

In the Matter of)
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Modernizing the FCC Form 477 Data Program) WC Docket No. 11-10

I. Introduction

II. The Commission Should Collect Standardized Mobile Data

The City believes that the data submissions of mobile broadband providers can be significantly improved by the implementation of a number of the Commission’s proposals. The Commission can substantially increase the utility of the data submitted by standardizing the propagation model for 4G LTE and later-generation technologies (as they are deployed).² Specifying median and edge speeds for use in propagation models will increase ease in comparison beyond that achieved by requiring providers to report their own speeds. In such a model, the City believes that a median download speed of 10 Mbps with an edge speed of 3 Mbps may be sufficient for current 4G LTE deployments, but is unlikely to be sufficient for future-generation deployments.³ The City agrees with the Commission that a “more meaningful disclosure of the methodologies used by individual service providers allow a better reflection of actual consumer experience . . .”⁴ and supports the Commission standardizing the parameters for submission to increase the accuracy of the data and reduce uncertainty in comparisons between providers.

⁴ FNPRM ¶ 11.

A number of commenters noted that the Commission is already undertaking a data collection based on a standardized propagation model in the Mobility Fund Phase II (“MF-II”) proceeding,⁵ and supported the use of a similar data collection here.⁶ But many suggested the Commission wait to analyze the MF-II data before making adjustments to the Form 477.⁷ The City does not believe that any delay is warranted. The MF-II collection demonstrates the usefulness of the data submitted pursuant to a standardized propagation model and the ability of mobile providers to undertake such a collection. The Commission should release a standardized propagation model for the collection of Form 477 data without delay.

III. The Commission Should Increase the Granularity of Mobile and Fixed Data Collections

The City believes that the Form 477 data collection would be greatly increased in utility if data were collected at a more granular level for both mobile and fixed providers. The City agrees with the Commission in its belief that state level data is not sufficiently granular in the mobile context,⁸ and that data more granular than census block level data would be “extremely useful” in the fixed context.⁹

Mobile Broadband Deployment Data

In regards to mobile data collections, the City believes that if the Commission adopts a standardized propagation model for submission of mobile data on the Form 477 form, and publicly releases both the parameters of the model and the data submitted by mobile providers, that collection could serve to highlight the geographic deployment and availability of mobile services.

Fixed Broadband Deployment Data

As the Commission notes in the FNPRM, the Form 477 currently collects data at the census block level, requiring reporting of last-mile technologies used for all blocks in which providers make connections available to end-user premises, providing a list of blocks where a provider does or could provide service, a system that “make[s] it difficult to understand availability.”¹⁰ The Commission proposes to require providers to report three categories of information: areas served, along with the total number of customers that could be served within a given period of time; areas served, where no additional customers can be accommodated; and areas where there are no customers, but customers could be served within a given period of time.¹¹ The City supports this change and recommends that

⁵ See, e.g., AT&T, Comment in the matter of Modernizing the FCC Form 477 Data Program at 4-5 (Oct. 10, 2017) (*hereinafter* “Comments of AT&T”); T-Mobile, Comment in the matter of Modernizing the FCC Form 477 Data Program at 2 (Oct. 10, 2017) (*hereinafter* “Comments of T-Mobile”); Competitive Carriers Assoc., Comment in the matter of Modernizing the FCC Form 477 Data Program at 1-2 (Oct. 10, 2017) (*hereinafter* “Comments of the Competitive Carriers Assoc.”); CTIA, Comment in the matter of Modernizing the FCC Form 477 Data Program at 2 (Oct. 10, 2017) (*hereinafter* “Comments of CTIA”); and Verizon, Comment in the matter of Modernizing the FCC Form 477 Data Program at 2 (Oct. 10, 2017) (*hereinafter* “Comments of Verizon”).

⁶ See, e.g., Comments of AT&T at 5; and Comments of T-Mobile at 7.

⁷ See, e.g., Comments of the Competitive Carriers Assoc. at 1-2; Comments of T-Mobile at 7; Comments of CTIA at 6; and Comments of Verizon at 3.

⁸ FNPRM ¶ 27.

⁹ FNPRM ¶ 37.

¹⁰ FNPRM ¶ 33.

¹¹ FNPRM ¶ 34.

the Commission also standardize the measure of where service is available, setting specific metrics of time, cost, distance, or other parameters that would determine where a provider would submit data for areas that have service available, but are not actually being served. This should guard against submissions that do not accurately represent deployment and availability.

The City also agrees with the Commission that more granular data about the deployment of fixed services would be useful,¹² and that the Commission should adopt a collection at a sub-census block level.

Submission of Rasters Rather than Shapefiles

Further, the Commission should require the submission of rasters in lieu of shapefiles by fixed and mobile providers when submitting deployment files.¹³ As the Commission notes, the submission of rasters would be less burdensome for filers, and would allow the Commission to ensure the consistency of shapefiles created from the rasters when converting them for analysis.¹⁴

IV. The Commission Should Collect On-the-Ground Data

The City also agrees with the Commission that understanding the actual consumer experience requires more than theoretical propagation modeling and supports supplementing the Form 477 collection with on-the-ground data. On-the-ground data should include actual speed data, at the most granular geographic level possible. The City agrees with the commenters who noted that on-the-ground data does not need to come from the providers themselves and could come from third-party sources,¹⁵ or from the Commission's own speed test app, especially if that capability is made available to carry out tests of fixed broadband connections by end-users, to ensure data is reliably collected using the same methodology across technologies.

However, the City believes a data submission directly from the providers of users' upload and download speeds, latency, and packet loss, along with other measurements specified by the Commission, would provide not only more complete and accurate data, but also data that is less likely to include any opt-in biases based on a user's choice of if and when to conduct a speed test. The Commission should also consider requiring providers to submit data on user experience collected on their own networks, based on a specified minimum number of observations, collected during peak hours, and submitted at least at the census block level, or the same level of granularity required of fixed broadband submissions.

¹² FNPRM ¶¶ 36-37.

¹³ See, e.g., Comments of AT&T at 6 (supporting a change from the submission of shapefiles to the submission of rasters).

¹⁴ FNPRM at fn. 20.

¹⁵ See, e.g., Comments of AT&T at 8; Comments of T-Mobile at 12; West Virginia Broadband Enhancement Council, Comment in the matter of Modernizing the FCC Form 477 Data Program at 4 (Oct. 6, 2017) (*hereinafter* "Comments of the West Virginia Broadband Enhancement Council") (describing the Council's own collection of on-the-ground data with a "Speed Test Portal [that] uses an Ookla speed-test interface to gauge the speed a user experiences."); and California Public Utilities Commission, Comment in the matter of Modernizing the FCC Form 477 Data Program at 6-7 (Sept. 25, 2017) (*hereinafter* "Comments of the California PUC") (describing the Public Utility Commission's own speed, quality, and reliability tests).

Another important aspect of consumer experience is pricing and data allowance information. The City requests that the Commission require that mobile and fixed providers also report pricing information that corresponds with the speed data they submit, as well as information about any monthly data allowances or caps implemented by the provider. The Commission's rules already require that providers make consumers aware of information requiring the disclosure of pricing; other charges; and monthly data allowances.¹⁶ Adding this information to providers' Form 477 reporting would increase transparency and accountability while also ensuring consumers are fully informed and able to make reasoned choices in competitive markets.

Further, the Commission can incorporate consumer complaints received to provide a fuller picture of the state of technology. The addition of this data, while potentially one-sided (the City recognizes that the Commission likely gets few messages from Americans whose broadband connection is functioning as-expected), is still useful for comparative purposes. If analyzed and published alongside Form 477 data, it could enable policymakers and the public to understand the relative number and types of complaints filed against providers. The Commission's informal complaint system already collects user descriptions of issues, technology used to provider service, name of the broadband provider, and name and location of the customer, among other items.¹⁷ Stripped of identifying data like names, and with location data obscured to the census block level, or the same level of granularity required of fixed broadband submissions, this information could help provide consumers and policymakers a more complete view of the service provided.

V. The Commission Should Make More Data Public

The City welcomes the Commission's proposal to make more collected data public and supports the release of as much data as possible in a machine-readable format. Opening data to the public provides accessibility, transparency, and accountability, while giving policymakers and consumers the ability to make informed choices and decisions.

Mobile Broadband Minimum Advertised Speeds

The City supports the Commission's proposal to make minimum advertised speed data public; this data is already available from other sources, and is not commercially sensitive.¹⁸ Releasing this information alongside other Form 477 data will enable easier analysis of the data,¹⁹ and will serve to equalize the mobile broadband collection with the fixed broadband collection, where advertised speed data is already collected.

¹⁶ See, Federal Communications Commission, Report and Order on Remand, Declaratory Ruling, and Order, Protecting and Promoting the Open Internet, GN Docket No. 14-28 at III.C.3.b. (the City notes that the Commission has asked for comment on these rules in its Notice of Proposed Rulemaking in the matter of Restoring Internet Freedom (WC Docket No. 17-108, ¶¶ 89-91 (May 18, 2017)), and the City has and will continue to comment on that proceeding in that docket).

¹⁷ See, e.g., *Internet Complaint*, Federal Communications Commission Consumer Complaint Center (last visited Oct. 4, 2017), https://consumercomplaints.fcc.gov/hc/en-us/requests/new?ticket_form_id=38824.

¹⁸ FNPRM at ¶ 51.

¹⁹ See also Comments of the California PUC at 8-9.

Pricing and Data Allowance Information

The Commission, if it chooses to collect such data, should publish pricing and data allowance information. This data is already made available by the providers themselves and is not commercially sensitive, but easy availability of this information will aid in developing and evaluating policies that encourage broadband deployment.

Mobile Broadband Propagation Models

As noted above, the City believes the Commission should set and publish mobile broadband propagation model parameters for the Form 477. If the Commission declines to do so, it should, at a minimum, require that providers submit to the Commission the parameters necessary to understand their submissions and compare those submissions against those of other providers. The submitted propagation model parameters should be published alongside other Form 477 data to enable evaluation by policymakers and the public.

National Broadband Map

The City also supports Commission action to consolidate broadband data into a searchable national map, in addition to the various methods it already utilizes to make Form 477 data available to the public and relevant stakeholders.²⁰

National-level, Fixed Broadband Subscriber Counts

The City supports the Commission's proposal to make public the number of subscribers at each reported speed as a manner of providing a "meaningful metric of the state of broadband adoption in the U.S."²¹ However, the City believes that releasing a single, national number does not provide a useful metric for those concerned with availability or access in smaller geographical areas. Instead, the City suggests that the data be released at least by state, and more preferably by census tracts or blocks.

Although individual broadband providers have long argued that the release of geographically granular subscription numbers would result in competitive harm to themselves and should be protected from public disclosure, the City questions why this position should continue to be an impediment to public availability of such information. Individual industry participants have argued that if competitors know where they are being successful or unsuccessful in achieving subscribership, such competitors will be better able to structure and target their own efforts to mount effective competitive challenges. That may well be true, but it is unclear why such a result would present any public harm or be contrary to better ensuring the benefits of competition in the broadband marketplace.

²⁰ FNPRM ¶ 58. *See also*, National States Geographic Information Council, Comment in the matter of Modernizing the FCC Form 477 Data Program at 2 (Oct. 10, 2017); *and* Open Technology Institute at New America, Comment in the matter of Modernizing the FCC Form 477 Data Program at 10-11 (Oct. 10, 2017) (requesting that the Commission incorporate Form 477 data into a broadband map).

²¹ FNPRM ¶ 53.

If vigorous competition is a desirable goal, information that, by the admission of industry representatives themselves, would if available heighten such competition should not be protected from disclosure. In the past, arguments against such disclosure have been accepted where the disclosure, and thus the competitive effects, would be asymmetrical, i.e. applicable to some competitors but not others, and thus create inequitable competitive advantages. But if the Commission in this proceeding applies comparable informational requirements to the full range of broadband providers in a functionally symmetrical manner, as the City has suggested above, there should be no significant policy rationale to withhold such data from the public, and no reason for providers to fear the disclosure of such information except to the extent they seek (against the public interest) to protect themselves from vigorous competition.

Subscriber data is particularly important in evaluating policy success and failure, and future policy alternatives, to the extent the ultimate goal of broadband access and availability policies is not merely physical access to broadband service but broadband service that is sufficiently useful, affordable, and appealing that potential customers actually subscribe to broadband service. Physical availability of the infrastructure is a necessary, but not sufficient, condition to that ultimate goal. Landlines in the street or wireless service propagating in a community is of ultimate value only if, when, and to the extent the available service is used. If broadband service is physically available to every household in a community, but few in the community can (for example) afford financially to subscribe to the service, it is extremely important for policymakers, and the public, to know that and to be able to confirm that information with reliable, accurate data at the most granular possible level.

State and Local Access to Data

The City understands that not all data can be made public; legitimate concerns about privacy and confidentiality argue for private treatment of certain information by the Commission. However, sharing of full access to Form 477 data with states and local authorities will allow them to develop well-reasoned, data-supported policies to speed the deployment and availability of broadband service. Further, it will reduce burdens on providers by enabling states and localities to take advantage of data that has already been collected, rather than turning to new data collections from providers when information is needed.²²

VI. The Commission Should Increase Not Decrease the Form 477 Filing Frequency

The City believes the current twice-yearly filing, with multi-month long filing windows, may not be frequent enough, given the pace of broadband technology and deployment, and the need for the public and policymakers to stay up-to-date on the state of broadband. Rather than decreasing the filing frequency of such a valuable resource, the Commission should consider tighter filing deadlines, and the option of filing more often to address the need for the Commission, the public, and other policymakers to stay up-to-date on the state of broadband.

²² See also, Comments of the West Virginia Broadband Enhancement Council.

VII. Conclusion

The City welcomes the Commission's ongoing efforts to enhance and improve Form 477 broadband deployment data collection and increase the public availability of the data. Accurate and useful data is critical for sound, data-driven policymaking and for making universal broadband access a reality.

Respectfully,

The City of New York
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