

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 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
NTCA–THE RURAL BROADBAND ASSOCIATION**



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NTCA recommends the Commission to adopt a challenge process that serves as a refinement of maps prior to their use in any significant policy or finding decisions. This approach will build upon the foundation of reporting standards created with respect to the submission of mapping data and will promote the accuracy of coverage depictions. Accurate broadband maps can only be obtained through *both* upfront, commonly-applicable reporting standards that increase the precision of initial data submissions *and* validation (or “challenge”) procedures that then account for errors as well as the passage of time before maps are used for critical decisions. Absent such a process, questions will persist as to whether even the most granular data can be relied upon by the Commission in making important policy and funding decisions. Moreover, due to the important steps the Commission has already taken to tighten initial reporting standards, these challenges will not only take place far less often but will also proceed much more efficiently.

The consumer interest at issue here cannot be overstated – a “false positive” depiction of service availability could leave an unserved consumer (perhaps struggling today, or even failing, to participate in online learning or find a job via the Internet) to wait even longer for something that many Americans take for granted if funding is not directed to where they live due to mistaken depictions of coverage on a map. Policy decisions that redirect support based on overstated coverage will harm consumers as well if support necessary to perpetuate and advance the availability of “reasonably comparable” service is withdrawn. In each of these scenarios, it is the consumer that bears the consequences of inaccurate maps – yet this can easily be avoided with the challenge process as proposed herein.

The use of the challenge process as a final check on maps is expressly contemplated by the Broadband DATA Act, which sets forth a clear congressional directive for a final “sanity check” as necessary and useful to direct funds distributed based on the maps to where those funds are truly needed. The challenge process as discussed herein therefore meets that requirement and advances as well the Broadband DATA Act requirement for a single, user-friendly challenge process that is open to several categories of entities to refine baseline mapping data based on these parties’ unique perspectives prior to its use for a specific purpose.

The Commission should also ensure that the challenge, crowdsourcing, and submission of third-party verified data processes are calibrated to avoid placing unreasonable and duplicative burdens on providers or the agency itself that must adjudicate claims based upon such information. Third-parties submitting data should work with providers to resolve discrepancies as a first step, and the latter should at all times have an opportunity to respond. Crowdsourced data should be eligible for submission only if produced by commonly used testing applications and if tests on fixed networks are conducted via a hard-wired connection to the router, as Wi-Fi can produce variable (and skewed) results. This crowdsourced data should also serve as “heat maps” to detect *trends* in need of investigation rather than requiring provider responses to *each* data submission.

All reporting providers should be required to include latency, the offering of voice service on a granular level, and the extent to which “data caps” apply to subscribers’ use of fixed wireline and wireless or satellite broadband service. Each of these metrics get to the heart of the quality of service available (or not) to consumers that should be reflected in Commission mapping data.

The Commission should also adopt technical standards that underpin satellite providers' submissions of mapping data. Such standards – which should lead to depictions of satellite providers' ability to serve every would-be consumer within a claimed coverage area – are necessary to take depictions of satellite broadband service from the theoretical to the actual. It would be incongruous – and perpetuate the flaws of the existing Form 477 process for only one discrete technology – if the Commission were to decline adopt such standards for satellite providers in much the same way as have already been established for other technologies and allow the former to continue to define coverage by whatever means they wish.

NTCA further supports the submission by “business-only” providers of coverage polygons reflecting their service offerings. This will ensure that the Commission's mapping initiative offers policymakers a clear window into residential and anchor institutions' access to broadband.

Finally, rather than requiring the submission of coverage polygons, one by one, on the basis of FCC Registration Number (“FRN”) or Study Area Code (“SAC”), reporting providers should be able to “roll up” their coverage depictions. Specifically, providers should be able to submit every individual coverage polygon for all of the areas they (and affiliated entities) serve on a consolidated basis in one filing.

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**COMMENTS
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NTCA–THE RURAL BROADBAND ASSOCIATION**

I. INTRODUCTION

NTCA–The Rural Broadband Association (“NTCA”)¹ hereby submits these comments in response to the Third Further Notice of Proposed Rulemaking (“*Further Notice*”) issued in the above-captioned docket.² The *Further Notice* seeks comment on ways to pursue greater accuracy and consistency in mapping data submitted by providers through the Digital Opportunity Data Collection (“DODC”). NTCA offers herein several suggestions for building upon the important steps taken by the Commission in its July 2020 *Second Report and Order*, in particular proposing a challenge process that will be used to refine baseline mapping data prior to its use in significant policy or funding decisions. NTCA also proposes reporting standards for satellite broadband providers as well as additional service quality metrics and data points that

¹ NTCA represents approximately 850 rural local exchange carriers (“RLECs”). All of NTCA’s members are voice and broadband providers, and many of its members provide wireless, video, and other competitive services to their communities.

² *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 (rel. Jul. 17, 2020) (“*Second Report and Order*” or “*Further Notice*”).

every provider should report on to give policymakers the most complete view of the nature of service availability.

II. THE CHALLENGE PROCESS SHOULD SERVE AS A REFINEMENT OF MAPPING DATA PRIOR TO ITS USE IN ANY SIGNIFICANT POLICY OR FUNDING DECISIONS; THIS IS CRITICAL TO PREVENTING INACCURATE REPRESENTATIONS OF BROADBAND AVAILABILITY FROM STRANDING INDIVIDUAL CONSUMERS WITHOUT SERVICE.

A. The challenge process as a final check on the accuracy of DODC-produced maps is good public policy and consistent with the direction of Congress as found in the Broadband DATA Act.

As NTCA has long stated,³ it is important that the Commission’s mapping efforts incorporate *both* upfront, commonly-applicable reporting standards (addressed in part by the *Second Report and Order* with additional proposals made in the *Further Notice*) *and* validation (or “challenge”) procedures. Absent such a process designed to promote accuracy at the initial filing stage and then to subsequently account for any errors (as well as the passage of time), questions will persist as to whether even the most granular data can be relied upon by the Commission in making important policy and funding decisions. Of course, it should be noted that the many improvements in reporting that will flow from the Commission’s work thus far should make it such that there will be fewer and fewer instances where any individual or entity feels compelled to engage in a process to challenge data that it knows to be flawed on its face.

Consumer interest is the lodestar when it comes to mapping where broadband is and where it is not. This interest is even greater when policy or funding decisions that could direct resources to – or withhold resources from – unserved consumers turn on the accuracy of broadband maps. A “false positive” depiction of service availability could leave an unserved consumer (perhaps struggling today, or even failing, to participate in online learning or find a job

³ Comments of NTCA, WC Docket Nos. 19-195, 11-110 (fil. Sep. 23, 2019).

via the Internet) to wait even longer for something that many Americans take for granted if funding is not directed to where they live due to mistaken depictions of coverage on a map. Policy decisions that redirect support based on overstated coverage will harm consumers, as well, if support necessary to perpetuate and advance the availability of “reasonably comparable” service is withdrawn. Moreover, support directed to areas where it is not needed – wasteful “overbuilding” based on inaccurate maps – harms consumers as well, as limited resources that could have helped a consumer or a community down the road or in the next state are squandered. In each of these scenarios, it is the consumer that suffers.

Thus, NTCA urges the Commission to use the challenge process as articulated in the Broadband DATA Act⁴ and proposed in the *Further Notice*⁵ as a “final validation” process that will both minimize the errors that may appear on maps notwithstanding the improved standards for such reporting and also serve as a final refinement of mapping data prior to its use in any significant policy or funding decisions. As it moves forward with implementing this challenge process, it is important that the Commission ensure that it operates independently of the additional processes expressly articulated in the Broadband DATA Act and proposed in the *Further Notice* (i.e., the crowdsourcing and submission of “verified” mapping data by third party entities mechanism,⁶ discussed in Sections III and IV, *infra*). Specifically, the challenge process should be a “*final check*,” and therefore by its very nature separate from those other processes

⁴ 47 U.S.C. § 642(b)(5).

⁵ The *Further Notice* seeks comment on a “consumer challenge” process (in paragraphs 129-144) and a “government and other entities” challenge process (in paragraphs 145-164). While the *Further Notice* states that these processes will be conducted on the same timeline but will operate independently, NTCA proposes that these operate as one and are used prior to the use of DODC-produced maps for significant policy or funding decisions.

⁶ *Further Notice*, ¶¶ 113-116.

intended to establish more accurate baseline service coverage estimates. In other words, the crowdsourcing and third-party submission of mapping data processes are intended to supplement and refine providers' *initial* claims, while a final review is facilitated by challengers where they nonetheless still see "gaps" before the maps are used for a specific purpose.

As it looks to DODC-produced maps for policy or other funding decisions, the Commission will benefit from localized input from those closest to the "facts on the ground" to refine them via this challenge process. Consumers, state and local policymakers, and other providers in the area (the latter as "other entities" expressly envisioned by the Broadband DATA Act⁷), will all play critical roles in refining baseline maps prior to their use for discrete policy or funding purposes. All of these stakeholders – other providers in a given area, individuals, and state, local, and tribal governments – often have a good awareness of where service actually does exist and where gaps persist. Moreover, even as the reporting standards already adopted by the Commission should produce increased accuracy "on the front-end," mapping data will still reflect *static* conditions as of the time such data is submitted. The final challenge validation process proposed here will therefore be useful in ensuring that the most *current* information is being used to guide decision-making. In addition, the data submitted via the "crowdsourcing" process (discussed in Section IV, *infra*) may not reflect the entirety of geographic areas at issue where the Commission proposes to direct resources. For example, entities submitting crowdsourced data may only flag discrete gaps in coverage in one portion of a large rural county and overlook overstated coverage claims elsewhere. Again, a back-end challenge validation

⁷ 47 U.S.C. § 642(b)(5)(A) (stating that the Commission should "establish a user-friendly challenge process through which consumers, State, local, and Tribal governmental entities, and other entities or individuals may submit coverage data to the Commission to challenge the accuracy of" DODC-produced maps).

process is needed as a final check to account for these potential gaps not remedied by other mechanisms.

It is critical to note here that the challenge process contemplated by the statute should be robust and data-driven – but it need not be burdensome, and it should be invoked far less frequently than challenge processes in the past. This is due, in large part, to the important steps the Commission has already taken in this proceeding. Specifically, the reporting standards adopted in the *Second Report and Order* should produce far more accurate data in the first instance than current Form 477 rules that essentially allow providers to self-define “availability.” Moreover, as the parties using crowdsourcing and submission of “verified” data processes refine maps following initial submission, they should improve even further as these processes flag and correct “gaps” and ultimately “keep providers honest.” Thus, the number of disputes that arise and must be resolved via the final challenge process necessary to “fine-tune” maps before they are used for specific policy and funding decisions should be fewer and further between than was the experience in the past when working from maps based upon Form 477. They will also encompass much smaller geographic areas than before, such that any disputes and disagreements regarding coverage should be much narrower and focused.

The use of the challenge process as a final check on maps prior to their use in funding and policy decisions is expressly contemplated by the Broadband DATA Act. Section 642(b)(5)(B)(i)(iv) expressly directs the Commission to consider “the costs to consumers and providers resulting from a misallocation of funds because of a reliance on outdated or otherwise inaccurate information in the coverage maps.”⁸ This reference represents a clear understanding that a final “sanity check” in the form of a challenge process would be necessary and useful to

⁸ 47 U.S.C. § 642(b)(5)(B)(i)(iv).

direct funds distributed based on the maps to where they are truly needed. By contrast, as the Commission itself notes in the *Second Report and Order*, the Broadband DATA Act indicates that the crowdsourcing process is one “through which entities or individuals . . . may submit specific information about the deployment and availability of broadband Internet access service . . . on an *ongoing basis* so that the information may be used to verify and supplement information submitted by providers . . . for inclusion in the [broadband coverage] maps.”⁹ Challenges should therefore be used as a process distinct from ongoing crowdsourcing and verified data submissions to validate maps before they are used in any final decisions that would affect policy or funding determinations.

B. The challenge process should place the burden of proof on the “challenged” party to respond to an initial showing made by the challenger calling into question mapping data.

With respect to the mechanics of this challenge process as Commission decisions are made either to award or withdraw funding from a given area, parties wishing to challenge the accuracy of coverage maps should submit information such as consumer surveys, “secret shopper” tests, or other preliminary indicators that the challenged provider does *not* in fact operate throughout the area that it claims at the levels of performance it claims. This process should be one that asks more of a “challenger” as compared to the “crowdsourcing” mechanism – a challenger should be required to come forward with something more than a mere “speed test” disputing the map’s depiction of service at their location. The challenge process should instead be one that requires a challenger to make an initial showing with some level of greater detail and evidence that service claims throughout the geography at issue are overstated.

⁹ *Third Report and Order*, ¶ 62, citing 47 U.S.C. §§ 642(a)(1)(B)(iv), 644(b)(1) (emphasis added).

It is at this point that the burden should then shift to the “challenged” party to rebut the challenge and make an affirmative showing of actual coverage within 60 days. The challenged provider is inarguably the entity that possesses the most accurate information as to its service offerings and availability. That party is also the entity that can review its own internal mapping procedures, compare them to the reporting standards that guided the initial submission of data, assess billing records and engineering documentation showing the presence and capabilities of network facilities sufficient to provide service at the speed claimed consistent those standards, and prepare a response. That response should include documentation with technical and operational information that provides clear and convincing evidence of actual service availability. Moreover, challenged parties should also be required to certify their ability to connect every would-be subscriber within a coverage polygon within 10 business days and without the need for special construction charges.

In addition, while the *Further Notice* seeks comment on the challenge process in a manner that seemingly suggests a “bifurcated” process, or a separate process, for “consumer challenges,”¹⁰ such an approach is both contrary to the Broadband DATA Act’s clear language and unnecessary as well. Section 642(b)(5)(A) states that the Commission should establish “a user-friendly challenge process through which consumers, State, local, and Tribal governmental entities, and other entities or individuals may submit coverage data to the Commission to challenge the accuracy of”¹¹ coverage maps. Nothing in the plain language of this statutory provision indicates independent processes. Instead, Section 642(b)(5)(A) can only be read as directing the Commission to ensure that *the* “challenge” process is open to a variety of

¹⁰ *Further Notice*, ¶¶ 129-144.

¹¹ 47 U.S.C § 642(b)(5)(A).

participants, each of which would be able to dispute mapping data based on their own unique perspectives. Not only does a separate challenge process for consumers run counter to the Broadband DATA Act, it would be unnecessary – the crowdsourcing process exists as a vehicle for consumers to offer speed test data, for example, pushing back on availability claims and to do so on an “ongoing basis.” A *fourth* process that would operate independently of a challenge process for “government and other entities” as well the submission of third-party mapping data and crowdsourcing is sure to overwhelm all stakeholders and yield little incremental value. To the extent the Commission believes that “the issues raised in individual consumer challenges may differ from those raised by entities,”¹² or that a lesser burden of proof (for example simply the provision of speed testing results) to trigger a response to a dispute is necessary, the Commission has already “solved” for that with the crowdsourcing process. It need not create a fourth process that contradicts the structure articulated in the Broadband DATA Act.

III. THE THIRD-PARTY SUBMISSION OF MAPPING DATA PROCESS MUST BE PROPERLY CALIBRATED TO ENSURE THAT THE MOST USEFUL DATA IS ELICITED WHILE MINIMIZING THE BURDEN ON PROVIDERS AS WELL AS THE COMMISSION.

Pursuant to the Broadband DATA Act, the Commission proposes to accept and incorporate into the DODC “verified” mapping data submitted by third-parties.¹³ While NTCA supports this process as a third method beside the challenge and crowdsourcing processes to refine providers’ coverage claims, it is critical that the combination of these three processes – a challenge process, crowdsourcing, and the submission of verified data – avoid placing

¹² *Further Notice*, ¶ 129.

¹³ *Id.*, ¶¶ 113-116. *See also* 47 U.S.C. § 642(a)(2).

unreasonable and duplicative burdens on providers or the Commission itself as it must adjudicate claims based upon such information. Specifically:

- As proposed by the *Further Notice*, this verified mapping data should only be accepted from an entity that “is able to demonstrate that it has employed a sound and reliable methodology in collecting, organizing, and verifying coverage”¹⁴ (a “qualified entity”) and if “the Commission in its discretion determines that the data would make the coverage maps (or the data underlying the coverage maps) more accurate”¹⁵
- Again, as proposed by the *Further Notice* “the third party *specializes* in gathering and/or analyzing broadband availability data”¹⁶ and
- The format and type of data submitted are compatible and comparable with the provider’s data.

If mapping data within these guardrails is offered for submission by a “qualified entity,” the Commission should, as also proposed by the *Further Notice*,¹⁷ require submitting entities to work with the service provider at issue as a first step to resolve any inconsistencies between the two parties’ mapping data. It is here that the requirement for the third-party to compile data in a format compatible and comparable with the provider’s will come into play, as it will allow both parties to efficiently make “apples to apples” comparisons of data and quickly resolve any discrepancies.

It is also critical that providers have an opportunity to offer a rebuttal to such data should the parties not agree on a resolution. While the *Further Notice* proposes that in such an event

¹⁴ *Further Notice*, ¶ 116.

¹⁵ *Id.*

¹⁶ *Id.* (emphasis added).

¹⁷ *Id.*, ¶ 114 (“We propose requiring third party and governmental entities to attempt to resolve any inconsistent data with the providers.”).

data be withheld from the coverage maps, it also proposes to make the disputed data publicly available.¹⁸ In the interest of both fairness and transparency, providers should be able to offer a response should they so choose and their reasons for disputing the accuracy of such data should be made public as well.

IV. THE SUBMISSIONS MADE THROUGH THE CROWDSOURCING PROCESS SHOULD FUNCTION AS “HEAT MAPS” THAT ENABLE THE COMMISSION TO INVESTIGATE TRENDS THIS DATA REVEALS WITH RESPECT TO INACCURATE MAPPING.

With respect to the crowdsourcing process as established by the *Second Report and Order*, the Commission should adopt guardrails around this process. These are necessary to ensure that such data submissions do not bog the Commission or providers down with chasing the source of countless disputes based upon speed tests that may reflect internal network configuration issues or device limitations more than they do network capability.

For one, to the extent that crowdsourced data is gathered via testing applications, it should be eligible for submission only if produced via certain Commission-approved testing applications. The Commission’s Office of Engineering and Technology should, working with providers, list on the Commission’s website the testing applications from which results measuring speed and latency will be accepted. This will ensure that all parties involved in resolving this data (those submitting it, as well as the Commission and providers) are “working off the same page” by using commonly-used testing applications. Neither the Commission nor providers should be forced to “test the test” to ensure that applications used to gather and submit crowdsourced data even function as intended or accurately measure broadband speed or latency.

¹⁸ *Id.* (“If the third party or governmental data cannot be reconciled with the provider after a period of 60 days, then the data would be made publicly available and its status noted, but the data would not be included as part of the official coverage maps.”)

Similarly, those entities submitting crowdsourcing data should certify and provide evidence that any such test was produced via a “hard-wired” connection to a modem, and they should indicate as well the device upon which the test was performed. WiFi connections can produce variable results – and the Commission and providers should not be forced to chase down whether crowdsourced data disputing a provider’s speed data as found on a map is the result of the testing application run over a legacy router connecting to a vintage device.

Perhaps more importantly, any submissions gathered by the crowdsourcing mechanism should serve only as a “heat map” – a method to detect trends and initiate a process to investigate and ultimately request that the provider correct any inaccurate data. Requiring providers to respond to each and every crowdsourced data submission would quickly spiral out of control, diverting resources that could be better spent on actually improving the accuracy of mapping data. The Commission, as well, could quickly become bogged down adjudicating countless individual data submissions. Moreover, the upfront reporting standards as well the third-party submission of mapping data process should, again, serve as checks on initial coverage claims, with the final “back-end” challenge process further refining data before it is relied upon for policy or funding decisions. Ultimately, these processes, if carefully calibrated, will find the appropriate balance between being strong validation mechanisms and flooding the Commission with information that it may not be able to use to improve its mapping data.

V. THE COMMISSION SHOULD REQUIRE ALL FIXED BROADBAND PROVIDERS TO REPORT ON THE LATENCY ASSOCIATED WITH THEIR SERVICE, THEIR ABILITY TO OFFER VOICE SERVICE AND THE EXTENT TO WHICH “DATA CAPS” APPLY TO THEIR SUBSCRIBERS; FIXED PROVIDERS’ FILINGS SHOULD ALSO BE ACCOMPANIED BY AN ENGINEER’S CERTIFICATION.

The *Further Notice* seeks comment on whether and how the Commission should collect latency information for fixed broadband service.¹⁹ NTCA supports the inclusion of not only latency, but the offering of voice service on a granular level as well as the extent to which “data caps” apply to subscribers’ use of fixed wireline and wireless or satellite broadband service. Each of these metrics get to the heart of the quality of service available (or not) to consumers that should be reflected on any DODC-produced maps.

As an initial matter, latency is a strong indicator of what consumers and businesses can do with a broadband connection. A consumer’s ultimate experience with many important applications is highly influenced by latency – the ability to watch a live sporting event via a streaming application and the ability to use over-the-top applications such as Voice over Internet Protocol voice service or other interactive applications can all be affected by latency. Even more important, real-time, interactive applications such as telemedicine and distance learning applications are highly dependent on lower latency broadband connections. The significance of latency has been driven home by the current COVID-19 pandemic that has shuttered schools and moved education at all levels to virtual learning and driven Americans all across the country to use telemedicine services as much as possible to avoid unnecessary trips outside the home. Moreover, if it is important enough for the Commission to include latency as a metric in performance testing on networks supported by the universal service programs, it should be

¹⁹ *Id.*, ¶¶ 92-93.

deemed important enough to warrant reporting by all providers in discerning whether those networks are delivering performance at levels needed by consumers.

The availability of voice service is important as well. Nothing gets more directly to the core of the Commission's communications policies and its responsibilities to consumers than ensuring that consumers have the ability to reach emergency services at all times – and indeed the Commission, at the direction of Congress, has taken that responsibility seriously via rules to implement the indoor location accuracy provisions of the Ray Baum Act²⁰ as well as wireless E911.²¹ Funding decisions, whether state or federal, may – indeed should – consider the public safety implications of a particular area not having access to both reliable voice in order to reach public safety in a time of need. That important data point must, like latency, be incorporated into maps that will drive policy and funding decisions.

In addition, all providers of any kind using any technology should be required to report the extent to which data caps apply to their subscribers. Data caps, like latency, are an important factor in what a consumer can actually do with their broadband connection – a consumer attempting to attend school virtually or visit their doctor online but butting up against a data cap (and the attendant throttling that may come with it) likely does not perceive such a connection to have as much value. Importantly, the Commission should not either, and to the extent that mapping data will be used to make policy or funding decisions, mapping initiatives should allow for a window into this important data point.

²⁰ *Implementing Kari's Law and Section 506 of RAY BAUM'S Act*, PS Docket No. 18-261, Report and Order, FCC 19-76 (rel. Aug. 2, 2019).

²¹ *Wireless E911 Location Accuracy Requirements*, PS Docket No. 07-114, Second Report and Order and Order on Reconsideration, FCC 20-98 (rel. Jul. 17, 2020).

Finally, NTCA further supports a requirement that all fixed providers include an engineer’s certification attesting to the accuracy of mapping data submitted for the DODC. This step would improve the accuracy of the DODC, as coverage claims must be made, pursuant to the *Second Report and Order*, based on detailed technical specifications that get at the heart of what a reporting entity’s network can achieve. The Commission should, of course, take steps to prevent this requirement from being unworkable or unreasonable – providers need not employ an “in-house” engineer specifically for this purpose, but rather must have one already in their employ or a consulting engineer retained by the provider to review mapping submissions and compare them to the underlying reporting standards upon which they must be based pursuant to Commission rules, to complete the certification. Moreover, limiting this requirement to the biannual mapping filings should minimize the burden as well. That said, an additional level of independent validation of this sort could be valuable and highly useful in ensuring that the standards that the Commission has gone to such great lengths to put into place are faithfully satisfied in each provider’s report.

VI. THE COMMISSION SHOULD ADOPT REPORTING STANDARDS FOR SATELLITE PROVIDERS THAT REFLECT IN FULL THEIR NETWORK CAPABILITIES.

In much the same way as it has with respect to fixed, terrestrial providers, the Commission should adopt technical standards that underpin satellite providers’ submissions of mapping data. Such standards – that should lead to depictions of satellite providers’ ability to serve every would-be consumer within a claimed coverage area – are necessary to take depictions of satellite broadband service from the theoretical to the actual.

The *Further Notice* makes the case quite well for the need for such standards, stating that “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.”²² While perhaps *theoretically* possible (and perhaps assuming adoption by only a small percentage of consumers), better quality data is required to determine what is in fact available to consumers. As will now be the case in the context of terrestrial services based upon the standards the Commission has already adopted, a claim that an area is “served” by satellite broadband should not be made unless the provider can assume adoption at each individual serviceable location in that area and can indeed deliver on that claim.

NTCA therefore proposes that satellite providers’ broadband service availability reporting incorporate, as proposed by the *Further Notice*²³ and for each individual coverage polygon submitted, both (1) the number and location of satellite beams; and (2) the capacity used to provide service by an individual satellite to consumers at various speeds. Most importantly, those metrics must be tied to standard assumptions, such as a specific number and location of satellite beams any provider using such technology must have in place and directed to a particular coverage area to claim coverage for every would-be subscriber in that area at the speed claimed. A similar, standard assumption should apply to the capacity of individual satellites used to provide service within each coverage polygon.

By contrast, the Commission should reject the argument that “satellite broadband providers are no different from other types of network providers who are not required to report on network capacity for this purpose”²⁴ or that the DODC should not include “special reporting

²² *Id.*, fn. 274.

²³ *Id.*, ¶ 94.

²⁴ *Id.*, fn. 276, citing Comments of Hughes Satellite Systems, LLC, WC Dockets 19-195, 11-10 (fil. Sept. 23, 2019).

requirements by satellite providers but not other technologies.”²⁵ To the contrary, the Commission has already, in the *Second Report and Order*, set forth “special reporting requirements” that are, at their core, individual technical standards that reflect the ability of various technologies. It would be incongruous – and perpetuate the flaws of the existing Form 477 process for only one discrete technology – if the Commission were *not* to take similar steps as to satellite providers as well, and to leave them instead to define coverage by whatever means each such provider wishes.

VII. THE COMMISSION SHOULD REQUIRE REPORTING BY “BUSINESS-ONLY” PROVIDERS, AS WELL AS THE SUBMISSION OF DATA DEPICTING SERVICE TO ANCHOR INSTITUTIONS, AS THIS WOULD PROVIDE A MORE COMPLETE PICTURE OF AVAILABILITY AND FACILITATE THE PROPER COORDINATION OF STATE AND FEDERAL FUNDING PROGRAMS.

The *Further Notice* seeks comment on whether “business-only” broadband coverage polygons should be submitted as distinct from residential offerings.²⁶ Comment is sought as well on whether this distinction in reporting would inform and advance the goals of the Universal Service Fund Schools and Libraries and Rural Health-Care programs.²⁷ NTCA supports the proposal for “business-only” providers’ submission of coverage polygons reflecting their service offerings, to ensure that the DODC offers policymakers a clear window into residential as well as anchor institutions’ access to broadband.

While the *Further Notice* inquires as to whether it should require reporting based on a “distinction between ‘residential-only’ and ‘business-and-residential’ services by fixed

²⁵ *Id.*

²⁶ *Id.*, ¶90.

²⁷ *Id.*

providers,”²⁸ this latter “comingled” data set could result in “false positives” indicating that residential service is available in given areas when it in fact is not. A comingled coverage polygon indicating that “all locations” within it are served, despite the fact that the provider only serves the non-residential subscribers in the given area, would depict service available to households that are in fact not served. Funding decisions made on such inaccurate depictions of broadband availability would harm consumers and defeat the purpose of developing more accurate maps.

In addition, “business-only” providers’ submission of coverage polygons reflecting their service offerings could also provide the Commission with much-needed mapping data on the availability of service to anchor institutions. Specifically, the Commission should require the collection of mapping data from business-only service providers to incorporate service to schools, libraries, health-care and government entities to the extent they serve such anchor institutions. The *Further Notice* correctly notes that the Broadband DATA Act “focuses on restricting subsidies to unserved areas and avoiding wasteful,”²⁹ and NTCA believes that the availability of business-only deployment data would be critical for proper targeting of E-Rate or Rural Health Care funding and thus would advance the goals set forth in the statute.³⁰ The data collected via the DODC should be leveraged to the fullest extent possible, and mapping data should give the Commission (and any other agency that will inevitably look to these maps), the tools necessary for the proper “targeting” of limited state or federal funding resources. Moreover, the coordination of state and federal funding programs is critical to avoiding the

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.*

prospect of funding duplicative broadband networks in rural areas and thereby ensure an effective and efficient use of limited taxpayer and ratepayer resources. Thus, it would be a wasted opportunity to say the least were the Commission not to seek access to this valuable data that provides a more complete and comprehensive depiction of broadband coverage for every kind of user.

VIII. THE COMMISSION SHOULD AMEND ITS 477 REPORTING RULES TO ENABLE PROVIDERS TO FILE MAPPING DATA THAT ENCOMPASSES DATA FOR ALL PARENT/AFFILIATED ENTITIES ON A CONSOLIDATED BASIS.

The *Further Notice* seeks comment on proposed reforms to its Form 477 rules, beyond those that would sunset census-block level reporting.³¹ NTCA urges the Commission to amend its current Form 477 rules – and carry these reforms over to the DODC and any shapefile reporting as well as data submissions made to the forthcoming “location fabric” – and enable consolidated parent company/affiliated data submissions.

NTCA members, serving their rural communities via both wireline and wireless technologies, often operate one or more affiliated entities. This is typically the case for those entities that have edged out into neighboring rural communities to offer competitive services – they do so through an affiliated entity. Similarly, those entities that have acquired other providers/exchanges over the years often operate them as affiliates. Rather than requiring the submission of coverage polygons, one by one, on the basis of FCC Registration Number (“FRN”) or Study Area Code (“SAC”), reporting providers should be able to “roll up” their coverage depictions. Specifically, carriers should be able to submit every individual coverage polygon for all of the areas they (and affiliated entities) serve on a consolidated basis in one

³¹ *Id.*, ¶¶ 188-191.

filing. Moreover, to the extent a coverage polygon depicting coverage over a particular area includes service made available by a combination of affiliated entities, DODC mapping data submissions should be made in that manner. Requiring such data to be reported on a FRN/SAC level would yield nothing valuable for the Commission or other policymakers but would substantially (and unnecessarily) increase the burden on small entities.

IX. CONCLUSION

For all of the reasons discussed above, the Commission should adopt a robust challenge process that all parties as identified by the Broadband DATA Act can use to help refine mapping data prior to its use in significant policy or funding decisions. The Commission should also take steps to properly calibrate other verification processes to ensure they are not overly burdensome for providers or agency staff and elicit useful data. In addition, reporting standards for satellite providers should be adopted that reflect their true capabilities, and additional metrics such as latency, the ability to offer voice and the presence of data caps should be reported on by all providers.

Respectfully submitted,



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