

## **INSTRUCTIONS FOR WIRELINE BROADBAND SERVICE PROVIDERS**

**Overview:** Our first preference is that broadband providers submit their data in the **wireline file geodatabase provided on the CPUC website**. We certainly understand, however, that many providers do not use GIS in the ordinary course of their business, and thus cannot perform their own geocoding/geomatching or submit data in file geodatabases. Where a provider cannot deliver requested data via file geodatabases, data must be provided in **Excel files**. It is important that these record formats are followed exactly as described as they contain all the necessary information needed to complete the submission.

### **PROVIDERS WITH NO GIS CAPABILITY**

Please provide data in the **Excel files** using the templates provided on the CPUC website, in accordance with the corresponding instructions and record formats.

### **PROVIDERS WITH GIS CAPABILITY**

Please provide data in the **file geodatabase** using the template provided on the CPUC website, in accordance with the corresponding instructions, shapefiles, and record formats.

**File Geodatabase:** The file geodatabase template is comprised of tables containing the relevant fields necessary for complete data submission based on the requirements detailed in the NOFA and subsequent direction from the NTIA. This includes tables for Census Blocks, Road Segments, Middle Mile and Service Overview. In addition, the CPUC has posted shapefiles on its website consisting of 2009 Census data for census blocks 2 square miles or smaller, and road segments for larger blocks. These shapefiles are designed to assist providers in populating their file geodatabases with the necessary geometric data. Providers need to select the geographic areas where their broadband service is available and load the resulting shapefiles into the file geodatabase. Once this is done, providers will fill out the necessary fields within the file Geodatabase that are required for a complete submission. Please contact the CPUC at [broadbandmapping@cpuc.ca.gov](mailto:broadbandmapping@cpuc.ca.gov) for further assistance or clarification regarding the loading of data to the file geodatabase.

**By Census Block ( $\leq 2$  square miles):** If a provider is able to geocode its service availability locations, the provider must submit one record for each census block offered broadband service within its service area, and for each technology type. Using the Census Block shapefile and the record format titled "Service Census Block", providers need to submit the information indicated, including the individual census block that is served, maximum advertised speeds (if you can provide speed information at the block level), and technology information for that block. For census blocks greater than 2 square miles the provider should submit its availability data by Road Segment (see column 'CBSqMi' in the Census Block shapefile).

**By Road Segment (census blocks  $> 2$  square miles):** For those providers able to perform the necessary geoprocessing, the provider may submit availability data for census blocks larger than 2 square miles by road segment in the appropriate record format titled "Service Road Segment". Providers must submit one record for each street segment offered service within its service territory, for each technology type. Please be sure to include the Tiger Line Identification (TLID) number that corresponds to each unique road segment. This information can be found in the Road Segment shapefile posted on our website.

**By Street Address:** Providers unable to perform the geocoding themselves should submit data to us using the record format and associated template titled “Service Address”. We will perform the processing to determine the census blocks and road segments where service is available. Such street address data will not be passed on to the NTIA, only the census block/road segment aggregation, in accordance with our NDA.

**Please note:** While Typical Speed is included in these record formats, it is not required information. If your company has Typical Speed data, we encourage you to include it in your data submission. However, we understand that many providers do not have access to this kind of information.

### **OTHER BROADBAND DATA REQUIRED**

In addition to broadband availability data, broadband providers must also provide other data sets.

**Subscriber-Weighted Nominal Speed:** Broadband providers must report “subscriber-weighted nominal speed” information by county for their entire service area. These data must be included in the file titled “Service Overview” in accordance with the corresponding record format.

**Middle-Mile and Backbone Connection Points:** There has been quite a bit of confusion regarding what exactly is meant by Middle Mile Connection points. Perhaps the best description is contained in the White House document from December 2009 titled Executive Office of the President National Economic Council Recovery Act Investments in Broadband: Leveraging Federal Dollars to Create Jobs and Connect America, a copy of this document is available at our website.

It describes Middle-Mile as follows:

“To get broadband service into homes and businesses, Internet service providers such as telephone, cable, and wireless companies must connect their local networks – known as the ‘last mile’ – to the Internet backbone. The ‘middle mile’ is the critical connection between the Internet backbone and the last-mile local networks. When residents initiate a connection from their home, school or work, the information flows from the last-mile network segment to the middle-mile infrastructure, which then directs the flow of traffic to the backbone network through an interconnection point. An Internet backbone provider then continues the transmission to a distant endpoint.”

Broadband providers must provide a list of connection points where the facilities provide connectivity between a broadband service provider’s “last mile” network and another provider’s network, including the Internet backbone. These data must be submitted via the file titled “Connection Point Middle-Mile.”

In addition to the middle mile information we are asking you to provide answers to 3 key questions regarding middle-mile capacity as reflected in the record format. The answers to these questions will help policymakers pinpoint areas where additional subsidies for middle mile projects are warranted (such as from the California Advanced Services Fund, or from the federal government).

### **Maximum Advertised Downstream Speed and Maximum Advertised Upstream Speed:**

The CPUC asks that you submit Maximum Advertised Downstream and Upstream speeds by census block in the file geodatabase or, when no GIS is available, Excel spreadsheets as discussed above.

However, if reporting maximum advertised speeds by census block is not possible, the NTIA would like these speeds to be reported at the county level for each transmission technology type, in which case you should use the record format titled "Service Overview." For a list of County Codes in California, please use the table in the "Service Overview" record format on our website.