http://www.Recovery.gov.

AUTHORITY: Title II, Division A of the American Recovery and Reinvestment Act of 2009,

Public Law No. 111-5, 123 Stat.115 (Feb. 17, 2009); Broadband Data Improvement Act, Title I

of Public Law No. 110-385, 122 Stat. 4096 (Oct. 10, 2008).

Dated: _____

July 2, 2009.

Lawrence E. Strickling

Assistant Secretary for Communications and Information

Appendix A: Technical Appendix

Awardees shall provide the following information to NTIA in the format specified via ftp to **sftp.ntia.doc.gov or CD/DVD** to Edward "Smitty" Smith, Program Director, State Broadband Data Program, National Telecommunications and Information Administration, U.S. Department of Commerce, 1401 Constitution Avenue, N.W. Room 4898, Washington, DC 20230 no later than February 1, 2010. *All data should be accurate as of June 30, 2009, unless otherwise indicated*. Questions about the data content or formats should be addressed to Your Name at broadbandmapping@ntia.doc.gov.

Broadband Service Availability in Provider's Service Area (a) Availability by Service Address-Service Associated with Specific Addresses

For each facilities-based provider of broadband service to specified end-user locations in their state, awardees shall provide NTIA with a list of all addresses at which broadband service is available to end users in the provider's service area, along with the associated service characteristics identified below.

For this purpose, "broadband service" is the provision, on either a commercial or noncommercial basis, of data transmission technology that provides two-way data transmission to and from the Internet with advertised speeds of at least 768 kilobits per second (kbps) downstream **and greater than 200 kbps upstream**_to end users, or providing sufficient capacity in a middle mile project to support the provision of broadband service to end-users within the project area.

4. Community Anchor Institutions

Awardees shall provide NTIA with a list of community anchor institutions in their state, along with the associated information described below.

"Community Anchor Institutions" consist of schools, libraries, medical and healthcare providers, <u>public safety entities</u>, community colleges and other institutions of higher education, and other community support organizations and entities.

The list shall be submitted to NTIA as a tab-delimited text file in which each record has the following format:

Record Format for Community Anchor Institutions			
Field	Description	Туре	Example
Name	Institution Name	Text	John Smith Community Center
Address	Complete address of institution T		1401 Constitution Ave NW Washington DC 20230
Latitude	Latitude in decimal degrees of institution	Float	38.884560
Longitude	Longitude in decimal degrees of institution	Float	-77.028123
Category	Category of institution (see details below for category codes).	Integer	2
Broadband Service?	Does institution subscribe to broadband service at location?	Text	Y
Technology of Transmission	Category of technology used for the provision of broadband service to the institution (see details following Part 1(a) for codes).	Integer	10
Advertised Downstream Service Speed	Speed tier code for the downstream advertised data transfer throughput rate associated with the service that the institution receives (see details following Part 1(a) for codes).	Integer	8
Advertised Upstream Service Speed	Speed tier code for the upstream data transfer throughput rate associated with the service that the institution receives (see details following Part 1(a) for codes).	Integer	8

The category of each Community Anchor Institution should be expressed according to the following reference:

Community Anchor Institution Category Codes		
Category Code	Category	
1	School – K through 12	
2	Library	
3	Medical/healthcare	
4	Public safety	
5	University, college, other post-secondary	
6	Other community support - government	
7	Other community support - nongovernmental	

point (headend) and the Internet, or between a wireless base station and the provider's core network elements that connect to other networks including the internet.

These data shall be submitted to NTIA as a tab-delimited text file in which each record has the following format:

Record Format for Middle-Mile and Internet Backhaul Connection Points Data for Each Provider

Field	Description	Туре	Example
Provider Name	Provider Name	Text	ABC Co.
DBA Name	Doing-business-as name	Text	Superfone, Inc.
FRN	FCC Registration Number	Integer	8402202
Ownership	Is the facility owned (0) or leased (1)?	Integer	0
Serving Facility Capacity	Serving capacity of transport facility (see details below)	Integer	1
Serving Facility Type	Type of transport facility (1=Fiber; 2=Copper; 3=Hybrid Fiber Coax (HFC); 4=Wireless)	Integer	1
Latitude	Latitude in decimal degrees	Float	38.884560
Longitude	Longitude in decimal degrees	Float	-77.028123
Elevation	Elevation relative to grade to the nearest foot (positive integers indicate above grade, negative below grade)	Integer	-10

Connections Record Detail:

1. Instructions for providers needing to obtain a FRN can be accessed at https://fjallfoss.fcc.gov/coresWeb/publicHome.do.

The capacity of the serving facility should represent the capacity as currently configured and be expressed according to the following reference:

Serving Facility Codes		
Data Rate Code	Interconnection Point Data Rate	
1	Multiple T1s and less than 40 mbps	
2	Greater than 40 mbps and less than 150 mbps	
3	Greater than 150 mbps and less than 600 mbps	
4	Greater than or equal to 600 mbps and less than 2.4 gbps	
5	Greater than or equal to 2.4 gbps and less than 10 gbps	
6	Greater than or equal to 10 gbps	

- 2. Coordinates must be expressed using the WGS 1984 geographic coordinate system.
- 3. Data for the entire state or territory should be submitted as a single, tab-delimited plain text file named "middlemile_XX.txt" where XX is the two-letter postal abbreviation for the state or territory.

Latitude	Latitude in decimal degrees of facility	Float	38.884560
Longitude	Longitude in decimal degrees of facility	Float	-77.028123
Elevation	Elevation relative to grade to the nearest foot (positive integers indicate above grade, negative below grade)	Integer	2

Connections to Last-Mile Infrastructure Record Detail:

- 1. Instructions for providers needing to obtain a FRN can be accessed at <u>https://fjallfoss.fcc.gov/coresWeb/publicHome.do</u>.
- 2. The technology of transmission should be entered as an integer based on the coding scheme shown in Part 1(a) above.
- 3. The capacity of the serving facility should represent the capacity as currently configured and be expressed according to the following reference:

Serving Facility Codes		
Data Rate Code	Data Rate	
1	Less than 1.5 mbps	
2	Greater than or equal to 1.5 mbps and less than 3 mbps	
3	Greater than or equal to 3 mbps and less than 6 mbps	
4	Greater than or equal to 6 mbps and less than 10 mbps	
5	Greater than or equal to 10 mbps and less than 25 mbps	
6	Greater than or equal to 25 mbps and less than 50 mbps	
7	Greater than or equal to 50 mbps and less than 100 mbps	
8	Greater than or equal to 100 mbps and less than 1 gbps	
9	Greater than or equal to 1 gbps	

- 4. Coordinates must be expressed using the WGS 1984 geographic coordinate system.
- 5. Data for the entire state or territory should be submitted as a single, tab-delimited plain text file named "lastmile_XX.txt" where XX is the two-letter postal abbreviation for the state or territory.

(b) Middle-mile and Backbone Interconnection Points

In addition to the information shown in the tables above, awardees shall provide NTIA with a list of interconnection points of facilities in their state that provide connectivity between (a) a service provider's network elements (or segments) or (b) between a service provider's network and another provider's network, including the Internet backbone. (Collectively, (a) and (b) are "middle-mile and backbone interconnection points").

Middle-mile and backbone interconnection points typically enable relatively fast data rates, are built to handle substantial capacities, and may be service-quality assured.

Examples might include: points of interconnection enabling communications between an incumbent local exchange carrier central office and the Internet, between a cable aggregation

Awardees shall provide NTIA with a list of the locations of the first points of aggregation in the networks (serving facilities) used by facilities-based providers to provide broadband service to end users.

For this purpose, an "end user" of broadband service is a residential or business party, institution, or state or local government entity that may use broadband service for its own purposes and that does not resell such service to other entities or incorporate such service into retail Internet-access service. Internet Service Providers (ISPs) are not "end users" for this purpose. An entity is a "facilities-based" provider of broadband service connections to end user locations if any of the following conditions are met: (1) it owns the portion of the physical facility that terminates at the end user location; (2) it obtains unbundled network elements (UNEs), special access lines, or other leased facilities that terminate at the end user location and provisions/equips them as broadband; or (3) it provisions/equips a broadband wireless channel to the end user location over licensed or unlicensed spectrum.

"Last-mile" infrastructure consists of facilities used to provide broadband service between enduser (including residences, businesses, community anchor institutions, etc.) equipment and the appropriate access point, router or first significant aggregation point in the broadband network. Examples of such facilities include, among other things: for broadband service provided by incumbent local exchange carriers, connections between end users and the central office or remote terminal; for cable modem service, connections between end users and the cable headend or fiber node; for wireless broadband service, connections between the wireless end-user device or customer premises equipment and the wireless tower or base station; for WiFi broadband service, connections between end users point; or the analogous portion of the facilities of other providers of broadband services. The first points of aggregation in this context are therefore the central office, remote terminal, cable headend, wireless tower or base station, or the like.

For this purpose, "broadband service" is the provision of two-way data transmission with advertised speeds of at least 768 kilobits per second (kbps) downstream and greater than 200 kbps upstream to end users. These data shall be submitted to NTIA as a tab-delimited text file in which each record has the following format:

Record Format for Last-Mile Connection Points Data for Each Provider			
Field	Description	Туре	Example
Provider Name	Provider Name	Text	ABC Co.
DBA Name	"Doing-business-as" name	Text	Superfone, Inc.
FRN	FCC Registration Number	Integer	8402202
Technology of Transmission	Category of technology for the provision of service (see details following Part 1(a) for codes)		10
Serving Facility Backhaul Capacity	Upstream capacity of the serving facility (see details below)	Integer	1
Serving Facility Backhaul Type	Type of upstream transport facility (1=Fiber; 2=Copper; 3=Hybrid Fiber Coax (HFC); 4=Wireless)		1
End-users served	Count of end users served from this point of aggregation	Integer	24

transmission should be entered as an integer based on the coding scheme shown in Part 1(a) above.

- 5. The speed tiers should be entered as integers according to the reference in Part 1(a) above.
- 6. As an example, for June 2009, a provider's ARPU should be calculated by dividing the provider's total monthly residential broadband service revenue for the county by its average monthly residential broadband subscribers.
 - (a). The ARPU entered in the record format above must be the monthly ARPU for June 2009 calculated by dividing (i) total monthly residential broadband service revenue by (ii) average monthly residential broadband subscribers.
 - i. *Numerator*: Total monthly residential broadband service revenue must be calculated as total revenue for the month (monthly data access fees including discounts, overage charges and service or connection fees, but excluding all taxes, fees and surcharges paid to government programs, e.g., E911) attributable to the provision of broadband service to billed residential subscribers in the county for June 2009.
 - ii. *Denominator:* Average monthly residential broadband subscribers must be calculated as the simple average of beginning-of-month and end-of-month counts of billed residential subscribers to broadband service in the county for June 2009.
- 7. A provider's subscriber-weighted nominal speed (in kbps) should be calculated as the sum of the products of the provider's advertised maximum download data transmission rate (in kbps) for each residential rate tier advertised by the provider in the county, times the average monthly number of residential subscribers receiving the advertised download transmission rate tier for the relevant reporting month (i.e., June or December, as applicable), divided by the average total number of residential subscribers for all the included data transmission rate tiers in the county for that month. This is expressed in the following formula:

 $\frac{(\text{speed tier-1 in kbps x no. of tier-1 subscribers}) + (\text{speed tier-2 in kbps x no. of tier-2 subscribers}) + \dots}{\text{total average monthly subscribers}}$

For example, if the service provider offers two tiers of service with advertised maximum download speeds of 1500 kbps and 6000 kbps, calculate the product of 1500 kbps times the average monthly number of residential subscribers to the 1500 kbps speed tier plus the product of 6000 kbps times the average monthly number of residential subscribers to the 6000 kbps speed tier and divide the sum by the sum (or total) of the average monthly number of residential subscribers in both tiers.

8. Data for the entire state or territory should be submitted as a single, tab-delimited plain text file named "pricing_XX.txt" where XX is the two-letter postal abbreviation for the state or territory.

3. Broadband Service Infrastructure in Provider's Service Area

(a) Last-Mile Connection Points

For each broadband service provider in the state, awardees shall provide NTIA with (1) average revenue per end user (ARPU) associated with residential subscribers in the month for which other data is reported (*i.e.*, June or December, as applicable) by county, and (2) subscriber-weighted nominal speed (blended average rate).

For this purpose, a "residential subscriber" of broadband service is any end user assigned to Category 1, in Part 1.(a), above.

For this purpose, "broadband service" is the provision to end users of two-way data transmission to and from the Internet with advertised speeds of at least 768 kilobits per second (kbps) downstream and greater than 200 kbps upstream.

These data shall be submitted to NTIA as a tab-delimited text file in which each record has the following format:

Record Format for Residential Broadband Service Pricing and Sneed

Characteristics by County for Each Provider			
Field	Description	Туре	Example
Record Identifiers			
Provider Name	Provider Name	Text	ABC Co.
DBA Name	"Doing-business-as" name	Text	Superfone, Inc.
FRN	Provider FCC Registration Number	Integer	8402202
County	3-digit County ANSI (FIPS) Code	Integer	560
State	2-digit State ANSI (FIPS) Code	Integer	51
Technology of Transmission	Category of technology used in the provision of service (see details following Part 1(a) for codes)	Integer	2
ARPU, All Advertised Speed Offerings	Average monthly revenue per residential user for the county (see details below for methodology)	Float	34.45
Subscriber-Weighted Nominal Speed	Subscriber-weighted nominal speed (blended average rate in kbps) (see details below for methodology)	Float	2753.3

Service Plan Record Detail:

- 1. Instructions for providers needing to obtain a FRN can be accessed at https://fjallfoss.fcc.gov/coresWeb/publicHome.do.
- 2. Use the set of counties that best approximate each market area of the provider. County ANSI (formerly FIPS) codes may be accessed at http://www.census.gov/geo/www/ansi/ansi.html.
- 3. For each county in the provider's broadband Internet service area, all applicable fields must be populated.
- 4. For reporting the technology of transmission, report the technology used by the portion of the connection that terminates at the end-user location. If different technologies are used in the two directions of information transfer ("downstream" and "upstream"), report the connection in the technology category for the downstream direction. The technology of

Spectrum Used	If technology of transmission is wireless, but the spectrum used to provide service is not listed above, please identify as one of the following: Specialized Mobile Radio Service (SMR) (817-824 MHz; 862-869 MHz; 896-901 MHz; 935-940 MHz), Wireless Communications Service (WCS) spectrum (2305-2320 MHz; 2345-2360 MHz), 3650-3700 MHz, Satellite (L-band, Big LEO, Little LEO, 2 GHz).	Text	SMR
Maximum Advertised Downstream Speed	Speed tier code for the maximum advertised downstream speed available (see details following Part 1(a) for codes)	Integer	8
Maximum Advertised Upstream Speed	Speed tier code for the maximum advertised upstream speed that is offered with the above maximum advertised downstream speed available (see details following Part 1(a) for codes)	Integer	8
Typical Downstream Speed	Speed tier code for the downstream data transfer throughput rate that most subscribers to service at the maximum advertised downstream speed (above) can achieve consistently during expected periods of heavy network usage (see details following Part 1(a) for codes)	Integer	8
Typical Upstream Speed	Speed tier code for the upstream data transfer throughput rate that most subscribers to service at the maximum advertised upstream speed (above) can achieve consistently during expected periods of heavy network usage (see details following Part 1(a) for codes)	Integer	8

Availability Area Shapefile Details:

- 1. Instructions for providers needing to obtain a FRN can be accessed at https://fjallfoss.fcc.gov/coresWeb/publicHome.do.
- 2. All map areas must be closed, non-overlapping polygons with a single, unique identifier.
- 3. Any variation in any of the required fields necessitates the creation of a separate closed, non-overlapping polygon.
- 4. In the area covered by each polygon, subscribers must have broadband service with the speed characteristics shown in the data record 95% of the time to within 50 feet of the polygon's boundary.
- 5. The technology of transmission should be entered as an integer based on the coding scheme shown in Part 1(a) above.
- 6. The speed tiers should be entered as integers according to the reference in Part 1(a) above.
- 7. The data must be expressed using the WGS 1984 geographic coordinate system.
- 8. Maps must be accompanied by metadata or a plain text "readme" file that contains a comprehensive explanation of the methodology employed to generate the map layer including any necessary assumptions and an assessment of the accuracy of the finished product.
- 9. Since ESRI Shapefiles typically consist of 5 to 7 individual files including the associated metadata and geodatabase, data for the entire state or territory should be submitted as a single, zipped file containing all the component files. The file should be named "area_availability_XX.zip" where XX is the two-letter postal abbreviation for the state or territory.

2. Residential Broadband Service Pricing in Provider's Service Area

(a) Average Revenue per End User and Weighted Average Speed

For those facilities-based providers of wireless broadband service that is not address specific (e.g., nomadic, terrestrial mobile wireless, or satellite), awardees may alternatively provide NTIA with GIS-compatible map layers depicting areas in which broadband service is available to end users.

For this purpose, an "end user" of broadband service is a residential or business party, institution, or state or local government entity that may use broadband service for its own purposes and that does not resell such service to other entities or incorporate such service into retail Internet-access service. Internet Service Providers (ISPs) are not "end users" for this purpose. An entity is a "facilities-based" provider of broadband service connections to end user locations if any of the following conditions are met: (1) it owns the portion of the physical facility that terminates at the end user location; (2) it obtains unbundled network elements (UNEs), special access lines, or other leased facilities that terminate at the end user location and provisions/equips them as broadband; or (3) it provisions/equips a broadband wireless channel to the end user location over licensed or unlicensed spectrum.

For this purpose, "broadband service" is "available" at a location if the provider does, or could, within a typical service interval (7 to 10 business days) without an extraordinary commitment of resources, provision two-way data transmission with advertised speeds of at least 768 kilobits per second (kbps) downstream and greater than 200 kbps upstream to end-users at that location. The data shall be submitted to NTIA as an ESRI Shapefile such that the associated data contains the following fields:

Connection with whereas services not riovided to a specific Address			
Field	Description	Туре	Example
Provider Name	Provider Name	Text	ABC Co.
DBA Name	"Doing-business-as" name	Text	Superfone, Inc.
FRN	Provider FCC Registration Number	Integer	8402202
Technology of Transmission	Category of technology for the provision of service (see details following Part $1(a)$ for codes)	Integer	41
Spectrum Used	If technology of transmission is wireless, is Cellular spectrum (824-849 MHz; 862-869) used to provide service (Y/N)?	Text	Y
Spectrum Used	If technology of transmission is wireless, is 700 MHz spectrum (698-758 MHz; 775-788 MHz; 805-806 MHz) used to provide service (Y/N)?	Text	Y
Spectrum Used	If technology of transmission is wireless, is Broadband Personal Communications Services spectrum (1850-1915 MHz; 1930- 1995) used to provide service (Y/N)?	Text	Y
Spectrum Used	If technology of transmission is wireless, is Advanced Wireless Services spectrum (1710-1755 MHz; 2100-2155) used to provide service (Y/N)?	Text	Ν
Spectrum Used	If technology of transmission is wireless, is Broadband Radio Service/Educational Broadband Service spectrum (2496-2690 MHz) used to provide service (Y/N)?	Text	Ν
Spectrum Used	If technology of transmission is wireless, is Unlicensed (including broadcast television "white spaces") spectrum used to provide service (Y/N)?	Text	Ν

Record Format for Availability Area Data for Each Provider – Use Only in Connection with Wireless Services not Provided to a Specific Address

6. For reporting the technology of transmission, report the technology used by the portion of the connection that terminates at the end-user location. If different technologies are used in the two directions of information transfer ("downstream" and "upstream"), report the connection in the technology category for the downstream direction. The technology of transmission should be entered as an integer based on the following reference:

Technology of Transmission Codes		
Technology Code	Description	Details
10	Asymmetric xDSL	
20	Symmetric xDSL	
30	Other Copper Wireline	All copper-wire based technologies other than xDSL (Ethernet over copper and T-1 are examples)
40	Cable Modem – DOCSIS 3.0	
41	Cable Modem – Other	
50	Optical Carrier/Fiber to the End User	Fiber to the home or business end user (does not include "fiber to the curb")
60	Satellite	
70	Terrestrial Fixed Wireless - Unlicensed	
71	Terrestrial Fixed Wireless - Licensed	
80	Terrestrial Mobile Wireless	
90	Electric Power Line	
0	All Other	Any specific technology not listed above

7. Speed tiers should be entered as integers based on the following reference:

Speed Tier Codes			
Upload Speed Tier	Download Speed Tier	Description	
1		Less than or equal to 200 kbps	
2		Greater than 200 kbps and less than 768 kbps	
3	3	Greater than or equal to 768 kbps and less than 1.5 mbps	
4	4	Greater than or equal to 1.5 mbps and less than 3 mbps	
5	5	Greater than or equal to 3 mbps and less than 6 mbps	
6	6	Greater than or equal to 6 mbps and less than 10 mbps	
7	7	Greater than or equal to 10 mbps and less than 25 mbps	
8	8	Greater than or equal to 25 mbps and less than 50 mbps	
9	9	Greater than or equal to 50 mbps and less than 100 mbps	
10	10	Greater than or equal to 100 mbps and less than 1 gbps	
11	11	Greater than or equal to 1 gbps	

8. Data for the entire state or territory should be submitted as a single, tab-delimited plain text file named "address_availability_XX.txt" where XX is the two-letter postal abbreviation for the state or territory.

(b) Availability by Shapefile – Wireless Services not Provided to a Specific Address

End-User ZIP Plus 4	4-digit add-on code (with leading zeros)	Text	0005
Category of End User	Category of End User Served at Address (see details below for codes)	Integer	3
Technology of Transmission	Category of technology available for the provision of service at the address (see details below for codes)	Integer	50
Maximum Advertised Downstream Speed	Speed tier code for the maximum advertised downstream speed available at the address (see details below for codes)	Integer	8
Maximum Advertised Upstream Speed	Speed tier code for the maximum advertised upstream speed that is offered with the above maximum advertised downstream speed available at the address (see details below for codes)	Integer	8
Typical Downstream Speed	Speed tier code for the downstream data transfer throughput rate that most subscribers to service at the maximum advertised downstream speed (above) can achieve consistently during expected periods of heavy network usage (see details below for codes)	Integer	8
Typical Upstream Speed	Speed tier code for the upstream data transfer throughput rate that most subscribers to service at the maximum advertised upstream speed (above) can achieve consistently during expected periods of heavy network usage (see details below for codes)	Integer	8

Address Record Format Details:

- 1. All fields are required.
- 2. Instructions for providers needing to obtain a FRN can be accessed at https://fjallfoss.fcc.gov/coresWeb/publicHome.do.
- 3. The ID field is a sequential integer ranging from 1 to the total number of addresses.
- 4. Address data fields should be space-delimited in standardized Postal Service form. See http://pe.usps.gov/cpim/ftp/pubs/Pub28/pub28.pdf.
- 5. Categories of end users should be entered as integers based on the following reference:

End User Codes					
End User Category Code	End User Category	Description			
1	Residential	Address denotes a residential living unit, individual living unit in institutional settings such as college dormitories and nursing homes and other locations designed primarily for residential use at which broadband service is available.			
2	Governmental	Address denotes a state or local government location at which broadband service is available.			
3	Small Business	Address denotes the location of a small business.			
4	Medium or Large Enterprise	Address denotes the location of a medium or large enterprise.			
5	Other	Address denotes a location not meeting any of the above descriptions.			

For this purpose, an "end user" of broadband service is a residential or business party, institution or state or local government entity that may use broadband service for its own purposes and that does not resell such service to other entities or incorporate such service into retail Internet-access services. Internet Service Providers (ISPs) are not "end users" for this purpose. An entity is a "facilities-based" provider of broadband service connections to end user locations if any of the following conditions are met: (1) it owns the portion of the physical facility that terminates at the end user location; (2) it obtains unbundled network elements (UNEs), special access lines, or other leased facilities that terminate at the end user location and provisions/equips them as broadband; or (3) it provisions/equips a broadband wireless channel to the end user location over licensed or unlicensed spectrum.

For this purpose, "broadband service" is "available" at an address if the provider does, or could, within a typical service interval (7 to 10 business days) without an extraordinary commitment of resources, provision two-way data transmission to and from the Internet with advertised speeds of at least 768 kilobits per second (kbps) downstream and greater than 200 kbps upstream to end-users at that address. The list of addresses shall be submitted to NTIA as a tab-delimited text file in which each record has the following format:

Field	Description	Туре	Example		
Provider Identification Data					
Provider Name	Provider Name	Text	ABC Co.		
DBA Name	"Doing-business-as" name	Text	Superfone, Inc.		
FRN	Provider FCC Registration Number	Integer	8402202		
ID	Sequential record number	Integer	1		
End User location/Service Data					
End-User Address	Complete address	Text	1401 Constitution Ave NW Washington DC 20230		
End-User Building Number	Building number	Text	1401		
End-User Prefix Direction	Prefix direction	Text			
End-User Street	Street name	Text	Constitution		
End-User Street Type	Street type	Text	Avenue		
End-User Suffix Direction	Suffix direction	Text	NW		
End-User City	City	Text	Washington		
End-User State Abbreviation	Two-letter state postal abbreviation	Text	DC		
End-User ZIP Code	5-digit ZIP code (with leading zeros)	Text	20230		

Record Format for Address Data for Each Provider