



Broadband Data Collection

National Broadband Map Public Data API Specifications and Instructions

October 10, 2024

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Change Log

Revision	Date	Comments
1.0	2023-11-03	Initial release
1.1	2023-11-14	Corrected paths for View List of Availability Data, View List of Challenge Data, and Download File API endpoints.
1.2	2024-04-22	Added APIs for Funding Map: View List of Funding Data Downloads, Download File
1.3	2024-06-20	Broadband Summary by Geography Type downloads are now split into separate exports - "Census Place" and "Other Geographies"
1.4	2024-10-10	Reorganized "View List of Availability Data Downloads" API

1 Overview

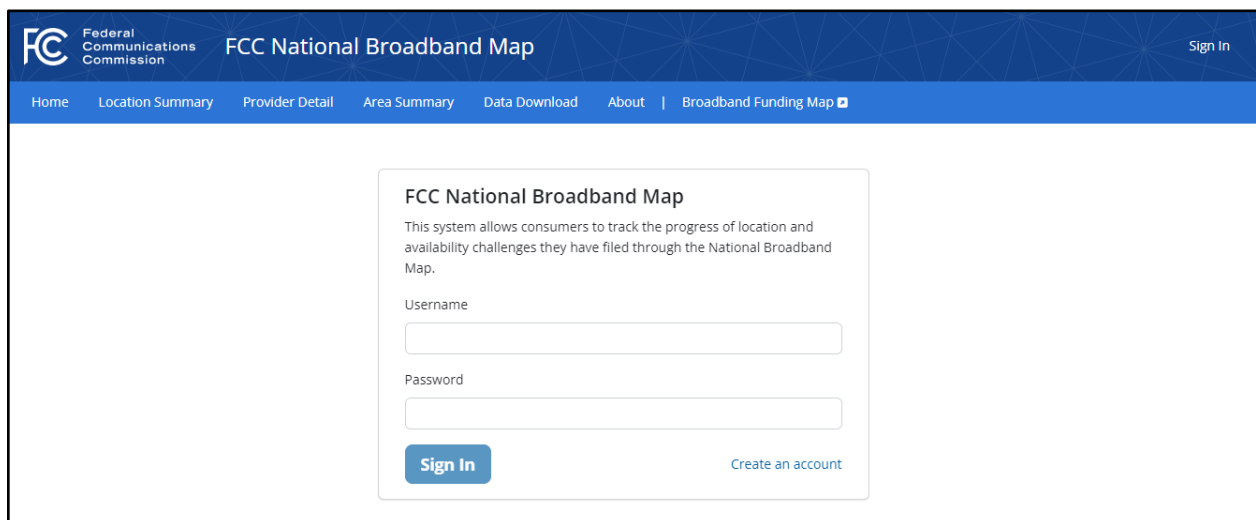
The National Broadband Map (NBM) includes a series of public-facing application programming interfaces (APIs) that allow users to extract information available from the map directly, without having to download multiple individual files from the NBM website. These files are available from the National Broadband Map - *Data Download* page (<https://broadbandmap.fcc.gov/data-download>), and users can download various files related to (1) broadband availability data by both state and provider, and (2) challenges to the broadband serviceable location fabric, fixed broadband availability data, and mobile broadband availability data. The specifications for the BDC Public Data Download files are available at <https://us-fcc.app.box.com/v/bdc-data-downloads-output>.

The list of available APIs is outlined below. In addition, OpenAPI (Swagger) YAML files can be accessed at <https://us-fcc.box.com/v/bdc-public-data-api-swagger>.

As a prerequisite, users must have an active FCC User Registration account, including a username and password. If you do not have an account, instructions on how to create one can be found at <https://help.bdc.fcc.gov/hc/en-us/articles/20044640394395>. In order to access the APIs, users also must generate an API token, within the BDC system, which is used to authenticate user access.

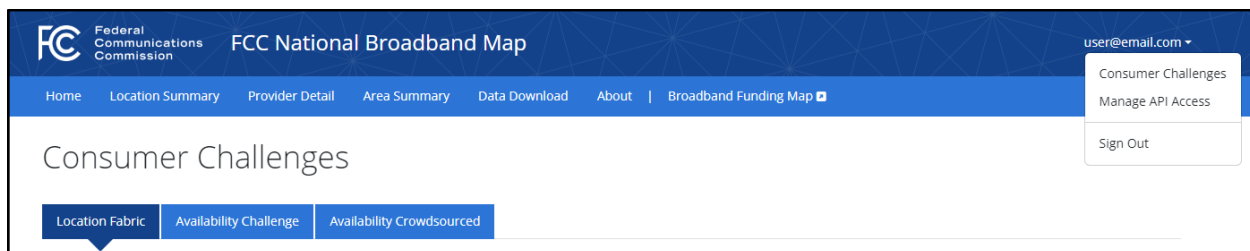
2 Generating an API Access Token

To create an API token, users must first log into the NBM application through the following link <https://broadbandmap.fcc.gov/login> using their FCC User Registration credentials.

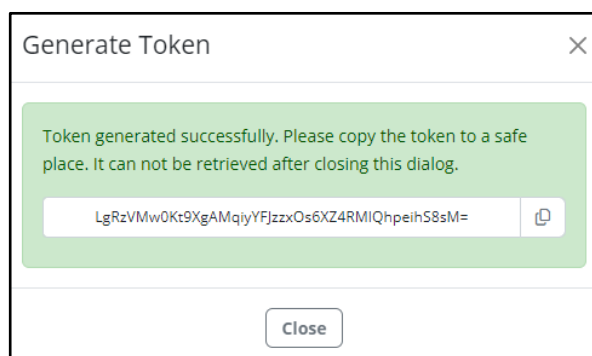


The screenshot shows the login interface for the FCC National Broadband Map. At the top, there is a header with the FCC logo, the text 'Federal Communications Commission', and 'FCC National Broadband Map'. A 'Sign In' link is in the top right corner. Below the header is a navigation bar with links: 'Home', 'Location Summary', 'Provider Detail', 'Area Summary', 'Data Download', 'About', and 'Broadband Funding Map'. The main content area features a login box titled 'FCC National Broadband Map' with the description: 'This system allows consumers to track the progress of location and availability challenges they have filed through the National Broadband Map.' Inside the box are input fields for 'Username' and 'Password', a 'Sign In' button, and a 'Create an account' link.

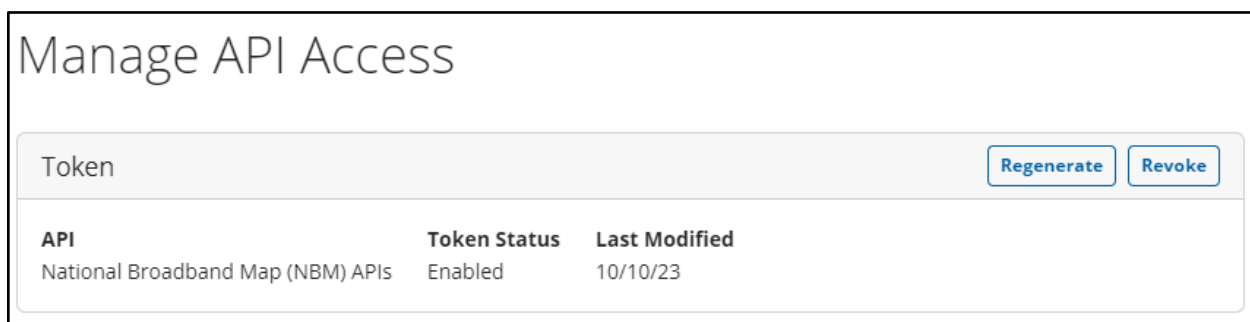
Upon successful login, you will be navigated to a Consumer Challenges page. From there, click on your username in the top right corner of the page. You will see a navigation menu that includes a “Manage API Access” option. Select that option.



Clicking on the “Manage API Access” link will navigate you to a standalone Manage API Access page. From this page, click the “Generate” button and a modal, shown below, will appear. This modal will display your token value. **Copy your token value and save it to a safe location.** The token value, along with your username, will be required to access the BDC APIs.





After clicking the “Close” button, you will be return to the Manage API Access page. There, the Token Status and Last Modified date for your token will be displayed, as shown below. You can regenerate or revoke their tokens at any time.



Please note that an API token may be revoked by an FCC Administrator at any time. If your token has been disabled, a banner will be displayed within the Manage API Access page instructing you to contact the FCC for further assistance.

Manage API Access

Token is currently disabled. Please contact the FCC to enable your token.

- [Contact the FCC](#) 
- [BDC Help Center](#) 

Token

API	Token Status	Last Modified
National Broadband Map (NBM) APIs	Disabled	10/10/23

Note: If you have previously generated a token within the Broadband Data Collection System, that token will be displayed to you when you first navigate to the Manage API Access page.

3 Broadband Data Collection APIs

The different APIs that can be used to extract the data available from the NBM are described below.

3.1 View List of As Of Dates

Method: GET

Path: /api/public/map/listAsOfDates

Rate Limit: 10 calls per minute

Description: Provides a listing of “as of dates” available for each data type

Path parameters:

- None

Header parameters:

- username (string) - *required*
- hash_value (string) - *required*

Query parameters:

- None

Definition of output fields

Field Name	Description
data_type	Name identifying the data type (i.e. availability, challenge)
as_of_date	Data as-of date in ISO-8601 date format (i.e., YYYY-MM-DD).

3.2 View List of Availability Data Downloads

Method: GET

Path: /api/public/map/downloads/listAvailabilityData/{as_of_date}

Rate Limit: 10 calls per minute

Description: Provides a full listing of all coverage files that are available for download for a given “as of date”

Path parameters:

- as_of_date (date format ‘YYYY-MM-DD’) - *required*

Header parameters:

- username (string) - *required*
- hash_value (string) - *required*

Query parameters:

- category (string) - *optional*
 - *Valid Values:* Summary, State, Provider
- subcategory (string) - *optional*
 - *Valid Values (category = Summary):* Summary by Geography Type - Census Place, Summary by Geography Type - Other Geographies, Summary by Geography Type - Census Place, Summary by Geography Type - Other Geographies, Provider Summary by Geography Type, Provider Summary
 - *Valid Values (category = State):* Provider List, Location Coverage, Hexagon Coverage
 - *Valid Values (category = Provider):* Location Coverage, Hexagon Coverage, Raw Coverage, Supporting Data
- technology_type (string) - *optional*
 - *Valid Values:* Fixed Broadband, Mobile Broadband, Mobile Voice
- speed_tier (string) - *optional*
 - *Valid Values (category = Provider | Subcategory = Hexagon Coverage OR Raw Coverage):* 35/3, 7/1

Definition of output fields

Field Name	Description
file_id	Unique identifier for the data download
category	Primary category for the data download
subcategory	Subcategory for the data download
technology_type	Type of technology (Fixed Broadband, Mobile Broadband, Mobile Voice)
technology_code	Code for the technology with which the provider reports to provide service
technology_code_desc	Description for the technology with which the provider reports to provide service

Field Name	Description
speed_tier	The download/upload speed for 5G coverage in Mbps (35/3, 7/1)
state_fips	2-digit FIPS code for the selected state / territory from the current U.S. Census Bureau data (leading zero included)
state_name	US state / territory associated with the data
provider_id	Unique identifier for the service provider
provider_name	Name of the holding company for the service provider
file_type	The file type of the data download (csv, gis)
file_name	The file name of the data download
record_count	The number of records contained within the data download

3.3 View List of Challenge Data Downloads

Method: GET

Path: /api/public/map/downloads/listChallengeData/{as_of_date}

Rate Limit: 10 calls per minute

Description: Provides a full listing of all challenge files that are available for download for a given “as of date”

Path parameters:

- as_of_date (date format ‘YYYY-MM-DD’) - *required*

Header parameters:

- username (string) - *required*
- hash_value (string) - *required*

Query parameters:

- category (string) - *optional*
 - *Valid Values:* Fabric Challenge - In Progress, Fabric Challenge - Resolved, Fixed Challenge - Cumulative, Fixed Challenge - In Progress, Fixed Challenge - Resolved, Mobile Challenge - In Progress, Mobile Challenge - Resolved

Definition of output fields

Field Name	Description
file_id	Unique identifier for the data download
category	Primary category for the data download
state_fips	2-digit FIPS code for the selected state / territory from the current U.S. Census Bureau data (leading zero included)
state_name	US state / territory associated with the data
record_count	The number of records contained within the data download

3.4 Download File

Method: GET

Path: /api/public/map/downloads/downloadFile/{data_type}/{file_id}/{file_type}

Rate Limit: 10 calls per minute

Description: Allows users to download availability and challenge data based on the ID and type of the file

Constraints: None

Path parameters:

- data_type (string) - *required*
 - *Valid Values:* availability, challenge
- file_id (string) - *required*
 - *Valid Values:* From APIs defined in 3.2 and 3.3 above
- file_type (string) - *optional*
 - *Valid Values (where file_type = gis):* 1 = ESRI Shapefile, 2 = GeoPackage

Header parameters:

- username (string) - *required*
- hash_value (string) - *required*

Query parameters:

- None

4 Funding Map APIs

The different APIs that can be used to extract the data available from the Funding Map are described below.

4.1 View List of Funding Data Downloads

Method: GET

Path: /api/public/fundingmap/downloads/listFundingData

Rate Limit: 10 calls per minute

Description: Provides a full listing of all funding map files that are available for download

Path parameters:

- None

Header parameters:

- username (string) - *required*
- hash_value (string) - *required*

Query parameters:

- None

Definition of output fields

Field Name	Description
file_id	Unique identifier for the data download
category	Primary category for the data download
data_type	<i>Unserved-Unfunded:</i> List of locations that are both unserved and unfunded for various technologies and speeds <i>Funding Data:</i> Raw data submitted by Agency
agency_name	Name of Agency providing broadband funding
program_name	Name of funded Program
project_name	Name of funded Project
state_fips	2-digit FIPS code for the selected state / territory from the current U.S. Census Bureau data (leading zero included)
state_name	US state / territory associated with the data
file_name	The file name of the data download
record_count	The number of records contained within the data download

4.2 Download File

Method: GET

Path: /api/public/fundingmap/downloads/downloadFile/{file_id}

Rate Limit: 10 calls per minute

Description: Allows users to download funding map data based on the ID of the file

Constraints: None

Path parameters:

- file_id (string) - *required*
 - *Valid Values:* From APIs defined in 3.2 and 3.3 above

Header parameters:

- username (string) - *required*
- hash_value (string) - *required*

Query parameters:

- None