

**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 ACT | THE APP ASSOCIATION

ACT | The App Association (App Association) respectfully submits the following comments to the Federal Communications Commission (FCC or Commission) regarding the above-captioned proceeding.¹ On the whole, the Commission has made great strides in updating its Form 477 in its new Order, and the App Association believes that such measures are necessary to increase the precision and granularity of its data related to broadband deployment. We see the FCC's *2019 Broadband Mapping R&O and 2nd FNPRM* as a positive first step in that regard. However, as the Commission has acknowledged, there are still areas where the FCC could seek significant improvements in its data-collection program.

¹ *In the Matter of Establishing the Digital Opportunity Data Collection, et al.*, Report & Order and Second Further Notice of Proposed Rulemaking, WC Docket No. 19-195, et al. (2019). Available at <https://docs.fcc.gov/public/attachments/DOC-358433A1.pdf>. (*2019 Broadband Mapper R&O and 2nd FNPRM*).

The App Association represents approximately 5,000 small business software application development companies and technology firms that drive the internet of things (IoT) market. Today, the ecosystem the App Association represents is valued at approximately \$1.3 trillion and is responsible for 5.7 million American jobs.² Alongside the world's rapid embrace of mobile technology, our members create innovative solutions that power IoT across modalities and segments of the economy.

The App Association continues to support the Commission's efforts to bring better broadband to Americans.³ Better broadband maps will be vital when determining a new customer base or what new markets our members can enter. In many cases, our members are based and/or serve customers in rural areas that lack the connectivity needed to support new and innovative internet products and services. It is, therefore, critical to have more accurate and granular maps that can correctly identify unconnected or under-connected areas to help the Commission appropriately target its Universal Service support by deploying broadband infrastructure to the areas where the app economy and its beneficiaries need it the most. This proceeding further demonstrates the Commission's continued commitment to bridging the digital divide, but more needs to be done as described below.

² *Online Platforms and Market Power, Part 2: Innovation and Entrepreneurship: Hearing Before the H. Subcomm. On Antitrust, Commercial and Administrative Law, 116th Cong. 2 (2019)* (statement of Morgan Reed, President, ACT | The App Association). Available at <https://actonline.org/wp-content/uploads/Online-Platforms-and-Market-Power-Part-2-Innovation-and-Entrepreneurship-1.pdf>.

³ *E.g.*, ACT Comments, GN 17-258; *see*. ACT Letter, WTB 17-79; and *see*, ACT Comment, WTB 17-79, et al..

I. THE COMMISSION NEEDS TO CLARIFY KEY TERMS TO ENSURE THE ACCURACY OF ITS MAPS

As the FCC is aware, consumers are leveraging numerous communications technologies to access broadband. For example, over 90 percent of the FCC’s Lifeline program is wireless service-based, and the demand for wireless broadband is only going to increase.⁴ The Commission should, therefore, develop a cost-effective reporting standard that both provides accurate information and appropriately accounts for different communication technologies consumers leverage to access broadband (e.g., fixed wireless, wireline via fiber-optic cables, etc.). Without such clarifications as described below, it is unclear as to how the Commission will capture and evaluate the validity of some of the submitted data and compare “apples to apples.” This is especially true for both the Commission’s crowdsourcing tool and its broadband-serviceable location tool.

A. The Commission Needs to Provide Appropriate Contours for Its Crowdsourcing Tool

In the Order correlated with this proceeding, the Commission proposes a crowdsourcing tool to help verify information internet service providers (ISPs) provide to the Commission to improve the accuracy of their submissions.⁵ According to the Order, the Commission “directs [the Universal Service Administrative Company (USAC)] to begin collecting information from state governments, including state public utility commissions, and local and Tribal governmental entities, *as well as members of the public* about the accuracy of the coverage polygons gathered from fixed providers and to make certain data publicly available.”⁶ The App Association

⁴ Comments of the Nat’l Lifeline Ass’n, WC Docket No. 17-287 et al, 9 (filed Feb. 21, 2018).

⁵ See *2019 Broadband Mapper R&O and 2nd FNPRM* at para. 24 (writing “[t]he use of crowdsourcing to verify the polygon coverage areas submitted by fixed providers will further improve the validity of broadband deployment data.”).

⁶ See *id.* at para. 87 (emphasis added).

appreciates the Commission’s proposal to accept data from the public, but clearer guidance as to what the Commission will accept as valid data should accompany the crowdsourcing tool.

Crowdsourcing allows the Commission to use invaluable resources, such as machine learning or other visualization tools, to check the accuracy of its data.⁷ As some stakeholders point out, there are ways to incorporate a crowdsourcing tool that could yield meaningful supplements to the data ISPs provide so long as the Commission has a proper vetting procedure.⁸ However, without well-defined parameters, it will be difficult for the Commission to discern the validity of the claims a respondent made in their submission or even how the Commission can use such information, like a consumer’s complaint or response, into usable data for the Commission’s articulated purpose in this proceeding.

The App Association supports the Commission moving forward with its proposed crowdsourcing tool but asks that the Commission take appropriate steps to ensure data submitted through its crowdsourcing tool is accurate and usable.

B. The Commission Should Improve its Definition of a “Serviceable Area” for Its Broadband-Serviceable Location Tool

To improve its polygon-based maps, the Commission is right to seek clarity on its definition of a “serviceable area.”⁹ When carriers report data via Form 477—even with recent revisions—it remains unclear when ISPs serve urban structures, like multi-tenant entities

⁷ See Microsoft, Inc., WC Docket No. 19-195, et al., Ex Parte (Jul. 25, 2019) (suggesting that the Commission could use “Microsoft’s usage data, along with some machine learning and visualization tools, can help the Commission identify outliers and improve the accuracy of its broadband reports, and it renewed its willingness to continue to make those data sets available to the Commission.”).

⁸ See NCTA, WC Docket No. 19-126, et al., Ex Parte (Jul. 23, 2019) (writing that “NTCA encouraged the Commission to make clear that, in analogizing to a consumer complaint database, it is not proposing to treat crowdsourced reports precisely the same as general consumer complaints, necessitating a response to each and every report filed.”).

⁹ 2019 Broadband Mapper R&O and 2nd FNPRM, at paras. 97-99.

(MTEs), or rural structures, like farms. The “serviceable area” definition does not clarify whether tenants in an urban setting merely need access to internet services or if they must be broadband subscribers for a carrier to claim that it serves an MTE. In measuring coverage in rural areas, it is unclear what aspects of a property are covered. This information is also helpful to the private sector for business planning purposes. For example, a company providing software-based solutions in the precision agriculture market benefits from knowing which portions of a property have adequate broadband access and which do not, as some structures can be as far as several miles away from each other. The Commission must define this term before it moves forward with this proceeding.

The App Association believes that more granular data would ameliorate this problem. We suggest that the FCC require ISPs to file visual representations of actual services areas, such as shapefiles or rasters, to better represent a consumers’ experience with their connectivity.

II. THE COMMISSION SHOULD DEVELOP A COST-EFFECTIVE WAY TO INDICATE LATENCY

Our members will need latency data when deciding where to find new customers and encourage more investment into their products, especially for those servicing rural communities. Latency data will play a key role for our members, because latency data will help to determine both a total available market (TAM)¹⁰ and a serviceable available market (SAM)¹¹ to their investors. Both TAM and SAM are critical for our members to evaluate and seek investors; this is particularly true in the precision agriculture and connected health IoT space. Latency data will

¹⁰ TAM is the potential revenue for a product or service, based on a myriad of metrics (e.g., number of consumers and competitors, infrastructure, etc.). Jared Sleeper, *How to Calculate Your Total Addressable Market and Make a Great TAM Slide for Investors*, For Entrepreneurs (last visited Sep. 23, 2019). Available here at <https://www.forentrepreneurs.com/calculating-tam/>.

¹¹ From a TAM assessment, our members can provide their investors with a SAM that indicates a finely targeted geographic market that their product or service intends to serve. The Business Plan, Blog (last visited Sep. 23, 2019). Available at https://www.thebusinessplanshop.com/blog/en/entry/tam_sam_som.

be essential to determine what available resources exist, especially when that resource is broadband.

Latency is a key factor in determining both TAM and SAM for our members writing code for precision agriculture or connected care as both services require very low latency to be functional. As a result, even if our members can present their investors with a virtually untapped market with few or even no competitors, a TAM with inadequate or even nonexistent latency data for those services would hamper or even kill any opportunity for an investor to fund our member's business. The problem with the FCC's current regime is that there exists no FCC data indicating latency; our members are, in effect, blindly entering into rural markets, which is bad for investment purposes. Instead, our members should be able to leverage FCC data that includes latency to provide their investors with a holistic TAM, and by extension SAM, to assure their investors that our members' innovative products will be profitable.

The App Association recognizes there are issues related to incorporating latency data into the Commission's broadband measurements and maps. We are aware that the Commission has corresponding proceedings to resolve those issues.¹² However, we urge the Commission to leverage those proceedings, once all have been concluded, to find a cost-effective solution to incorporate latency data into its maps. At any rate, we are encouraged to see that the Commission is looking into this issue and hope it can reasonably implement it soon.

¹² See *Communications Marketplace Report*, Report, GN Docket No. 18-231, et al., 33 FCC rcd 12558 at 12579, para. 25, n.86 (2018).; *Connect America Fund Phase II Auction Scheduled for July 24, 2018*, Notice and Filing Requirements and Other Procedures for Auction 903, AU Docket No. 17-182, WC Docket No. 10-90, Public Notice 33 FCC Rcd 1428 (2018).

III. THE COMMISSION SHOULD LEVERAGE PROPRIETARY INFORMATION AS WELL AS OPEN SOURCE MATERIALS WHEN DEVELOPING ITS MAPS

The Commission's 2nd FNPRM also presents the question of whether proprietary and/or open source data should be used to develop the Commission's maps.¹³ The App Association's experience is that both have varying advantages, and we recommend that the Commission utilize proprietary data to provide a cost-efficient and effective complement to open-source data so as to collect information regarding broadband services.¹⁴ Additionally, a recent study found that using proprietary data could yield significant cost reductions for the Commission and increase its maps' accuracy.¹⁵ The App Association believes that the Commission should use such data along with any and all legitimate information, whether proprietary or not, to ensure its maps' accuracy.

IV. THE FCC SHOULD CONTINUE TO OBSERVE THE DEVELOPMENTS STAKEHOLDERS HAVE CHAMPIONED TO COLLECT BROADBAND DATA

The App Association recognizes that stakeholders have proposed several alternatives to the Commission's census-block reporting regime.¹⁶ Currently, USTelecom has set up an initiative to address some of the lapses in broadband data by conducting a two-state mapping pilot program.¹⁷ The group developed a mapping fabric that serves as a baseline to some of the polygon capabilities the Commission seeks comment on in this 2nd FNPRM.¹⁸ A concerning result of USTelecom's pilots is that it found an estimated 38 percent of unserved additional rural

¹³ *2019 Broadband Mapper R&O and 2nd FNPRM*, at para. 84, fn. 219.

¹⁴ CQU, *Broadband Mapping Initiative: Proof of Concept*, Presentation, Slide 13 (Aug. 2019). Available at <https://ecfsapi.fcc.gov/file/1082010869365/UST%20BSLF%20PoC%20Findings%20-%20August%202019.pdf>.

¹⁵ *See id.*

¹⁶ <https://www.ustelecom.org/broadband-mapping-initiative-action-center/>.

¹⁷ Letter from B. Lynn Follansbee, VP – Policy & Advocacy, USTelecom to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 19-195, 11-10, 10-90, 19-126 and accompanying “Broadband Mapping Initiative Proof of Concept Summary of Findings Report” (Aug. 20, 2019) (USTelecom Letter).

¹⁸ *See* USTelecom Letter.

census block locations that the Commission previously reported as served.¹⁹ That finding underscores the importance and even necessity of the Commission's proceeding here. Other efforts, like Connected Nation, have also made great strides in enhancing the Commission's maps.²⁰

The Commission should consult such efforts and learn from their successes and failures to better inform their data-collection framework.

V. IN ITS ORDER, THE COMMISSION SHOULD INDICATE ANY LACK OF STATUTORY AUTHORITY TO GUIDE CONGRESSIONAL ACTIONS IN THIS REGARD

Currently, there are legislative developments to address the issues related to broadband mapping. For example, the Senate's recent introduction of the Broadband Deployment Accuracy and Technological Availability (DATA) Act demonstrates a clear bipartisan approach to finding solutions to this issue.²¹ The DATA Act includes a requirement for the FCC to contract out data collection to a third party, a challenge process, a requirement for more accurate data collection including shapefiles, and a reform of the Form 477 data collection process. The Commission should continue to work with Congress where it does not have the appropriate authority to advance any of the shared goals of Congress, the Commission, and stakeholders, like the App Association, in this proceeding.

¹⁹ USTelecom, WC Docket No. 19-195, Ex Parte (Aug. 29, 2019).

²⁰ https://connectednation.org/mapping_analysis/.

²¹ S.B. 1822.

CONCLUSION

For the reasons above, the App Association urges the Commission to consider our views and data provided herein.

Sincerely,

/s/ Joel Thayer

Joel Thayer
Policy Counsel

ACT | The App Association
1401 K St NW (Ste 501)
Washington, DC 20005

September 23, 2019