

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 THE STATE OF COLORADO

September 23, 2019

Table of Contents

Cover Letter	Pg. 3
INTRODUCTION	Pg. 4
DISCUSSION	Pg. 5
I. Collecting More Granular Data	Pg. 5
II. Improving Broadband Data Quality	Pg. 7
III. Incorporating Location Information	Pg. 9
CONCLUSION	Pg. 9



COLORADO
Governor Jared Polis

September 20, 2019

Ajit Pai, Chairman
Federal Communications Commission
445 12th Street,
SW Washington, DC 20554

Chairman Pai,

We applaud the FCC for recognizing that the current requirement for census block level fixed broadband service availability reporting does not go far enough, making it challenging for the FCC to direct funding to those areas where some, but not all, homes and businesses have access to 25/3 Mbps broadband service. In addition, we support the FCC's desire to require all broadband service providers to submit more granular data of the areas where they have broadband service available.

The state agrees with limiting the new data collection obligations to fixed wired and fixed wireless broadband providers while seeking comment on how best to incorporate mobile wireless coverage data into the Digital Opportunity Data Collection. We also agree with the FCC's proposal to adopt a process to begin collecting public input "crowdsourcing," in order to validate the accuracy of service providers' reported broadband deployment data.

Specifically, Colorado recommends the FCC direct fixed wired providers to report address points rather than coverage polygons. The volume of data this will require of providers may be a challenge, but prescribing the creation of coverage polygons could be more burdensome and could continue to significantly overstate broadband availability. However, for fixed wireless we recommend using propagation models rather than address points because propagation models offer the best accuracy while reducing the burden of address-level reporting.

We are acutely aware of the rural broadband gap that exists in Colorado's communities, and we have substantial experience in utilizing quality data in order to direct state resources to close that gap. We recommend that the FCC make public the granular data collected as a result of this proceeding, in a timely fashion, so that local, state, and federal policymakers can make informed decisions before allocating broadband funding.

In summary, Colorado recommends that the FCC adopt a broadband reporting mechanism that requires more granular data, utilizes crowdsourcing for validation, and makes the data publicly available for informed decisions.

Sincerely,



Jared Polis
Governor



COMMENTS OF THE STATE OF COLORADO

September 23, 2019

INTRODUCTION

The State of Colorado (“Colorado”) appreciates the opportunity to submit comments on the Federal Communications Commission’s (FCC) Report and Order and Second Further Notice of Proposed Rulemaking (Second FNPRM), Digital Opportunity Data Collection (DODC) WC Docket Nos. 19-195 and 11-10, adopted August 1, 2019 and published in the Federal Register on August 22, 2019 (“Notice”). These comments are a result of a collaborative effort of the Governor’s Office, the Colorado Broadband Office and the Geographic Information System (GIS) Coordination & Development Program within Office of Information Technology (OIT), and Department of Regulatory Affairs (DORA) - Broadband Fund.

We applaud the FCC for recognizing that the current requirement for census block level fixed broadband service availability reporting does not go far enough, making it “difficult for the Commission to direct funding to the ‘gaps’ in broadband coverage—those areas where some, but not all, homes and businesses have access to modern communications services.”¹ We support the FCC’s desire to “require all broadband service providers to submit granular maps of the areas where they have broadband-capable networks and make service available.”² As the Notice correctly

¹ Report and Order and Second Further Notice of Proposed Rulemaking (Second FNPRM), Digital Opportunity Data Collection (DODC) WC Docket Nos. 19-195 and 11-10, at para 1.

² Report and Order and Second Further Notice of Proposed Rulemaking (Second FNPRM), Digital Opportunity Data Collection (DODC) WC Docket Nos. 19-195 and 11-10, at para 2.

states, “to complement this granular broadband availability data, we adopt a process to begin collecting public input, sometimes known as ‘crowdsourcing,’ on the accuracy of service providers’ broadband deployment data.”³

In the Second Further Notice of Proposed Rulemaking (Second Notice), the FCC seeks comment on “certain aspects of the Digital Opportunity Data Collection to enhance the accuracy and usefulness of broadband deployment reporting. We also seek comment on ways that we can develop location-specific data that could be overlaid onto the polygon-based data in this new data collection to precisely identify the homes and small businesses that have and do not have access to broadband services.”

4

DISCUSSION

I. Collecting More Granular Data

The FCC seeks comment on whether Commission staff should prescribe rules for reporting fixed wired broadband deployment that will provide consistently reliable results for similarly-situated filers. Colorado recommends the FCC direct fixed wired providers to report address points rather than coverage polygons. We recognize the volume of data this will require of providers, but prescribing the creation of coverage polygons could be more burdensome and in fact could prove to have similar flaws as the FCC’s current use of census block reporting, which significantly overstates broadband availability.

³ Report and Order and Second Further Notice of Proposed Rulemaking (Second FNPRM), Digital Opportunity Data Collection (DODC) WC Docket Nos. 19-195 and 11-10, at para 3.

⁴ Report and Order and Second Further Notice of Proposed Rulemaking (Second FNPRM), Digital Opportunity Data Collection (DODC) WC Docket Nos. 19-195 and 11-10, at para 4.

We believe that the FCC should prescribe rules for reporting fixed wired broadband deployment. However, the process of prescribing and describing the creation of “coverage polygons” would be extremely difficult and subject to misinterpretation and inconsistencies that are inherent in developing the polygons.

Any globally-applied constraint would be likely to over- or under-state service availability. For example, if a location is “served”, and a circular buffer is used to represent that service, what is the size of the buffer? Is the size of the buffer dependent on population density of the location? If so, how is density determined? By attempting to create a polygon using a globally applied constraint, such as a circular buffer, the data would lose continuity and uniformity from provider to provider, therefore making comparison and validation difficult.

Furthermore, creating polygons based on addresses served by the fixed provider overcomplicates the process by taking simple, raw data, such as addresses served, and making it less granular by putting a polygon around it. The extra step of creating the polygon contributes no additional value to the accuracy of the data. We believe that requiring service providers to report address level data is less complicated and more accurate than the creation of coverage polygons that are, in essence, based on that address data.

The questions posed in paragraph 79 of the Second FNPRM demonstrate the complicated nature of: 1) creating a methodology of defining coverage polygons; 2) instituting that methodology; 3) ensuring consistent application of the methodology by providers; 4) collecting and processing the polygons; 5) creating a process for validation; and 6) validating the polygons. The FCC should simply direct service providers to submit geocoded, anonymized address level data, not unlike the process the Universal Service Administrative Company (USAC) uses today for providers participating in modernized Connect America Fund programs, in which providers must

file broadband deployment data, including latitude and longitude coordinates, for every location where service is available.

The FCC also seeks comment on establishing standards for reporting coverage polygons for terrestrial fixed-wireless broadband service. We agree that the FCC should adopt a set of standards for determining terrestrial fixed-wireless coverage using propagation models. Colorado is comfortable using propagation models for terrestrial fixed wireless, as these models typically have a low margin of error because many fixed-wireless solutions tend to serve closely defined geographic areas. Using propagation models rather than address points offer the best accuracy while reducing the burden of address level reporting for terrestrial fixed wireless providers.

II. Improving Broadband Data Quality

The FCC seeks comment on what steps the Commission can or should take to support the production of high quality data and requests recommendations for other relevant data that should be gathered as part of the new broadband deployment data collection.

Colorado recommends the Commission require providers to report, in addition to the current requirements, data that reflects customer subscribed speed, average delivered speed, price, and latency. Additionally, the FCC would be better informed if providers were required to report denials of service and the reason for denials, such as the cost of connection, insufficient bandwidth capacity, or inability to reach a location.

We support the Commission's desire to produce high quality data in order to validate the accuracy of service providers' reported broadband deployment data. We believe an appropriate methodology to identify unreliable filings would include collecting

information from state governments, including state public utility commissions, state broadband offices, local and Tribal governmental entities, as well as traditional complaints from members of the public, and other crowdsourced data. Optimally, this data would be collected and utilized proactively by the Commission and compared to provider reported data as a validation mechanism, as opposed to solely using a complaint-based, reactive process for a specific area in question. For example, the Commission could utilize a nationwide speed test dataset to validate provider reported data in order to identify discrepancies, and require the provider to address those discrepancies without the necessity of a third-party complaint. Any discrepancy that the Commission identifies proactively, using crowdsourced data, should be treated as a complaint.

In order to avoid bad-faith or malicious challenges, such as a dispute to every address in a fixed provider's footprint via an automated tool or bot, we recommend complaints by a single user be allowed to contain multiple disputed locations in a contiguous geographic area and addressed as a single complaint.

Colorado agrees that the FCC should direct the USAC to create a system to track complaints and concur with Connected Nation's recommendation that the Commission should establish "a cyclical, scheduled feedback process in which there are defined windows for receiving feedback, analyzing and validating feedback, and updating the map after feedback has been adjudicated."⁵ We recommend that these defined windows not exceed 45 days, to avoid compromising timely funding decisions.

If the USAC finds pervasive reporting errors, bad faith, or a refusal to correct data that has been found inaccurate, additional steps should be taken, such as referring the matter to the FCC for enforcement action and penalties. Additionally, we recommend that the FCC's enforcement actions should include making the service

⁵ Report and Order and Second Further Notice of Proposed Rulemaking (Second FNPRM), Digital Opportunity Data Collection (DODC) WC Docket Nos. 19-195 and 11-10, at para 90.

provider ineligible to receive Universal Service Funds (USF) and/or forfeiture of previously committed USF funds.

III. Incorporating Location Information

The idea of creating a dataset of broadband serviceable locations could lead to more uniformity in provider reported data. However, the methodology and the resulting Broadband Serviceable Location Fabric, need to be better documented, made publicly available, and peer-reviewed before being integrated into the DODC. At this point, there are no assurances that this methodology will improve accuracy or that standards can be prescribed that would ensure consistent implementation by providers.

CONCLUSION

Colorado is acutely aware of the rural broadband gap and we have substantial experience in utilizing quality data in order to direct state resources to close that gap. That is why we support the FCC's efforts to enhance the accuracy and usefulness of broadband deployment reporting. We think this objective is best accomplished by requiring the submission of address level data from fixed wired providers and propagated coverage data from terrestrial fixed wireless providers.

Ultimately, it is imperative that the FCC make public the granular data collected as a result of this proceeding so that local, state, and federal policymakers can make informed decisions before allocating any future broadband funding. The utility of this granular data for policymakers only exists if it is publicly available, no more than 6 months old, and updated on a regular interval.