

**Universal Service Administrative Company  
Request for Information  
Database of Broadband-Addressable Locations**

## **1. INTRODUCTION**

Universal Service Administrative Company (USAC) is issuing this Request for Information (RFI) for information and planning purposes only, and does not constitute an offer to fund, as a whole or in part, the opportunities referenced herein. This RFI does not represent a pre-solicitation synopsis or a solicitation and does not constitute a Request for Proposal (RFP) nor a promise to issue an RFP in the future. This RFI does not commit USAC to contract for any supply or service whatsoever. Further, USAC is not at this time seeking proposals and will not accept unsolicited proposals. Respondents are advised that USAC will not pay for any information or administrative costs incurred in response to this RFI; all costs associated with responding to this RFI will be solely at the interested party's expense. Not responding to this RFI does not preclude participation in any future RFP, if any is issued. The responses to this RFI will be reviewed by USAC and the Federal Communication Commission (FCC), will be made publicly available through the FCC's Electronic Comment Filing System, and may be used to develop requirements for future needs and may lead to the development and preparation of a formal RFP.

## **2. BACKGROUND**

Since 2014, the FCC has collected data through FCC Form 477 on where broadband service is available to fixed locations across the United States and its territories. Fixed broadband providers report broadband deployment on a census block-by-census block basis, reporting which blocks they can serve. This can lead to an overstated depiction of fixed broadband deployment in some cases.

In August 2019, the FCC adopted rules for a new collection of data on broadband availability, the Digital Opportunity Data Collection.<sup>1</sup> The Digital Opportunity Data Collection requires fixed broadband providers to submit coverage polygons depicting where they make service available, i.e. where a fixed broadband provider has a current broadband connection or could provide such a connection within ten (10) business days of a customer request, without an extraordinary commitment of resources, and without construction charges or fees exceeding an ordinary service activation fee. USAC and the Commission are currently working to implement the Digital Opportunity Data Collection, and the coverage polygons submitted in response to this collection will provide a more granular and accurate depiction of fixed broadband availability.

However, simply knowing which portions of a census block are served or unserved by broadband service does not provide enough information to identify the specific locations within that census block that lack fixed broadband service. The Commission therefore proposed to have USAC collect, and incorporate into the Digital Opportunity Data Collection, data on the

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<sup>1</sup> Establishing the Digital Opportunity Data Collection, Modernizing the FCC Form 477 Data Program, WC Docket Nos. 19-195 and 11-10, *Report and Order and Second Further Notice of Proposed Rulemaking*, 34 FCC Rcd 7505 (2019) (*Digital Opportunity Data Collection Order & Further Notice*).

locations of all homes, businesses, and structures in the United States to which broadband Internet access is or should be made available (broadband-addressable locations).

The Commission has recognized the importance of understanding the precise number and position of broadband-addressable locations in administering High Cost Universal Service Support. For example, in the recently adopted *Rural Digital Opportunity Fund Order*, the Commission determined that it would target Phase II of the Rural Digital Opportunity Fund to unserved *locations* – i.e., to individual locations identified as lacking service – rather than to entirely unserved census blocks (in addition to census blocks that are not awarded in Phase I of the auction).<sup>2</sup> The Commission also directed the Wireline Competition Bureau to publish revised location counts for the census blocks awarded in Phase I of the Rural Digital Opportunity Fund auction no later than the end of year six of the Phase I service milestones.<sup>3</sup> The Commission also said it would use these new location counts “to determine whether a Rural Digital Opportunity Fund support recipient offers the required voice and broadband service throughout the designated area by the end of year eight.”<sup>4</sup> Therefore, having information on specific locations is essential to both the Commission’s ability to determine eligibility for Phase II of the Rural Digital Opportunity Fund and USAC’s ability to track recipients’ compliance with their Rural Digital Opportunity Fund obligations.

This RFI seeks information from interested parties on how such data can be generated, collected, and shared with the public. Detailed questions on this effort are provided below.

### 3. PURPOSE

The purpose of the RFI is to gather information to support the creation of a database of all broadband-addressable locations in the United States. USAC intends to get a broad overview of the products and services available in the marketplace that could be used to accurately generate and collect such data. USAC notes that the descriptions below are merely an expression of intent and do not constitute a complete list of must-meet requirements for a database of broadband-addressable locations.

#### A. Defining a Location

As a foundation for generating a database of broadband-addressable locations, the FCC is considering how to define such a location and what kinds of locations should be broadband serviceable. The *Digital Opportunity Data Collection Order & Further Notice* refers to locations as “houses, businesses, and structures,”<sup>5</sup> and proposes that each location be recorded as a single point, defined by a latitude and longitude, that would likely represent a building on a parcel. To inform the Commission’s decision regarding what should constitute a broadband-addressable location and how this would affect the creation of the broadband-addressable

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<sup>2</sup> Rural Digital Opportunity Fund, Connect America Fund, WC Docket Nos. 19-126 and 10-90, *Report and Order*, FCC 20-5, paras. 5, 9 (rel. Feb. 7, 2020) (*Rural Digital Opportunity Fund Order*).

<sup>3</sup> *Id.* at para. 45.

<sup>4</sup> *Id.*

<sup>5</sup> *Digital Opportunity Data Collection Order & Further Notice*, 34 FCC Rcd at 7545, para. 100.

location database, USAC requests respondents to answer the following questions with a focus on the practical considerations of collecting data on individual location points.

- Is it more feasible to identify individual buildings or entire parcels as broadband-addressable locations? If broadband service is available to a parcel, can it be assumed that all of the buildings on that parcel are or can be served by broadband? What are the practical trade-offs of identifying the following points as the broadband-addressable location: the centroid of a parcel, all of the buildings or structures on a parcel, the individual building(s) on a parcel that are or should be served by broadband, such as housing units and small businesses? In cases where there are multiple buildings on a parcel, is it necessary and is it possible to determine which should be considered broadband-addressable?
- In the case of Multi-Tenant Environments (MTEs) (e.g., apartment buildings), the FCC has sought comment on whether each individual unit within an MTE, or the entire building, should be considered a broadband-addressable location. If the former, is it feasible to record the location of each individual unit within an MTE? What are the trade-offs of identifying a separate latitude/longitude (and perhaps altitude) point for each unit versus recording a single point for the building and its total number of units?
- The definition of a “location” in the context of the Connect America Fund (CAF) is specific: residential and business locations to which providers would extend mass market broadband and voice services.<sup>6</sup> Businesses that purchase or would be expected to purchase dedicated high-capacity transmission services are excluded.<sup>7</sup> In addition, the Commission has specified that locations in the CAF context include the number of individual units in apartment buildings or office buildings, not simply the buildings themselves.<sup>8</sup> The definition of a location might therefore differ between the requirements of the Connect America Fund and the Digital Opportunity Data Collection in some ways. What additional work would be required to create and maintain a database capable of reporting on two different definitions? For example, if the definition used for the Digital Opportunity Data Collection required tracking of buildings or parcels, while the definition used for Connect America Fund required individual units in MTEs, what additional sources and work would be required? Or, if individual units were used for both databases, but the Connect America Fund database excluded locations expected to purchase high-capacity services, what would be required?

## B. Data Sources

Creating and maintaining a database of all broadband-addressable locations will likely require bringing together multiple sources of data on the locations of buildings, homes, and other structures. USAC requests input from respondents on which data sources you would use and why.

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<sup>6</sup> See *Wireline Competition Bureau Provides Guidance to Carriers Receiving Connect America Fund Support Regarding Their Broadband Location Reporting Obligations*, WC Docket No. 10-90, Public Notice, 31 FCC Rcd 12900, 12903 (WCB 2016). *Connect America Fund et al.*, WC Docket No. 10-90 et al., Order on Reconsideration, 33 FCC Rcd 1380, 1390, para. 27 (2018).

<sup>7</sup> *Wireline Competition Bureau Provides Guidance to Carriers Receiving Connect America Fund Support Regarding Their Broadband Location Reporting Obligations*, WC Docket No. 10-90, Public Notice, 31 FCC Rcd 12900, 12905 (WCB 2016).

<sup>8</sup> The Commission requires providers to report buildings as individual records, but then to report the number of units in each building.

USAC requests that respondents address the following questions:

- Which different data sources would you use to create and maintain a database of all broadband-addressable locations? For example, would you rely on parcel data and building-location data, as was done for the BLSF? Would you use other data sources, such as land use data? Would you use image recognition techniques or software to identify and catalog broadband-addressable locations? What are the benefits and downsides of the various data sources?
- Which data sources require that additional work be conducted to identify broadband-addressable locations? How much “manual” work (work not automated by code) would need to be done to identify locations? Please explain in detail the nature of such work. What methodologies, business rules, or logic would you apply to identify locations? How would you ensure consistency when manual, subjective tasks are performed to identify locations using certain data sources?
- For each data source that you would use to develop and maintain a database of broadband-addressable locations, what license rights would need to be obtained? How would a requirement that the database of broadband-accessible locations be made publicly available affect which data sources you would use to create the database? What is the trade-off between the cost of a dataset and the extent to which its data are made publicly available?
- Are there data sources that are open source or have some type of Creative Commons licensing scheme that would be appropriate for the broadband-accessible locations database, or are only commercial data sources appropriate?
- For each data source upon which a database of broadband-addressable locations would rely, how often are the data updated? How does the data refresh schedule affect the accuracy of the database on an ongoing basis? Do updates to datasets affect the cost of maintaining an accurate database?
- Alternatively, are there vendors that might create (or have created) an off-the-shelf dataset of broadband-addressable locations that could be licensed for this purpose, rather than having to create a new dataset by piecing together information from different data sources?

### **C. Data Quality Checks**

USAC seeks input from respondents on how to ensure the quality of the broadband-addressable location database and ask respondents to address the questions below.

- How would you check the database for different types of errors, such as incorrectly including structures that do not require a broadband connection, excluding structures that should be included, or mischaracterizing the type of structure (e.g., business versus residential)?
- How would you measure completeness of the database (whether it includes all of the locations it should)?
- Would you likely contract with a separate vendor to oversee data quality checks or handle that within your own firm?
- What datasets are available against which you would check the quality of the data in the broadband-accessible location database? What is the usefulness of the datasets listed below

for this purpose? Are they complete? How often are they updated? What other datasets could be useful?

- U.S. Census block-level housing unit data
- U.S. Census Bureau annual county-level housing unit estimates
- National Address Database
- Open Address Database
- Which types of errors can the various datasets address?
- Could a statistically valid sample of locations in the broadband-accessible location database be verified manually? If so, how would you stratify such a sample into different categories? How would you verify the sampled locations (e.g., via satellite imagery, in person, or another method)?
- If feedback from the public were to be considered in maintaining the quality of the database, how would you verify the quality of public feedback?
- How would you improve the quality of the broadband-accessible location database over time? What are the various benefits and costs of improving the accuracy of the database?

#### 4. RFI RESPONSE FORMAT

The RFI response shall be in two parts. The first part is a written response (as detailed below), which may lead to the second part, a request for a demonstration. Based on the written responses, USAC may invite selected respondents to present or demonstrate their approach to USAC and FCC staff. The demonstration may take place either at USAC headquarter offices located at 700 12th Street NW, Suite 900, Washington, DC 20005 (preferred), or remotely via a video teleconference session.

Respondents' written response should have numbered pages and include an index, or table of contents, referencing the appropriate page numbers for the following sections:

**Section I – Maximum 5 pages**

- a. Company Profile (including a point of contact information)
- b. Statement of Relevant Experience

**Section II – No Maximum page count**

- a. Response to questions outlined in Section 3

**Section III – Maximum 10 pages**

- a. Any additional information that might be useful

**Section IV – Maximum 2 page**

- a. To the extent available, detailed price estimate for any recommended solution(s) (please note that cost ranges will be used solely for budgetary analysis and for establishing a potential target budget).

#### 5. RFI TIMELINE

Event	Date
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RFI Issue Date:	February, 18, 2020
Last Day For Vendor Questions:	March 2, 2020 at 2:00 PM ET
USAC Responses To Questions:	March 12, 2020 at 2:00 PM ET
Vendor Responses Due:	March 26, 2020 at 2:00 PM ET
Vendor Demonstration:	April 6 – 10, 2020

## 6. RFI SUBMISSION INSTRUCTIONS

All responses to this RFI are due no later than 2:00 PM ET, March 26, 2020. Responses received after this date and time may not be considered for review. Responses should be prepared simply and economically, and provide a straightforward and concise explanation of the information requested. Emphasis should be on completeness and clarity. Please submit one (1) electronic copy (PDF) of your response to Noor Jalal at [rfp@usac.org](mailto:rfp@usac.org). All submissions must include **“Response to RFI - Database of Broadband-Addressable Locations”** in the subject line. Please note that all electronic submissions must be limited to a maximum size of 25 GB.

## 7. VENDOR INQUIRIES AND QUESTIONS

Questions and inquiries, regarding this RFI, must be submitted by 2:00 PM ET, March 2, 2020 . Please submit all questions to Noor Jalal at [rfp@usac.org](mailto:rfp@usac.org) and include **“Questions to RFI - Database of Broadband-Addressable Locations”** in the subject line.

## 8. USAC POINT OF CONTACT INFORMATION

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