

# **Virginia Broadband Availability Map**

## **Internet Service Provider Service Territory Data Submission Guidelines**



**Bryan W. Horn**

Director

**Tamarah Holmes, Ph.D.**

Director, Office of Broadband

# **Virginia Broadband Availability Map**

## **Internet Service Provider Service Territory Data**

### **Submission Guidelines**

Section P of Item 115 of Chapter 2, 2022 Acts of Assembly, 2022 Special Session 1, commonly known as the Budget Bill, directs the Department of Housing and Community Development (DHCD) to develop a statewide broadband availability map indicating broadband coverage, including maximum broadband speeds available in service territories in the Commonwealth. As directed in the Budget Bill, all broadband service providers shall be required to submit updated service territory data to the Department annually, containing the locations to which they provide broadband service.

Pursuant to budget bill language, the Department may publish only anonymized versions of the map, showing serviceable and unserviceable by broadband without reference to any specific provider. The map shall not include information regarding ownership or control over the network or networks providing service. Information submitted by a broadband provider in connection with this section shall be excluded from the requirements of the Virginia Freedom of Information Act (§ 2.2-3700 et seq.). Information submitted by a broadband provider pursuant to this section shall be used solely for the purposes stated under this section and shall not be released by the Department, or any other public records custodian, without the express written permission of the submitting broadband provider.

#### **Data Submission Requirements**

Pursuant to budget bill language, broadband providers shall be required to submit updated service territory data to the Department annually. Also, in no instance may the Department require broadband providers to submit any data, in either substantive content or form, beyond that which the provider is required to submit to the Federal Communications Commission (FCC) pursuant to the federal Broadband Deployment Accuracy and Technological Availability Act, 47 U.S.C. § 641 et. seq. Service territory data includes where the provider has actually built out their broadband network infrastructure and is able to provide that service through a standard broadband installation.<sup>1</sup>

Broadband providers include terrestrial fixed, mobile or fixed wireless, or satellite<sup>2</sup> providing broadband internet access service and includes entities required to provide the federal government with information on FCC Form 477 or as part of the federal Digital Opportunity Data Collection program pursuant to 47 U.S.C. § 214(e)(6) for any portion of the

---

<sup>1</sup> As referenced in Public Law 116-130, commonly known as the “Broadband Deployment Accuracy and Technological Availability Act” a standard broadband installation means the initiation by a provider of fixed broadband internet access service in an area where the provider has not previously offered that service, with no charges or delays attributable to the extension of the network of the provider; and includes the initiation of fixed broadband internet access service through routine installation that can be completed not later than 10 business days after the date on which the service request is submitted.

<sup>2</sup> Satellite-based broadband providers that have been designated as an eligible telecommunications carrier pursuant to 47 U.S.C. § 214(e)(6) for any portion of the Commonwealth shall be required to submit comparable data as other broadband providers

Commonwealth.

The data submitted must meet the requirements established in the federal Broadband DATA Act (Act, 47 U.S.C. § 641 et. seq.), as outlined in these guidelines, and include granular service territory data. DHCD strongly encourages submitted service territory data to be based upon the Virginia Geographic Information Network (VGIN) unique ADDPTKEY. Service territory data submitted using unique ADDPTKEYs as identified in the VGIN Site Address Point database significantly reduces the risk of misrepresenting the service territories of broadband providers, as the VGIN Site Address Point database serves as the base layer for the map. For best practices around incorporating unique address IDs, contact the Office of Broadband and Virginia Tech Center for Geospatial Information Technology at the contact information provided below.

This data must be submitted in one, or both, of the following formats:

### ***CSV Spreadsheet -***

- This is the preferred data format for fixed providers
- Spreadsheet in .csv format
- Each serviceable location must be represented as an ADDPTKEY in its own row (reference example submission file)
- Each row must also include:
  - Brand name of the entity or service advertised or offered to consumers
  - Technology code as designated by [CSV and Shapefile Guidelines](#)
  - The maximum speed available at the location referenced for speeds greater than or equal to 25/3 Mbps (download/upload)
  - For speeds below 25/3 providers must report locations for speeds greater than or equal to 10/1 Mbps. (Digital input; yes - 10/1 or above but less than 25/3)
  - Whether the network round-trip latency associated with each maximum speed combination reported for a particular geographic area is less than or equal to 100 ms, based on the 95th percentile of measurements
  - Whether the reported service is available to residential and/or business customers

### ***GIS Point shapefiles-***

- Acceptable alternate submission method
- .shp, .shx, .dbj, and .prj are mandatory for shapefile upload.
- Shapefiles must provide point data representing serviceable locations, with each point correlating to each serviceable location in a single layer
- Attribute data must include
  - Brand name of the entity or service advertised or offered to consumers
  - VGIN's ADDPTKEY for serviceable locations (strongly encouraged)
  - Technology code as designated by [CSV and Shapefile Guidelines](#)
  - The maximum speed available at the location referenced for speeds greater than or equal to 25/3 Mbps (download/upload)
  - For speeds below 25/3 providers must report locations for speeds greater than or equal

- to 10/1 Mbps. (Digital input; yes - 10/1 or above but less than 25/3)
- Whether the network round-trip latency associated with each maximum speed combination reported for a particular geographic area is less than or equal to 100 ms, based on the 95th percentile of measurements
- Whether the reported service is available to residential and/or business customers

### ***GIS Polygon shapefiles-***

- Acceptable alternate submission method
- .shp, .shx, .dbj, and .prj are mandatory for shapefile upload.
- Shapefiles must provide polygons depicting the areas where providers actually have broadband-capable networks and make fixed broadband service available to end-user locations.
- Attribute data must include:
  - Brand name of the entity or service advertised or offered to consumers
  - VGIN's ADDPTKEY for serviceable locations (strongly encouraged)
  - Technology code as designated by [CSV and Shapefile Guidelines](#)
  - The maximum speed available at the location referenced for speeds greater than or equal to 25/3 Mbps (download/upload)
  - For speeds below 25/3 providers must report locations for speeds greater than or equal to 10/1 Mbps. (Digital input; yes - 10/1 or above but less than 25/3)
  - Whether the network round-trip latency associated with each maximum speed combination reported for a particular geographic area is less than or equal to 100 ms, based on the 95th percentile of measurements
  - Whether the reported service is available to residential and/or business customers
- Providers may submit those polygons of service territory data which were also submitted to the Federal Communications Commission under the Broadband Data Collection process, provided the polygons meet the requirements outlined above.
- If the provider submits a polygon without address-level information, it will be assumed that all addresses contained in the polygon, as provided in the VGIN Site Address Point database, will have the same services as indicated by the polygon attribute data.

### ***Requirements for mobile providers-***

- This is the required data format for mobile providers
- .shp, .shx, .dbj, and .prj are mandatory for shapefile upload.
- Mobile providers must submit coverage maps based on the following specified parameters:
  - For 4G LTE services - a minimum expected user download speed of 5 Mbps and user upload speed of 1 Mbps at the cell edge; for 5G-NR services - a minimum expected user download speed of 7 Mbps and user upload speed of 1 Mbps, and a minimum expected user download speed of 35 Mbps and user upload speed of 3 Mbps at the cell edge.
  - (ii) For each of the mobile broadband technologies, 4G LTE and 5G-NR, and for

- mobile voice services, the provider's coverage maps must reflect coverage areas where users should expect to receive the minimum required download and upload speeds with cell edge coverage probability of not less than 90% and a cell loading of not less than 50%.
- (iii) For each of the mobile broadband technologies, 4G LTE, and 5G-NR, and for mobile voice services, the provider's coverage maps must account for terrain and clutter and use terrain and clutter data with a resolution of 100 meters or better. Each coverage map must have a resolution of 100 meters or better.
  - (iv) For each of the mobile broadband technologies, 4G LTE, and 5G-NR, and for mobile voice services, the provider's coverage maps must be submitted in vector format.
  - Propagation maps submitted by providers must depict outdoor coverage, to include both on-street or pedestrian stationary usage, and in-vehicle mobile usage, as two separate maps.
  - No coverage maps are required for 3G service or below
  - Additional information may be required if the reported coverage is petitioned in the future, provided that any such information is consistent with the information and form required by the FCC rules

This data must be submitted to the Broadband Data Submission Portal by December 1, 2022. Failure to submit data by this deadline may result in supplemental action by the Commonwealth of Virginia.

Assistance with data submission is available from the DHCD Office of Broadband and CGIT at the contact emails below. After submission, providers will be notified of a successful submission once the data has been verified to be functional. Once the coverage data is published on the state broadband map there will be an opportunity for the public, government entities, and third parties to petition the accuracy of the data.

### **Permissions for Data Usage**

By submitting service territory data for the purposes of this process, internet service providers also permit DHCD to use the data submitted for the purpose of challenging broadband availability mapping data under the Federal Communications Commission's Broadband Data Collection (BDC) program.

### **Requirements of Petitioning Inaccuracies in the Commonwealth Connection:**

Internet service providers may petition DHCD to correct inaccuracies in the Commonwealth Connection map. Two processes are outlined below for petitioning inaccuracies. These two processes are for the purpose of (1) petitioning inaccuracies in an internet provider's own service territory, as well as (2) petitioning inaccuracies in service territory data as depicted on the Commonwealth Connection Map. Prior to submitting a petition under either process, DHCD strongly encourages petitioners to contact DHCD staff at [broadband@dhcd.virginia.gov](mailto:broadband@dhcd.virginia.gov).

### ***Petitioning Inaccuracies on an Internet Service Provider's own Service Territory Data***

Internet service providers wishing to petition DHCD to correct inaccuracies in their own service coverage data as displayed on the map should contact both emails listed under the Contact Information section of this document. Petitions under this category must be received by DHCD by March 1, 2023 to be considered. These petitions must include a cover letter explaining the alleged inaccuracies in the data as displayed on the Commonwealth Connection map, and if necessary, an updated submission in accordance with the requirements outlined under these guidelines. Any determination made by the department pursuant to any specific petition under this section with respect to any specific map to correct inaccuracies shall be final and not subject to further review. DHCD will update the Commonwealth Connection map reflecting these petitions by June 1, 2023.

### ***Petitioning Inaccuracies on Service Territory Data as depicted on the map***

Internet service providers seeking to petition DHCD to correct inaccuracies in service territory data as displayed on the Commonwealth Connection Map must submit the information required below to initiate the petition process to both email addresses listed under the Contact Information section of this document. DHCD must receive all of the information detailed below or the petition will be deemed incomplete and invalid. Petitioners must provide:

- A cover letter explaining the justification for the petition
- A signed and notarized affidavit affirming the petition and attached information is true.
- Point shapefiles that show each location in the petitioned area, designated by a singular mapped point, in the petitioned area containing attribute data showing the addresses of each point; or, Polygon shapefiles delineating the general petitioned area(s). These files must be provided in .zip file form and must be in alignment with the shapefile guidelines provided above under the Data Submission Requirements Section. Locations in the petitioned area may also be submitted as a list of VGIN ID points in a comma delimited text file (.csv), so long as their formatting conforms to the [CSV and Shapefile Guidelines](#).  
*Note: Point and polygon shapefiles submitted with petitions are subject to the Freedom of Information Act and will not be provided FOIA exemption.*
- Petitioners must, for a minimum of at least 50% of locations in the petitioned area, provide written justification for the basis of the petition. DHCD requires petitioners to conduct speed tests on at least 20% of locations in the petitioned area to justify assertions included in the petition. DHCD prefers speed tests to be conducted at the access point (i.e. customer premise equipment, router, or modem) at the end-user location.

Petitions under this category must be received by DHCD by March 1, 2023 to be considered. DHCD will review all applicable petition information to determine if a petition is credible. If deemed credible, DHCD will notify internet service providers which purported service coverage in the petitioned area by March 15, 2023.

DHCD will provide the opportunity for internet service providers which purported service coverage in the petition area to submit a rebuttal to the petition. If planning to submit a rebuttal, internet service providers must notify DHCD of this intent by March 22, 2023. Upon this notification, DHCD will provide at a minimum, the cover letter, affidavit, and shapefiles

submitted with the petition to internet service providers seeking to submit a rebuttal. All rebuttal information must be submitted to DHCD by April 21, 2023. Information submitted to contest a petition is at the discretion of the internet service provider submitting the rebuttal. All information submitted in the rebuttal process by an internet service provider shall be considered voluntarily submitted by that internet service provider.

If a petition is not rebutted, DHCD will make a determination based upon the information submitted in the petition. Any determination made by the department pursuant to any specific petition under this section with respect to any specific map to correct inaccuracies shall be final and not subject to further review. DHCD will update the Commonwealth Connection map reflecting petition determinations by June 1, 2023 and notify internet service providers of the determination by this date.

**Contact Information:**

DHCD Office of Broadband: [broadband@dhcd.virginia.gov](mailto:broadband@dhcd.virginia.gov)

VT Center for Geospatial Information Technology: [cgitsupport@vt.edu](mailto:cgitsupport@vt.edu)