



**Broadband Data Collection  
Systems Development and  
Implementation**  
*Special Project:*  
**Broadband Funding Map Support**



**BROADBAND FUNDING MAP  
DATA SPECIFICATIONS (VERSION 8)**

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# I. Program Data

Program Data contains both general and broadband-related information associated with each Program. Users have the ability to create individual Programs using a web form. Users may also create multiple Programs in one action by uploading a CSV file.

Program Data			
Format: CSV or Form Entry			
All values are required unless otherwise specified			
Field Name	Data Type	Example	Description
agency	Text	Federal Communications Commission	Government Agency under which the Program resides. This is a full-text Agency name (i.e., not abbreviated)
program	Text	ABC Program	Name of broadband-support program used by the named Agency publicly. Agencies can decide at what level they define programs and sub-programs.
program_acronym	Text	RDOF	Commonly used acronym for Program <i>This field is optional</i>
program_url	Text	<a href="https://www.fcc.gov/auction/904">https://www.fcc.gov/auction/904</a>	Web page describing the Program <i>This field is optional</i>
authorized_date	Date	2022-06-01	Date of approval by Congress or Agency, as appropriate <i>Date must be in yyyy-mm-dd format</i>
funding_source	Text	Federal Communications Commission	Funding Source for the Program  For Programs explicitly funded by legislation: the name and cite of the statute.  For Programs funded in other ways: the Program or authority that raised the funding.
program_desc	Text		Description of Program. This is a free-text overview of the Program for the public.
eligibility_desc	Text		Description of eligibility rules. This is a free-text overview of any limits on participation in the Program. This can apply to the areas eligible for support (e.g., limits to rural or Tribal areas) or to entities that can receive support.

program_start	Date	2022-06-01	Date when this Program was first created or funded <i>Date must be in yyyy-mm-dd format</i>
program_end	Date	2022-12-31	Date by which all buildout required under the Program should be completed or date of last disbursement, whichever is later <i>Date must be in yyyy-mm-dd format</i> <i>This field is optional</i>
mindown	Integer	100	Minimum download speed (in Mbps) required for all Projects under the Program. Individual Projects may require higher download speeds or providers may deploy a higher speed
minup	Integer	10	Minimum upload speed (in Mbps) required for all Projects under the Program. Individual Projects may require higher upload speeds or providers may deploy a higher speed
lowlatency	Boolean Integer	1	Boolean integer flag indicating whether the Program requires all Projects to provide low-latency service, defined as round-trip latency at 100 ms or below <i>Value must be one of the following codes: 0 - False 1 - True</i> <i>This field is optional</i>
funding_type	Enumerated String	L	Funding type for the Program - whether the Program provides loans, grants, combinations or other types of support. <i>Value must be one of the following codes: L - Loan G - Grant C - Combination of Loan and Grant O - Other</i>
funding_ob	Integer	1000000	The aggregate amount of funding (in dollars) at the Program level assigned to specific Projects. This value will change as new Projects are officially obligated/funded, and may change if the Program is expanded

funding_disb	Integer	500000	The aggregate amount of funding (in dollars), whether loans or grants, actually disbursed (sent) by the Federal Agency to recipients at the Program level (e.g., does not account for sub-granting). Ultimately, disbursed funding should equal to the obligated funding net of defaults
funding_def	Integer	100000	The aggregate amount of funding (in dollars) at the Program level that recipients have indicated they will not use and are returning or have returned to the Agency. Defaults may be due to changes in Project scope or may come about if a Project is canceled by the Agency or recipient
funding_loan	Integer	10000	The aggregate amount of funding (in dollars) for loans at the Program level. If populated, the value of funding_loan and funding_grant should equal the total funding obligated, of any defaults.  <i>This field is optional</i>
funding_grant	Integer	10000	The aggregate amount of funding (in dollars) for grants at the Program level. If populated, the value of funding_loan and funding_grant should equal the total funding obligated, net of any defaults  <i>This field is optional</i>
program_cost	Integer	100000	The total cost (in dollars) of deploying all Projects supported by the Program. This value may be substantially higher than the funds obligated as it includes private capital as well as any matching funding from other sources, like states.  <i>This field is optional</i>
assistance_listings	Decimal	12.345	Number assigned to the public description of federal programs that provide assistance awards. Formerly the Catalog of Federal Domestic Assistance (CFDA) number.
other_desc	Text	Subsidy	Description of Agency-defined Funding Type  <i>This field is required when funding_type = "O" (Other). Otherwise, it must be null.</i>

## II. Project Data

There are three types of Project data within a Program:

1. **Projects defined by an Area** - Project boundaries are defined by an area (i.e. polygon)
2. **Projects defined by a list of Locations** - List of locations planned for the Project
3. **Projects defined by Middle Mile** - Line segments representing Middle Mile Projects

### A. Projects Defined by an Area

Projects defined by Area are comprised of two files that contain (1) Project Attribute information (in CSV format) and (2) broadband information within the Project Area (in a polygon file).

#### 1. Project Attribute File

Area-Based Projects - Project Attributes			
Format: CSV			
All values are required unless otherwise specified			
Field Name	Data Type	Example	Description
project	Text	Project XYZ	Free-text name assigned by the Agency for this Project for public use. Must be unique within the Program and may include information about provider, geography, technology, etc.  <i>This value must be unique for the Program.</i>
tranche	Text	Tranche 1	Free-text name assigned by the Agency to describe groups of Projects for public use. These may represent years, phases, rounds, states, or other Agency-defined groups that help organize Projects into Programs  <i>This field is optional</i>
fund_ob	Integer	1000000	Total funding (in dollars) for this Project under this Program, regardless of type (loans, grants, etc.)
project_cost	Integer	1000000	The total cost (in dollars) of deploying this Project, regardless of whether funded by this Program. This value may be substantially higher than the funds obligated as it includes private capital as well as any matching funding from other sources, like states.  <i>This field is optional</i>

proj_start	Date	2022-06-01	The date when funding is first committed (or publicly announced to the Project)  <i>Date must be in yyyy-mm-dd format</i>
proj_end	Date	2026-12-31	The date by which all deployment must be completed for the Project.  <i>Date must be in yyyy-mm-dd format</i>
tribal_id	Text	0010R	Census Bureau's geoid, used in their geospatial Tribal data, to designate Tribal areas.  <i>For any Project with tribal_location_pct or tribal_funding, this field must be populated, otherwise it must be null.</i>  <i>For any Project with multiple IDs, the field must be a semicolon delimited list corresponding to the order in tribal_location_pct and tribal_funding fields.</i>
tribal_location_pct	Integer	75	Percentage of locations for this Project that fall into Federally recognized Tribal lands, using Census Bureau geospatial data for Tribal definitions.  <i>This value is required for any Project with a tribal_id, otherwise the value must be null</i>  <i>For any Project that intersects multiple Tribal areas, the field must be a semicolon delimited list corresponding to the order in the tribal_id field</i>
tribal_funding	Integer	10000	Amount of funding (in dollars) dedicated to Federally recognized Tribal lands included within the Project. This value may be null even for Projects that include Tribal areas and Tribal locations since funding amounts may not be explicitly tied to Tribal areas.  <i>For any Project that intersects multiple Tribal areas, the field must be a semicolon delimited list corresponding to the order in the tribal_id field</i>

cadence	Enumerated Integer	1	How often the Provider is required to report on progress for this Project.  <i>Value must be one of the following codes:</i> <i>1 - Monthly</i> <i>2 - Quarterly</i> <i>3 - Biannually</i> <i>4 - Annually</i>
fund_awarded	Integer	100000	The amount of funding (in dollars) awarded/committed by the Agency to this Project. Depending on how the Program awards funding, this may need to be updated regularly, or only once. This value should be updated to reflect any defaults.
fund_expended	Integer	100000	The amount of funding (in dollars) that the Provider has expended across the lifetime of the Project. When the Project is completed, fund_expended should be equal to fund_awarded.
fund_loan	Integer	10000	Amount (in dollars) of the support provided by the Agency in the form of loans.  <i>This field is optional</i>
fund_grant	Integer	10000	Amount (in dollars) of the support provided by the Agency in the form of grants.  <i>This field is optional</i>

## 2. Project Area File

### Area-Based Projects - Project Area File (polygon)

**Format:** Shapefile, GeoJSON, File GeoDB, GeoPackage

All values are required unless otherwise specified

Field Name	Data Type	Example	Description
project	Text	Project XYZ	Free-text name assigned by the Agency for this Project for public use. Must be unique within the Program and may include information about provider, geography, technology, etc.  <i>This value must be unique for the Program and correspond to a value in the Project Attribute file.</i>

tranche	Text	Tranche 1	<p>Free-text name assigned by the Agency to describe groups of Projects for public use. These may represent years, phases, rounds, states, or other Agency-defined groups that help organize Projects into Programs</p> <p><i>The project/tranche combination must correspond to the values provided in the Project Attribute file</i></p>
proj_gid	Integer	123	<p>Agency-created unique integer to identify the Project Area Geometry (primary key)</p> <p><i>This value must be unique within the Program. When Buildout data is uploaded, the proj_gid within the Buildout file must correspond to the proj_gid value provided in the Project Area GIS file.</i></p>
providerid	Integer	123456	<p>FCC-provided ID for Providers that will align with the entity that files or will file BDC data. Agencies should use the ID of current ISPs for any partnerships or joint ventures that includes an ISP. All current BDC folders already have such an ID. Program recipients that are not already BDC filers will be issued a new ID.</p>
brandname	Text	Verizon	<p>A name the Provider uses to offer service to the Public. This should be associated with the providerid in their BDC filings as well (or the Provider should plan to do so, if this is a new brand)</p> <p><i>This field is optional</i></p>
build_req	Integer	100	<p>The fraction of Broadband-Serviceable Locations in the Project area that the Provider is required to make service available to. If the Provider is required to make service available to all locations, this value should be 100. If the Provider does not need to make service available to all locations, this number will be less than 100.</p>
loc_plan	Integer	1000	<p>The number of locations reported by the Agency in the buildout plan for the Project (i.e., not calculated based on the area submitted). Agencies may need to update this value if there are changes in the Project to align with location counts in the area.</p>
loc_sup	Integer	500	<p>The number of locations reported by the Agency as supported within the Project boundary. This may differ from loc_plan if the Agency is supporting the buildout of only some locations in a larger footprint.</p>



technology	Enumerated Integer	50	<p>Planned technology used by the Provider to make service available. These values match those used in BDC reporting.</p> <p><i>Value must be one of the following codes:</i></p> <p>0 - Other  10 - Copper Wire  40 - Coaxial Cable/HFC  50 - Optical Carrier/Fiber to the Premises  60 - Geostationary Satellite  61 - Non-geostationary Satellite  70 - Unlicensed Terrestrial Fixed Wireless  71 - Licensed Terrestrial Fixed Wireless  72 - LBR Terrestrial Fixed Wireless</p> <p><i>For any Project that may contain multiple planned technologies, this field may be entered as a semicolon delimited array. Buildouts within the Project must align with the technology code(s) included within this field.</i></p>
maxdown	Integer	100	<p>The lowest planned maximum download speed (in Mbps) the Provider is capable of offering in the area for this Project. This number does not represent the lowest speed the Provider will offer for service, but the lowest value of the technology's maximum speed. For example, if a Provider deploys gigabit FTTP, this value would be 1,000. If they deploy DSL that has a maximum speed of 100 Mbps in some parts of the Project area and 25 Mbps in others, 25 should be reported.</p>
maxup	Integer	50	<p>The lowest planned maximum upload speed (in Mbps) the Provider is capable of offering in the area for this Project. This number does not represent the lowest speed the Provider will offer for service, but the lowest value of the technology's maximum speed. For example, if a Provider deploys gigabit FTTP, this value would be 1,000. If they deploy DSL that has a maximum speed of 100 Mbps in some parts of the Project area and 25 Mbps in others, 25 should be reported.</p>

geom	Geometry		Geospatial data, in WGS84 projection, that covers the extent of the Project.  <i>The geometry must be unique to the proj_gid</i>
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## B. Projects Defined by a List of Locations

Projects defined by Locations are comprised of two files that contain (1) Project Attribute information, and (2) a listing of end-user locations that include provider, technology, and speed information.

### 1. Project Attribute File

Location-Based Project - Project Attributes			
Format: CSV			
All values are required unless otherwise specified			
Field Name	Data Type	Example	Description
project	Text	Project XYZ	Free-text name assigned by the Agency for this Project for public use. Must be unique within the Program and may include information about provider, geography, technology, etc.  <i>This value must be unique for the Program.</i>
tranche	Text	Tranche 1	Free-text name assigned by the Agency to describe groups of Projects for public use. These may represent years, phases, rounds, states, or other Agency-defined groups that help organize Projects into Programs  <i>This field is optional</i>
fund_ob	Integer	1000000	Total funding (in dollars) for this Project under this Program, regardless of type (loans, grants, etc.)
project_cost	Integer	1000000	The total cost (in dollars) of deploying this Project, regardless of whether funded by this Program. This value may be substantially higher than the funds obligated as it includes private capital as well as any matching funding from other sources, like states.  <i>This field is optional</i>

build_req	Integer	100	The fraction of Broadband-Serviceable Locations in the Project area that the Provider is required to make service available to. If the provider is required to make service available to all locations, this will be 100; if they do not need to make service available to all locations, this number will be less than 100.
loc_plan	Integer	1000	The number of locations reported by the Agency in the buildout plan for the Project (i.e., not calculated based on the location list submitted). Agencies may need to update this value if there are changes in the project to align with location counts in the area.
loc_sup	Integer	500	The number of locations reported by the Agency as supported among the locations provided. This may differ from loc_plan if the Agency is supporting the buildout of only some locations in a larger footprint
proj_start	Date	2022-06-01	The date when funding is first committed (or publicly announced to the Project) <i>Date must be in yyyy-mm-dd format</i>
proj_end	Date	2022-12-31	The date by which all deployment must be completed for the Project. <i>Date must be in yyyy-mm-dd format</i>
tribal_id	Text	0010R	Census Bureau's geoid, used in their geospatial Tribal data, to designate Tribal areas.  <i>For any Project with tribal_location_pct or tribal_funding, this field must be populated, otherwise it must be null.</i>  <i>For any Project with multiple IDs, the field must be a semicolon delimited list corresponding to the order in tribal_location_pct and tribal_funding fields.</i>
tribal_location_pct	Integer	75	Percentage of locations for this Project that fall into Federally recognized Tribal lands, using Census Bureau geospatial data for Tribal definitions.  <i>This value is required for any Project with a tribal_id, otherwise the value must be null</i>  <i>For any Project that intersects multiple Tribal areas, the field must be a semicolon delimited list corresponding to the order in the tribal_id field</i>

tribal_funding	Integer	10000	<p>Amount of funding (in dollars) dedicated to Federally recognized Tribal lands included within the Project. This value may be null even for Projects that include Tribal areas and Tribal locations since funding amounts may not be explicitly tied to Tribal areas.</p> <p><i>For any Project that intersects multiple Tribal areas, the field must be a semicolon delimited list corresponding to the order in the tribal_id field</i></p>
cadence	Enumerated Integer	1	<p>How often the Provider is required to report on progress for this Project.</p> <p><i>Value must be one of the following codes:</i>  <i>1 - Monthly</i>  <i>2 - Quarterly</i>  <i>3 - Biannually</i>  <i>4 - Annually</i></p>
fund_awarded	Integer	100000	<p>The amount of funding (in dollars) awarded/committed by the Agency to this Project. Depending on how the Program awards funding, this may need to be updated regularly, or only once. This value should be updated to reflect any defaults.</p>
fund_expended	Integer	100000	<p>The amount of funding (in dollars) that the Provider has expended across the lifetime of the Project. When the Project is completed, fund_expended should be equal to fund_awarded.</p>
fund_loan	Integer	10000	<p>Amount (in dollars) of the support provided by the Agency in the form of loans.</p> <p><i>This field is optional</i></p>
fund_grant	Integer	10000	<p>Amount (in dollars) of the support provided by the Agency in the form of grants.</p> <p><i>This field is optional</i></p>

## 2. Project Location List File

### Location-Based Project - Location List

**Format: CSV**

All values are required unless otherwise specified

project	Text	Project XYZ	Free-text name assigned by the Agency for this Project for public use. Must be unique within the Program and may include information about provider, geography, technology, etc.  <i>This value must be unique for the Program and correspond to a value in the Project Attribute file</i>
tranche	Text	Tranche 1	Free-text name assigned by the Agency to describe groups of Projects for public use. These may represent years, phases, rounds, states, or other Agency-defined groups that help organize Projects into Programs  <i>The project/tranche combination must correspond to the values provided in the Project Attribute file</i>
providerid	Integer	123456	FCC-provided ID for Providers that will align with the entity that files or will file BDC data. Agencies should use the ID of current ISPs for any partnerships or joint ventures that includes an ISP. All current BDC folders already have such an ID. Program recipients that are not already BDC filers will be issued a new ID.
brandname	Text	Verizon	A name the Provider uses to offer service to the Public. This should be associated with the providerid in their BDC filings as well (or the Provider should plan to do so, if this is a new brand)  <i>This field is optional</i>
gid	Integer	123	Agency-created unique integer to identify the location (primary key)  <i>This number must be unique for the Project</i>

technology	Enumerated Integer	50	<p>Planned technology used by the Provider to make service available. These values match those used in BDC reporting.</p> <p><i>Value must be one of the following codes:</i></p> <p>0 - Other  10 - Copper Wire  40 - Coaxial Cable/HFC  50 - Optical Carrier/Fiber to the Premises  60 - Geostationary Satellite  61 - Non-geostationary Satellite  70 - Unlicensed Terrestrial Fixed Wireless  71 - Licensed Terrestrial Fixed Wireless  72 - LBR Terrestrial Fixed Wireless</p> <p><i>For any Project that may contain multiple planned technologies, this field may be entered as a semicolon delimited array. Buildouts within the Project must align with the technology code(s) included within this field.</i></p>
maxdown	Integer	100	The lowest maximum download speed associated with the planned technology for this point (in Mbps).
maxup	Integer	50	The lowest maximum upload speed associated with the planned technology for this point (in Mbps).
location_type	Enumerated Integer	1	<p>Indicator as to whether the location is a BSL as defined/captured in the FCC Fabric.</p> <p><i>The value must be one of the following codes:</i>  0 - Broadband Internet Access Service (BIAS)  1 - Non-BIAS  2 - Both</p> <p><i>This field is optional for location-based Projects</i></p>
location_id	Integer	123456879	<p>Unique identification number for the Broadband Serviceable Fabric Location. This number should not change, but providers may decide they will need to add/remove points over time and would then need to update this ID.</p> <p><i>Field can be blank if latitude, longitude, address_primary, city, state, no_units and zip_code are provided</i></p>

latitude	Decimal (10, 7)	38.903693	<p>Unprojected (WGS-84) geographic coordinate latitude in decimal degrees of the location</p> <p><i>Value must have a minimum precision of 6 decimal digits</i></p> <p><i>Field can be blank if location_id is provided. If location_id is null, this field is required</i></p>
longitude	Decimal (10, 7)	-77.009682	<p>Unprojected (WGS-84) geographic coordinate longitude in decimal degrees of the location</p> <p><i>Value must have a minimum precision of 6 decimal digits</i></p> <p><i>Field can be blank if location_id is provided. If location_id is null, this field is required</i></p>
address_primary	Text	123 Main Street	<p>Address of the location. Should conform to USPS standards if at all feasible.</p> <p><i>Field can be blank if location_id is provided. If location_id is null, this field is required</i></p>
city	Text	Washington	<p>Full name of the city, town, municipality or census designated place where the Project Buildout data will be deployed. Should conform to USPS standards if at all possible.</p> <p><i>Field can be blank if location_id is provided. If location_id is null, this field is required</i></p>
state	String (2)	DC	<p>Two-letter USPS abbreviation identifying the state where the Project Buildout data will be deployed.</p> <p><i>Field can be blank if location_id is provided. If location_id is null, this field is required</i></p>
zip_code	String (5)	20002	<p>Five-digit USPS ZIP code where the Project Buildout data will be deployed</p> <p><i>Field can be blank if location_id is provided. If location_id is null, this field is required</i></p>
zip_code_suffix	String (4)	1234	<p>Four-digit USPS ZIP+4 code suffix, if applicable</p> <p><i>Value is optional and may be null</i></p>
no_units	Integer	3	<p>Count of housing and/or business units that share the same location. If a building contains both housing and business units, the field contains the sum of both types.</p> <p><i>Field can be blank if location_id is provided. If location_id is null, this field is required</i></p>

cai_type	Enumerated String	G	<p>Community Anchor Institution type</p> <p><i>Value must be one of the following codes:</i></p> <p><i>S - Location is a K-12 <b>school</b>, junior college, university (a Community Anchor Institution) that does/would not subscribe to a mass market service</i></p> <p><i>L - Location is a <b>library</b> (a Community Anchor Institution) that does/would not subscribe to a mass market service</i></p> <p><i>G - Location is a <b>government</b> building (a Community Anchor Institution) that does/would not subscribe to a mass market service</i></p> <p><i>H - Location is a <b>healthcare</b> building (a Community Anchor Institution) that does/would not subscribe to a mass market service</i></p> <p><i>F - Location is a public safety location (a Community Anchor Institution like <b>Fire</b> or EMS locations) that does/would not subscribe to a mass market service</i></p> <p><i>This field is optional</i></p>
building_type_code	Enumerated String	B	<p>The Building Type Code for the location</p> <p><i>Value must be one of the following codes:</i></p> <p><i>B - Business-only location</i></p> <p><i>R- Residential-only location</i></p> <p><i>X - Business and Residential location</i></p> <p><i>G - Group Quarters location</i></p> <p><i>C - Community Anchor Institution</i></p> <p><i>E - Enterprise location</i></p> <p><i>O - Other</i></p> <p><i>This field is optional</i></p> <p><i>If a location_id is null for a gid (i.e., a latitude/longitude is provided in place of a location_id), and the building_type_code for that gid is null, a value of O/Other will be used as the default value for that gid</i></p>



## C. Middle Mile Projects

Middle Mile Projects are comprised of two files that contain (1) Project attribute information, and (2) a listing of middle mile line segments included by provider, technology, and speed.

### 1. Project Attribute File

Middle Mile - Project Attributes			
Format: CSV			
All values are required unless otherwise specified			
Field Name	Data Type	Example	Description
project	Text	Project XYZ	Free-text name assigned by the Agency for this Project for public use. Must be unique within the Program and may include information about provider, geography, technology, etc.  <i>This value must be unique for the Program.</i>
tranche	Text	Tranche 1	Free-text name assigned by the Agency to describe groups of Projects for public use. These may represent years, phases, rounds, states, or other Agency-defined groups that help organize Projects into Programs  <i>This field is optional</i>
fund_ob	Integer	1000000	Total funding (in dollars) for this Project under this Program, regardless of type (loans, grants, etc.)
project_cost	Integer	1000000	The total cost (in dollars) of deploying this Project, regardless of whether funded by this Program. This value may be substantially higher than the funds obligated as it includes private capital as well as any matching funding from other sources, like states.  <i>This field is optional</i>
proj_start	Date	2022-06-01	The date when funding is first committed (or publicly announced to the Project)  <i>Date must be in yyyy-mm-dd format</i>
proj_end	Date	2025-12-31	The date by which all deployment must be completed for the Project.  <i>Date must be in yyyy-mm-dd format</i>

tribal_id	Text	0010R	<p>Census Bureau's geoid, used in their geospatial Tribal data, to designate Tribal areas.</p> <p><i>For any Project with tribal_location_pct or tribal_funding, this field must be populated, otherwise it must be null.</i></p> <p><i>For any Project with multiple IDs, the field must be a semicolon delimited list corresponding to the order in tribal_location_pct and tribal_funding fields.</i></p>
tribal_location_pct	Integer	75	<p>Percentage of locations for this Project that fall into Federally recognized Tribal lands, using Census Bureau geospatial data for Tribal definitions.</p> <p><i>This value is required for any Project with a tribal_id, otherwise the value must be null</i></p> <p><i>For any Project that intersects multiple Tribal areas, the field must be a semicolon delimited list corresponding to the order in the tribal_id field</i></p>
tribal_funding	Integer	10000	<p>Amount of funding (in dollars) dedicated to Federally recognized Tribal lands included within the Project. This value may be null even for Projects that include Tribal areas and Tribal locations since funding amounts may not be explicitly tied to Tribal areas.</p> <p><i>For any Project that intersects multiple Tribal areas, the field must be a semicolon delimited list corresponding to the order in the tribal_id field</i></p>
cadence	Enumerated Integer	1	<p>How often the Provider is required to report on progress for this Project.</p> <p><i>Value must be one of the following codes:</i></p> <p><i>1 - Monthly</i></p> <p><i>2 - Quarterly</i></p> <p><i>3 - Biannually</i></p> <p><i>4 - Annually</i></p>
fund_awarded	Integer	100000	<p>The amount of funding (in dollars) awarded/committed by the Agency to this Project. Depending on how the Program awards funding, this may need to be updated regularly, or only once. This value should be updated to reflect any defaults.</p>

fund_expended	Integer	100000	The amount of funding (in dollars) that the Provider has expended across the lifetime of the Project. When the Project is completed, fund_expended should be equal to fund_awarded.
fund_loan	Integer	10000	Amount (in dollars) of the support provided by the Agency in the form of loans. <i>This field is optional</i>
fund_grant	Integer	10000	Amount (in dollars) of the support provided by the Agency in the form of grants. <i>This field is optional</i>

## 2. Project Line Segment File

Middle Mile - Line Segment Data			
<b>Format: Shapefile, GeoJSON, File GeoDB, GeoPackage</b>			
All values are required unless otherwise specified			
project	Text	Project XYZ	Free-text name assigned by the Agency for this Project for public use. Must be unique within the Program and may include information about provider, geography, technology, etc.  <i>This value must be unique for the Program and correspond to a value in the Project Attribute file.</i>
tranche	Text	Tranche 1	Free-text name assigned by the Agency to describe groups of Projects for public use. These may represent years, phases, rounds, states, or other Agency-defined groups that help organize Projects into Programs  <i>The project/tranche combination must correspond to the values provided in the Project Attribute file</i>
providerid	Integer	123456	FCC-provided ID for Providers that will align with the entity that files or will file BDC data. Agencies should use the ID of current ISPs for any partnerships or joint ventures that includes an ISP. All current BDC folders already have such an ID. Program recipients that are not already BDC filers will be issued a new ID.

brandname	Text	Verizon	<p>A name the Provider uses to offer service to the Public. This should be associated with the providerid in their BDC filings as well (or the Provider should plan to do so, if this is a new brand)</p> <p><i>This field is optional</i></p>
gid	Integer	123	<p>Agency-created unique integer to identify each line segment submitted (primary key)</p> <p><i>This number must be unique for the Project</i></p>
technology	Enumerated Integer	50	<p>Planned technology used by the Provider to make service available. These values match those used in BDC reporting.</p> <p><i>Value must be one of the following codes:</i></p> <p><i>50 - Optical Carrier/Fiber to the Premises</i>  <i>70 - Unlicensed Terrestrial Fixed Wireless</i>  <i>71 - Licensed Terrestrial Fixed Wireless</i>  <i>72 - LBR Terrestrial Fixed Wireless</i></p> <p><i>For any Project that may contain multiple planned technologies, this field may be entered as a semicolon delimited array. Buildouts within the Project must align with the technology code(s) included within this field.</i></p>
downlink	Integer	100	The planned physical layer downlink speed (in Mbps) the Middle Mile line segment is capable of providing.
uplink	Integer	50	The planned physical layer uplink speed (in Mbps) the Middle Mile line segment is capable of providing.
geom	Geometry	-	Geospatial data, in WGS84 projection, for each line segment of the Project. The geometry must be unique to the Provider/technology/speed.

### III. Project Buildout Data

Includes a listing of completed Buildouts from the Project data. Buildouts are associated with the Project file based on their type:

- **Polygon Boundaries** - Lists buildout locations within the project polygon boundary
- **Location Data** - Lists the GIDs (from the Project data) of the location buildouts
- **Middle Mile Data** - Lists the GIDs (from the Project data) of the middle-mile buildouts

#### A. Projects Defined by an Area

A single file contains a listing of end-user buildout locations by provider, technology, and speed, along with completion dates.

Area-Based Projects - Buildout Data			
Format: CSV			
All values are required unless otherwise specified			
Field Name	Data Type	Example	Description
project	Text	Project XYZ	Free-text name assigned by the Agency for this Project for public use. Must be unique within the Program and may include information about provider, geography, technology, etc.  <i>This value must correspond to the Project name within the Project polygon file</i>
tranche	Text	Tranche 1	Free-text name assigned by the Agency to describe groups of Projects for public use. These may represent years, phases, rounds, states, or other Agency-defined groups that help organize Projects into Programs  <i>The project/tranche combination must correspond to the values provided in the Project Attribute file</i>
proj_gid	Integer	123	Agency-created unique integer to identify the Project Area Geometry (primary key)  <i>This value must be unique within the Program. When Buildout data is uploaded, the proj_gid within the Buildout file must correspond to the proj_gid value provided in the Project Area GIS file.</i>

location_type	Enumerated Integer	1	Indicator as to whether the location is a BSL as defined/captured in the FCC Fabric.  <i>The value must be one of the following codes: 0 - Broadband Internet Access Service (BIAS) 1 - Non-BIAS 2 - Both</i>
location_id	Integer	123456879	Unique identification number for the Broadband Serviceable Fabric Location. This number should not change, but Providers may decide they will need to add/remove points over time and would then need to update this ID.  <i>Field can be blank if latitude, longitude, address_primary, city, state, no_units and zip_code are provided</i>
gid	Integer	123	Agency-created unique integer to identify the location.  <i>This number must be unique for a Project</i>
no_units	Integer	3	Count of housing and/or business units that share the same location  <i>Field can be blank if location_id is provided. If location_id is null, this field is required</i>
latitude	Decimal (10, 7)	38.903693	Unprojected (WGS-84) geographic coordinate latitude in decimal degrees of the location  <i>Value must have a minimum precision of 6 decimal digits  Field can be blank if location_id is provided. If location_id is null, this field is required</i>
longitude	Decimal (10, 7)	-77.009682	Unprojected (WGS-84) geographic coordinate longitude in decimal degrees of the location  <i>Value must have a minimum precision of 6 decimal digits  Field can be blank if location_id is provided. If location_id is null, this field is required</i>

cai_type	Enumerated String	S	<p>Community Anchor Institution type</p> <p><i>Value must be one of the following codes:</i></p> <p><i>S - Location is a K-12 <b>school</b>, junior college, university (a CAI) that does/would not subscribe to a mass market service</i></p> <p><i>L - Location is a <b>library</b> (a CAI) that does/would not subscribe to a mass market service</i></p> <p><i>G - Location is a <b>government</b> building (a CAI) that does/would not subscribe to a mass market service</i></p> <p><i>H - Location is a <b>healthcare</b> building (a CAI) that does/would not subscribe to a mass market service</i></p> <p><i>F - Location is a public safety location (a CAI like <b>Fire</b> or EMS location) that does/would not subscribe to a mass market service</i></p> <p><i>This field is optional</i></p>
ofs_date	Date	2022-06-01	<p>The Open for Sale (OFS) date signifying when the deployed technology is made available to consumers, generally after the deployment date.</p> <p><i>Field can be blank if deployed_date is provided</i></p>
deployed_date	Date	2025-12-31	<p>The date the location was made available for service. This does not necessarily include the installation of the drop, but a location that is reported as deployed must meet the requirements for reporting to the FCC as part of the Broadband Data Collection (i.e., that the unit can be connected within 10 business days without an extraordinary installation fee)</p>
providerid	Integer	123456789	<p>FCC-provided ID for Providers that will align with the entity that files or will file BDC data. Agencies should use the ID of current ISPs for any partnerships or joint ventures that includes an ISP. All current BDC folders already have such an ID. Program recipients that are not already BDC filers will be issued a new ID.</p>
brandname	Text	Verizon	<p>A name the Provider uses to offer service to the Public. This should be associated with the providerid in their BDC filings as well (or the Provider should plan to do so, if this is a new brand)</p> <p><i>This field is optional</i></p>

technology	Enumerated Integer	50	<p>Last-mile technology used by the Provider to make service available. The values match those used in BDC.</p> <p><i>Value must be one of the following codes:</i></p> <p>0 - Other</p> <p>10 - Copper Wire</p> <p>40 - Coaxial Cable/HFC</p> <p>50 - Optical Carrier/Fiber to the Premises</p> <p>60 - Geostationary Satellite</p> <p>61 - Non-geostationary Satellite</p> <p>70 - Unlicensed Terrestrial Fixed Wireless</p> <p>71 - Licensed Terrestrial Fixed Wireless</p> <p>72 - LBR Terrestrial Fixed Wireless</p> <p><i>This value must align with a technology value provided within the Area GIS file</i></p>
maxdown	Integer	100	The maximum download speed associated with the technology for this point (in Mbps).
maxup	Integer	50	The maximum upload speed associated with the technology for this point (in Mbps).
address_primary	Text	123 Main Street	<p>Address of the deployed location. Should conform to USPS standards if at all feasible.</p> <p><i>Field can be blank if location_id is provided. If location_id is null, this field is required</i></p>
city	Text	Washington	<p>Full name of the city, town, municipality or census designated place where the Project Buildout has been deployed. Should conform to USPS standards if possible.</p> <p><i>Field can be blank if location_id is provided. If location_id is null, this field is required</i></p>
state	String (2)	DC	<p>Two-letter USPS abbreviation identifying the state where the Project Buildout has been deployed.</p> <p><i>Field can be blank if location_id is provided. If location_id is null, this field is required</i></p>
zip_code	String (5)	20002	<p>Five-digit USPS ZIP code where the Project Buildout has been deployed</p> <p><i>Field can be blank if location_id is provided. If location_id is null, this field is required</i></p>
zip_code_suffix	String (4)	1234	<p>Four-digit USPS ZIP+4 code suffix, if applicable</p> <p><i>Value is optional and may be null</i></p>



## B. Projects Defined by a List of Locations

A single file contains a listing of completed end-user buildout locations (by gid from the Project data), along with completion dates.

Location-Based Projects - Buildout Data			
Format: CSV			
All values are required unless otherwise specified			
Field Name	Data Type	Example	Description
project	Text	Project XYZ	Free-text name assigned by the Agency for this Project for public use. Must be unique within the Program and may include information about provider, geography, technology, etc.  <i>This value must correspond to the project name within the Project Location List file</i>
gid	Integer	123	Agency-created unique integer to identify the location (primary key). If the information about the Buildout location (lat/long coordinates or other data) differs from the data included in the Project definition, that needs to be updated in the Project information in order to reflect accurately in the Buildout data.  <i>Value must correspond to the gid within the Project Location List file</i>
technology	Enumerated Integer	50	Last-mile technology used by the Provider to make service available. The values match those used in BDC reporting.  <i>Value must be one of the following codes:</i> 0 - Other 10 - Copper Wire 40 - Coaxial Cable/HFC 50 - Optical Carrier/Fiber to the Premises 60 - Geostationary Satellite 61 - Non-geostationary Satellite 70 - Unlicensed Terrestrial Fixed Wireless 71 - Licensed Terrestrial Fixed Wireless 72 - LBR Terrestrial Fixed Wireless  <i>This value must align with a technology value provided within the Location List file</i>

maxdown	Integer	100	The maximum download speed (in Mbps) for service at this location.
maxup	Integer	50	The maximum upload speed (in Mbps) for service at this location.
ofs_date	Date	2022-06-01	The Open for Sale (OFS) date signifying when the deployed technology is made available to consumers, generally after the deployment date.  <i>Field can be blank if deployed_date is provided</i>
deployed_date	Date	2025-12-31	The date the location was made available for service. This does not necessarily include the installation of the drop, but a location that is reported as deployed must meet the requirements for reporting to the FCC as part of the Broadband Data Collection (i.e., that the unit can be connected within 10 business days without an extraordinary installation fee)

### C. Projects Defined by Middle Mile

A single file contains a listing of completed end-user buildout line segments (by gid from the Project data), along with completion dates.

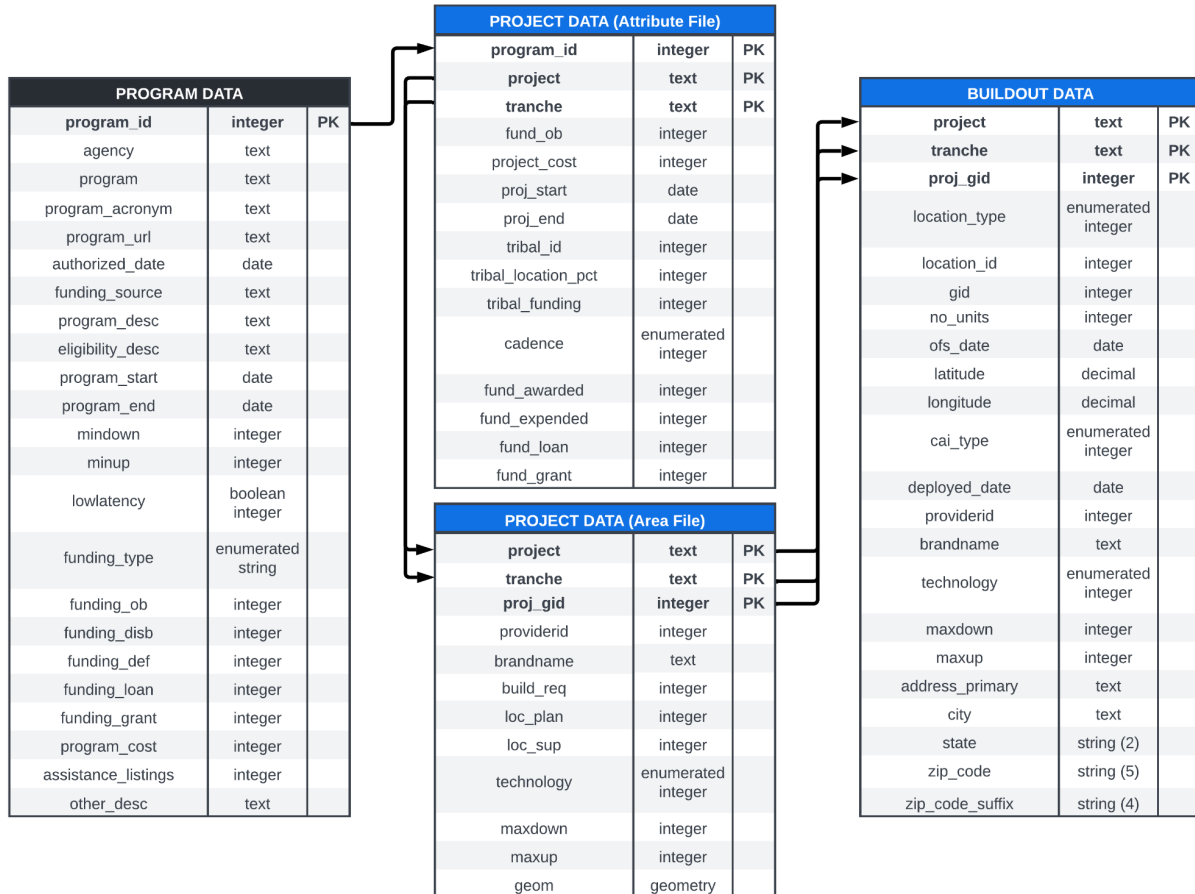
Middle Mile - Buildout Data			
<i>Format: CSV</i>			
All values are required unless otherwise specified			
Field Name	Data Type	Example	Description
project	Text	Project XYZ	Free-text name assigned by the Agency for this Project for public use. Must be unique within the Program and may include information about provider, geography, technology, etc.  <i>This value must correspond to the Project name within the Project Line Segment file</i>
gid	Integer	123	Agency-created unique integer to identify the location (primary key). If the information about the Buildout line segment differs from the data included in the Project definition, that needs to be updated in the Project information in order to reflect accurately in the Buildout data.  <i>Value must correspond to the gid used to describe the line segment for the Project</i>

technology	Enumerated Integer	50	<p>Technology used by the Provider to make service available. These values match those used in BDC reporting.</p> <p><i>Value must be one of the following codes:</i></p> <p><i>50 - Optical Carrier/Fiber to the Premises</i>  <i>70 - Unlicensed Terrestrial Fixed Wireless</i>  <i>71 - Licensed Terrestrial Fixed Wireless</i>  <i>72 - LBR Terrestrial Fixed Wireless</i></p> <p><i>Buildouts within the Project must align with the technology code(s) provided in the Line Segment data file for this Project.</i></p>
downlink	Integer	100	The physical layer downlink speed (in Mbps) the Middle Mile line segment is capable of providing.
uplink	Integer	50	The physical layer uplink speed (in Mbps) the Middle Mile line segment is capable of providing.
completion_date	Date	2023-12-31	The date when the Middle Mile technology is deployed along the relevant line segment

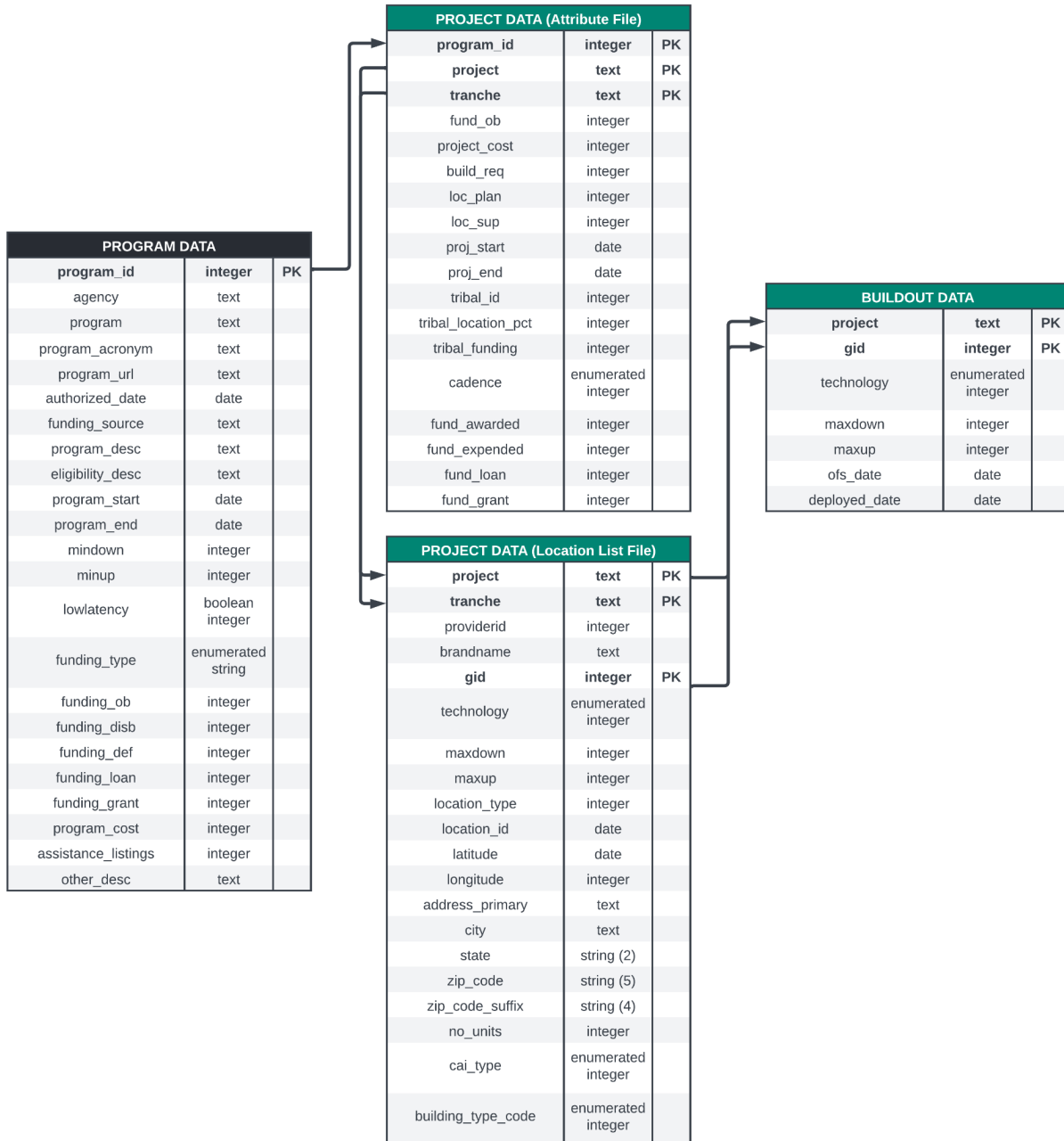
## IV. Data File Relationships

The diagrams below visualize, at a high level, how the data files for Programs, Projects, and Buildout relate to one another.

### *Data file relationships for projects defined by a polygon boundary*



## Data file relationships for projects defined by a list of locations



## Data file relationships for middle mile projects

