping and community level data continues to be pushed to the forefront,\textsuperscript{19} the Commission must ensure that the areas where providers report that service is available are, in-fact, served. It is understood that there may be some challenge in determining the service level of certain technologies in certain areas due to

\begin{footnotesize}
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\item NCC Reply Comments at 4.
\item Id.
\item Id.
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geographical factors. However, there is a net gain when increasing the granularity of location
data the Commission uses to create its maps leads to greater accuracy and reliability.

C. Pricing Data

The COVID-19 pandemic has shown that access to affordable, high-speed, reliable
internet access is a necessity that everyone can no longer live without. Yet, there is a prominent
broadband affordability problem in the United States which remains one of the primary barriers
to broadband adoption. As NCC has publicly stated, the broadband market cannot operate
optimally without pricing transparency. Pricing data trends are a key factor in determining
whether residents of a certain area can afford to connect to the network infrastructure. Notably,
as New America’s Open Technology Institute reported, U.S. consumers pay the highest average
costs out of any region they studied. High prices have been identified as one of the major
causes of the digital divide. Still, there is no pricing information in the agency’s datasets even
though it is a prerequisite to crafting affordability solutions.

Policymakers rightfully focused on closing the digital divide are missing a key piece of
information. Pricing data will not only be useful for determining which areas have access to
certain speeds at specific price points, but also forms the basis for a new evidentiary record that

20 Will Carless, How the US’ Massive Failure to Close Digital Divide Got Exposed by Coronavirus (June 22, 2020),
21 NCC Reply Comments at 7.
22 Id.
23 Open Technology Institute, The Cost of Connectivity 2020 at 29 (2020),
https://d1y8sb8igg2f8e.cloudfront.net/documents/The_Cost_of_Connectivity_2020__XatkXnf.pdf (OTI Report)
(highlighting the average monthly price in the United States is $68.38—higher than the average price for all of
North America at $61.46, Europe at $44.71, and Asia at $62.41).
24 Monica Anderson and Madhumitha Kumar, Digital divide persists even as lower-income Americans make gains in
tech adoption (May 7, 2019),
https://www.pewresearch.org/fact-tank/2019/05/07/digital-divide-persists-even-as-lower-income
americans-make-gains-in-tech-adoption/ (A survey in 2019 revealed that whereas 81 percent of households with
incomes between $30,000 and $99,000 have home high-speed broadband service, 44 percent of adults with
household incomes below $30,000 a year do not).
may inform regulatory and antitrust policy moving forward.\textsuperscript{25} The Commission is in a prime position to require ISPs to report their pricing data alongside their speed data. This is information that the general public and independent researchers are unable to collect for themselves. Moreover, a thorough broadband affordability assessment is long overdue. Collecting and disseminating pricing information used to analyze affordability will provide the Commission with critical insights into an ongoing barrier to adoption while arming consumers with information on the best choice of broadband offering for their needs.

Given the Commission's fundamental mandate under Section 1 of the Communications Act, it would be impossible for the Commission to determine whether carriers’ charges are reasonable with nothing to compare them to. The urgency of expanding broadband access and increasing adoption rates is sufficient cause for the Commission to start collecting pricing data. Broadband deployment reporting that does not include an affordability assessment is incomplete.

\section*{III. The Commission Must Ensure That the Data Challenge Process Encourages Participation.}

NCC agrees with the Commission that “input from the people who live and work in the areas that a service provider purports to serve also plays a vital role in ensuring the quality of these maps, helping to identify areas where the data submitted does not align with the reality on the ground.”\textsuperscript{26} The Broadband DATA Act tasks the Commission with establishing a user-friendly challenge process by which state, local, and Tribal governments in addition to individuals may submit coverage data to challenge the accuracy of provider reported data.\textsuperscript{27} The challenge

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\textsuperscript{25} OTI Report at 63.  
\textsuperscript{26} Digital Opportunity Data Collection FNPRM at 51 Para. 126.  
\textsuperscript{27} 47 USC § 642(b)(5)(A) (2020).
\end{flushleft}
process that the Commission implements must be able to differentiate between the classes of information provided whether they come from a provider, government entity, or individual.

The Commission’s proposal to use the same portal that it proposes to use for crowdsourced submissions is useful as it will not require entities that wish to either provide data or a challenge from needing to juggle multiple portals. Keeping these similar data submissions together will also reduce the number of cross-postings of data and minimize confusion as to where to submit speed test data regardless of whether it is related to a challenge. Furthermore, implementing a consumer challenge process, while statutorily necessary, also provides a much-needed check on ISP-reported data. The challenge process should be easy for public stakeholders to submit their own data as there is an overarching benefit when interested parties are able to verify the accuracy of Form 477 data.

Additionally, as the Open Technology Institute and Public Knowledge have suggested, challenge data must be anonymized in order to protect challengers from provider repercussions. Empowering state, local, and Tribal governments, as well as individuals and other interested third parties, to participate in the challenge process will improve accuracy and provide the Commission with more data than they may otherwise receive absent some kind of anonymization procedure.

The Commission also seeks comment on whether the challenger processes should be differentiated with respect to individual consumers and state, local and Tribal government entities. The resources available for each to verify the data they collect is wildly different and, therefore, warrants that the Commission differentiate between them. An individual may have

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29 Digital Opportunity Data Collection FNPRM at 53 paras. 129-30.
relatively little way to verify the data collected outside of the historic accuracy of the speed tests available online whereas a large ISP or a governmental agency may have the time and resources, for instance, to collect propagation data as well as how geographical features affect wireless signal strength over distances.

Notably, the proposed rules place the onus on the consumer to collect the data and the ISP’s response to their challenge.\(^\text{30}\) These rules will likely result in consumers failing to challenge what providers have stated even if the provider data is inaccurate simply because the time and effort required to elicit a response from a provider. The disparity in expertise and resources between the parties lends itself in favor of the provider.

Allowing state, local, and Tribal governments as well as individuals to provide challenge data is an important check on provider submitted data. It is also imperative that the Commission ensure that the challenges posed by individuals without access to large amounts of time and resources will not go unheard simply because they are unable to garner a response from a provider or, even more worrisome, they have limited access to requisite resources to collect challenge data.

\textbf{IV. The Commission Must Make Mapping Data Available to the Public in a Timely Fashion.}

Transparency and accountability are the cornerstone of good policymaking. Currently, Form 477 data becomes public between 12 to 18 months after it is collected. By the time the results are shared with the public, they are already obsolete.

\(^{30}\) \textit{Id.} at para. 130.
As stated above, releasing broadband mapping data to the public allows for ISPs to submit data that is not contestable until well after the effects of the skewed maps have further disadvantaged unserved and underserved communities. For instance, Free Press revealed that at least one ISP falsely reported to provide fixed broadband coverage for the entirety of eight states. The ISP was found not to provide any Fiber To The Home service, and only provided wireless internet access to some of the census blocks in each of the eight states. If the data that the ISP submitted was made available to the public in a timely manner, it could have been disputed, allowing communities that are working to close the digital divide an opportunity to document and describe the far-reaching impact of false reporting.

Furthermore, the Commission has previously explained that it does not find coverage and speed data to be competitively sensitive. Given that providers routinely publish and advertise expected speeds, there is little if any risk of competitive harm to service. If the Commission agrees that there is no competitive harm garnered from releasing speed and location data, there is then no excuse as to why this data cannot be released as expeditiously as necessary. Interested parties should have a meaningful opportunity to challenge or lodge complaints to correct data submissions. Without public disclosure, the only stakeholder that is left in the dark is the consumer.

Finally, the Commission should require other key terms such as circumstances in which usage is capped, deprioritized, or otherwise slowed or limited be made available to the public.

31 Corian Zacher, *Paving The Road To Fiber*, 18 Colo. Tech. L.J. 261, 279 (2020) (noting that these types of errors skew mapping data and harm the Commission’s message that broadband is being deployed quickly and efficiently across the nation).
32 *Id.*
34 Next Century Cities et al. Sept. 23, 2019 Comments at 10.
The existence of these features is incredibly important to a consumer who wishes to understand the usage limitations that will be imposed on their service.\(^{35}\)

V. There are Key Auditing and Enforcement Procedures and Terms That the Commission Should Adopt in Order to Increase and Maintain Public Trust in New Broadband Availability Maps.

A. The Commission Should Institute an Inaccuracy Reporting System Based on Proportionality.

Proper auditing and enforcement of data collection standards is crucial for maintaining accurate and robust mapping data. The Commission should seek to set a threshold for errors to at least fewer than one half of one percent of the number of premises covered.\(^{36}\) If a provider is found to have submitted data that exceeds this threshold, a simple and transparent scale that escalates based on the number of premises and the proportion to those covered by the service provider will incentivize the submission of accurate data. It will also help to ensure that providers of all sizes are ensuring their data is accurate while providing leeway for small providers and government entities that do not have the resources to comply and submit accurate information because of lack of resources.\(^{37}\)

Testing the veracity of data submissions should be incorporated into the Commission’s protocols. Moreover, waiting to investigate complaints of inaccurate data only when a “critical mass” of crowdsourced filing suggests that a provider has submitted inaccurate or incomplete data could lead to serious oversight of misreported data simply because a majority of complaints fail to highlight the inaccurate data set. If the Commission was to adopt a proportionality

\(^{35}\) Id. at 11.
\(^{36}\) Id. at 6.
\(^{37}\) Id.
standard, it would have the ability to set a standard regarding the threshold of errors over which a provider would have to respond prior to the next submission window.\textsuperscript{38}

In addition, as state, local, and Tribal governments have a great incentive to ensure that maps are correct and often receive complaints from their residents and businesses. The Commission should work with the Universal Service Administrative Company (USAC) to institute a way through which these governments can submit bulk data regarding errors. Deployment of infrastructure and support resources based on inaccurate data is something that policymakers at every level of government seeks to avoid.\textsuperscript{39} Creating a process by which government entities, uniquely positioned to evaluate connectivity needs, can submit bulk data will allow them to provide both complaints and evidence of inaccurate data. In turn, USAC will be better equipped to take swift action and investigate inaccuracies without the significant delay of evidentiary discovery.

\textit{B. A Willful and Knowingly Standard is Ambiguous and Will Inevitably Lead to Uncertainty in Enforcement.}

The Commission seeks comment on what evidence is necessary to prove an entity or individual's intent with regards to the creation of a “willfully a knowingly” standard for the submission of inaccurate mapping data. The Commission notes that intent is found in cases where a false statement is “coupled with proof that the party . . . [knew] of its falsity.”\textsuperscript{40} The Commission points to other statutes, such as section 510(a) of the Communications Act that includes a “willful and knowing” standard, but does not provide examples of the types of

\textsuperscript{38} \textit{Id.}
\textsuperscript{39} \textit{Id.}
\textsuperscript{40} Digital Opportunity Data Collection FNPRM at 65 para. 175 (citing \textit{Riverside Youth}, 23 FCC Rcd 10360 (MB 2008); see also \textit{SBC Communications, Inc.}, 16 FCC Rcd 19091, 19115, para. 66 (2001)).
evidence that are used to prove claims under Section 510(a).\textsuperscript{41} In the absence of examples of evidence used to prove a willful and knowing standard, implementing such a standard will delay completion of new Commission maps while parties are engaged in litigation over the amount of “proof” needed and whether the type of evidence offered is enough. Ultimately, this approach is a recipe for the reduction of accountability and, again, significantly favors entities with enough resources to survive protracted litigation.

VI. Conclusion

Communities all across the nation need access to fast, reliable, and affordable broadband access. Bringing broadband within reach for every community, particularly those with a demonstrable need, requires a system overhaul in which the Commission generates broadband mapping analysis that clearly and accurately reflects who is and is not connected, accompanied by a challenge process that promotes participation. However, no solution sought here should be a permanent one. And it cannot solely rely on ISP generated data. The Commission should partner with state, local, and Tribal leaders, especially those in hard to reach rural areas that often find themselves on the wrong side of the digital divide, in order to update and review mapping procedures. This will help to ensure that the Commission’s ability to accurately map evolves as technologies and standards change.

\textsuperscript{41} \textit{Id.} at 65 para. 175.