

Table of Contents

<u>General Form 477 Questions</u>	2
<u>Filing Requirements</u>	4
<u>Filing Interface</u>	6
<u>Log In & Main Menu</u>	9
<u>Filer Identification Page</u>	11
<u>Geographic Areas (Census Tracts and Blocks)</u>	14
<u>Uploading Files</u>	17
<u>Fixed Broadband Deployment</u>	19
<u>Fixed Broadband Subscription</u>	23
<u>Fixed Voice Subscription</u>	25
<u>Mobile Broadband and Mobile Voice Deployment</u>	27
<u>Mobile Broadband Subscription</u>	28
<u>Mobile Voice Subscription</u>	29

General Form 477 Questions

Q: What's different about the current Form 477 filing system versus the old system?

A: The current Form 477 filing system incorporates changes to Form 477 adopted by the FCC in June 2013, including the collection of data on broadband deployment and no longer requiring filers to complete separate filings on a state-by-state basis. An overview of the changes can be viewed at <http://www.fcc.gov/encyclopedia/changes-coming-form-477-data-collection>.

Q: How do I file and/or revise Form 477 data prior to June 30, 2014?

A: Form 477 data prior to June 30, 2014 can be filed and/or revised at <https://specialreports.fcc.gov/wcb/Form477/>.

Q: Do I have to submit a new filing even if the data hasn't changed since the last reporting period?

A: Yes, you must create a new filing for each reporting period.

Q: How often can providers update data?

A: Form 477 is due twice a year—to report June 30 data by September 1, and to report December 31 data by the following March 1. A filer may enter the filing interface at any time to make corrections. Section 7.5 of the [Form 477 Instructions](#) explains that filers must revise data when they discover a significant error—for counts, that's a difference amounting to 5 percent or more of the filed number.

Q: How will you handle situations where the accuracy of the data is being questioned? What will be the process to make corrections?

A: *(Revised 6/30/2015)* Typically, the Form 477 team checks reported subscribership data for unusual trends and contacts the filer for clarification. For example, reported data should compare reasonably to similar information reported in the filer's annual reports to shareholders or to the Securities and Exchange Commission (SEC). The Form 477 filing interface remains open to accept corrected data.

Q: Is it correct that I no longer need to file a separate Form 477 for each state since all states are included in one form for the company?

A: Yes. All states may be included in any type of filing (ILEC or Non-ILEC) that you are required to file.

General Form 477 Questions

Q: How do we designate and report Hot Spot usage?

A: Hot spot usage should not be reported on Form 477.

Q: On what should I base the bandwidth / speed information?

A: The bandwidth / speed information reported in Form 477 should be based on advertised speeds, maximum for fixed and minimum for mobile.

Filing Requirements

Q: Who must file Form 477 data?

A: The following four types of entities must file Form 477 data:

- 1) Facilities-based providers of broadband connections to end users,
- 2) Providers of wired or fixed wireless local exchange telephone service,
- 3) Providers of Interconnected Voice over Internet Protocol (VoIP) service, and
- 4) Facilities-based providers of mobile telephony (mobile voice) service.

For more information, view <http://www.fcc.gov/form477/WhoMustFileForm477.pdf>.

Q: Should I file Form 477 even if I don't have any active connections, lines, or subscribers?

A: No. File Form 477 only if you had the specified connections, lines, or subscribers in service on the filing's data-as-of date (June 30 or December 31).

Q: Which sections am I required to complete within the filing system?

A: Facilities-based fixed broadband providers must complete the following sections:

- 1) Filer Identification
- 2) Fixed Broadband Deployment
- 3) Fixed Broadband Subscription

Facilities-based mobile broadband providers must complete the following sections:

- 1) Filer Identification
- 2) Mobile Broadband Deployment
- 3) Mobile Broadband Service Availability
- 4) Mobile Broadband Subscription

Providers of wired or fixed wireless local exchange telephone service and/or providers of Interconnected Voice over Internet Protocol (VoIP) service must complete the following sections:

- 1) Filer Identification
- 2) Fixed Voice Subscription

Facilities-based mobile voice providers must complete the following sections:

- 1) Filer Identification
 - 2) Mobile Voice Deployment
 - 3) Mobile Voice Subscription
-

Filing Requirements

Q: If we do not offer mobile services, then we do not need to do anything with that part of the report, correct?

A: If there is a section of the form that doesn't apply to you, just skip it. For example, you should not go into a section of the form that doesn't apply to you and enter zeros for all questions.

Q: I don't see that Fixed Wireless Broadband providers will have to file going forward. Is that correct?

A: No, that is not correct. Fixed Wireless Broadband providers are required to file Form 477.

Q: If we resell mobile services from a large carrier, then we only need to fill out the Mobile Voice Subscription file, correct?

A: No, that is not correct. If your only business is mobile voice resale ("cellphone service" resale), then you should not file Form 477 at all. Instead, all mobile voice subscribers will be reported by the underlying wireless network providers. In particular, any mobile voice reseller that has filed a Lifeline Compliance Plan, as discussed at <http://www.fcc.gov/encyclopedia/lifeline-compliance-plans-etc-petitions>, should not be reporting its Lifeline Program cellphone subscribers on Form 477. Again, those subscribers will be reported by the underlying wireless network providers.

Q. We are purchasing transport lines, T1 (hardwired lines), from a vendor and reselling them. Do we need to be filing the 477 or is the vendor already doing that?

A: If you are leasing T1 transport and reselling it as T1 transport, you don't report it as "broadband" on Form 477 because it is still transport and it hasn't been turned into an Internet access service connection. But if you lease a T1 that terminates at an end-user premises and you install a DSLAM onto it so that it has been turned into an Internet access service connection (that is, your company has provisioned it for Internet and web access), that makes your company the "facilities-based provider" who is responsible for reporting the end user's in-service Internet access connection on Form 477.

Filing Interface

Q: How do I get to the Form 477 filing system? What is the URL for the interface?

A: The Form 477 filing interface can be accessed online at <https://apps2.fcc.gov/form477/>.

Q: If this is the current system for filing Form 477, then why does the link to the old system still work?

A: The old filing system is still available for filers that wish to submit or revise Form 477 data as of December 31, 2013 or earlier filing periods.

Q: Are there screenshots for the filing interface?

A: Filing Interface Screenshots have been posted to the Form 477 Resources for Filers webpage, <http://www.fcc.gov/form477>, and can be accessed directly at <http://www.fcc.gov/form477/477screenshots.pdf>.

Q: Is there a user manual for the filing interface?

A: A Filing Interface User Guide has been posted to the Form 477 Resources for Filers webpage, <http://www.fcc.gov/form477>, and can be accessed directly at <http://www.fcc.gov/form477/477guide.pdf>.

Q: Do I need to use a specific web browser with the filing system?

A: No, the filing system supports a variety of web browsers, including Chrome, Firefox, Internet Explorer, and Safari. However, for filers using Internet Explorer, you must use version 9 or higher.

Q: Can I submit a Form 477 filing that doesn't contain any data?

A: No, a filing with no data or only zeros cannot be submitted.

Filing Interface

Q: Can I submit a Form 477 filing if I have uploaded files which have errors?

A: No, if you have any upload files which contain errors, they must be removed from the filing system, corrected, and successfully re-uploaded in order for the filing to be submitted.

Q: Should I use commas when entering in numerical data?

A: No, the filing system is set up such that it only allows numbers. A comma is a character, and if you attempt to use commas, it will delete the data you have entered in within a given cell.

Q: How do I enter in broadband speed/bandwidth information?

A: When entering in downstream and upstream speed/bandwidth information, it must be entered in using Mbps and not using kbps or Gbps.

Below are some examples of conversions for kbps and Gbps:

- 256 kbps would be entered in as 0.256 Mbps
 - 768 kbps would be entered in as 0.768 Mbps
 - 1 Gbps would be entered in as 1000 Mbps
-

Q: When entering in broadband bandwidth information, how many digits are allowed after the decimal?

A: Filers can enter in up to 3 digits after the decimal.

Q: Is there a limit as to how many rows of data I can enter within the Interactive Data Entry sections?

A: No. (The site initially had a limit of 100 rows, but that is no longer the case.)

Q: Do rows of data within the Interactive Data Entry sections and upload files need to be unique, or are duplicate records allowed?

A: Rows of data entered in the Interactive Data Entry sections and upload files must be unique. In cases where you have duplicate rows of data, they will need to be aggregated and consolidated into a single unique record. Depending upon the data section you are completing, data will need to be unique either by state, census tract, or census block, and by service offering or service type.

Filing Interface

Q: How long do I have before I am automatically logged out of the filing system?

A: A filer will be logged out of the filing system after 30 minutes of inactivity passes.

Q: Is there a summary page I can print out?

A: *(Revised 6/30/15)* Yes. Once you have submitted your filing, a Submission Confirmation page will appear, from which you can view, save, and print a detailed summary of your filing that provides a section-by-section overview of your data with state-level totals. For now, this more detailed summary is only available at the time your filing is submitted.

In addition, the interface provides a Filing Summary page with an overview of the data files that have been uploaded, or the records that have been entered interactively, for each section of the form. This page can be accessed from the Submission Menu by clicking the grey “Filing Summary” button in the upper right, or from the Main Menu by clicking the “View” button in the Filing Summary column within the Existing Form 477 Submissions list.

Q: Can I make a change to a filing once I’ve submitted it?

A: Yes, you can do this by clicking the “Revise” button in the Revise/Submit column on the Main Menu. The status of the filing will change from “Original - Submitted” to “Revised - In Progress.” To re-submit a revised filing after making changes, click the “Submit as Complete” button on the Submission Menu and the filing status will change to “Revised-Submitted” as long as there are no outstanding errors within the filing.

Q: On the Fixed Broadband Subscription - Interactive Data Entry webpage, I have picked a state and county, but the tract drop-down displays “Select...” versus displaying a list of valid census tracts. How do I fix this?

A. If you are using Internet Explorer as your web browser, hit F12 and click on the "Browser Mode" tab. The default selected uses the "Internet Explorer Compatibility View." Select the latest version of Internet Explorer that is listed, but that does not say Compatibility View. Then, click on the "X" in the upper right hand corner to close the screen. This should resolve this issue. If it does not (and in any case), you can use other web browsers – such as Chrome, Firefox, or Safari – which do not have this issue.

Q: Does the system check for duplicate records?

A. Yes. You will not be able to upload a file successfully if it contains duplicate rows. In addition, you will receive an error message if you enter a duplicate row on an interactive data entry page.

[Log In & Main Menu](#)

Q: What's the format for entering the FRN?

A: Enter the entire 10 digit FRN with no dashes or spaces and be sure to include any leading zeros.

Q: How can I obtain an FRN and password to use to log into the system?

A: New filers can register for a FCC Registration Number (FRN) online at <https://apps.fcc.gov/coresWeb/publicHome.do>.

Q: How do I reset the password associated with my FRN?

A: If you know the current password or the answer to the security question, you can reset your password online at <https://esupport.fcc.gov/password.htm>; otherwise, contact Technical Support at 1-877- 480-3201 and select option 1 from the menu for assistance (Mon-Fri 8:00am-6:00pm ET).

Q: Should I create a new ILEC or a new Non-ILEC filing? How do I know whether I'm an ILEC or not?

A: An ILEC, or incumbent local exchange carrier, is an entity that was providing local exchange telephone service (traditional local phone service) in a particular area on February 8, 1996, the date on which the Telecommunications Act of 1996 was enacted into law. If you are not such an entity, then create a new Non-ILEC filing.

Note: If your company has both ILEC and Non-ILEC operations, information about fixed voice services (local exchange telephone service and interconnected VoIP service) sold outside the filer's ILEC Study Area(s) must go into a separate Non-ILEC filing; however, you can put Non-ILEC broadband or mobile voice information into the ILEC filing if you'd like to.

Q: Can we report the broadband data of our affiliated cable company along with the data on our ILEC report since it also operates in the ILEC service area?

A: Yes.

[Log In & Main Menu](#)

Q: We have two FRNs; one is for CLEC and the other for ILEC. Since the csv contains data for both, do we just use one?

A: First, be sure about the number of separate forms you must submit. If the CLEC provides fixed voice (local exchange telephone and/or interconnected VoIP) service to subscribers with service addresses that lie outside the ILEC Study Area, then that particular information must go into a separate, non-ILEC filing, which would require a separate csv upload. However, assuming that's not the case and you are required to make only one filing, you may use the ILEC's FRN. However, be sure to list both ILEC and CLEC Form 499 Filer IDs in the Filer Identification section of the form.

Filer Identification Page

Q: How do I update the Provider Name field?

A: The Provider Name is automatically populated based on the business entity name associated with the FRN you used to log into the interface. Please update this field as needed.

Q: How do I add my Holding Company/Common Control Name to the drop-down list?

A: If your company's Holding Company/Common Control Name isn't in the drop-down list, you can add it by entering in the name in the blank field to the right of the drop-down list. Once you do this, the name will be added to the Holding Company/Common Control list and you can select it for future filings. Once you have selected the name in a future filing, the system will automatically populate this field for you for future filings.

Q: If multiple ILEC entity data are filed in a single submission, what Provider Name and Holding Company Name should we use on the Filer Identification page?

A: Please use the Holding Company / Common Control Name for the Provider Name (that is, the answers to questions 2 and 3 of the Filer Identification section will be identical). Also, be sure to include all ILECs Study Area Codes and Form 499 Filer IDs. (Furthermore, if these entities have individual websites, those could be noted in the Explanations and Comments section of the form.)

Q: What is an ILEC Study Area?

A: An ILEC study area is the particular area within which an incumbent local exchange carrier was providing local exchange telephone service (traditional local phone service) on February 8, 1996, the date on which the Telecommunications Act of 1996 was enacted into law.

Q: Where can I find out if my company has a Study Area Code (SAC)?

A: Study Area Codes (SACs) can be searched online [here](#). Service providers that are eligible for financial support from the federal Universal Service Fund have SACs. (Eligibility for support is typically determined by the State telecommunications regulators, under procedures set out in the FCC's rules at C.F.R. § 54.201-209). For example, all incumbent local exchange carriers (ILECs) have SACs. However, only a handful of the cable TV system operators that provide fixed voice service are designated "eligible telecommunications carriers" and, therefore, have been assigned SACs.

Q: How do I find my company's study area code(s)?

A: Study Area Codes (SACs) can be searched online at <http://www.usac.org/hc/tools/disbursements/default.aspx>.

Filer Identification Page

Q: What do I do if I get an error message after entering my company's study area code?

A: The study area code may not be valid. Please verify your study area code online at <http://www.usac.org/hc/tools/disbursements/default.aspx>.

Q: What do I enter for Study Area Code (SAC) and Form 499 Filer ID if my company is a Non-ILEC that only provides fixed wireless broadband service?

A: These fields would be left blank in the Filer Identification section of your Non-ILEC filing. (Note: Companies that provide only broadband Internet access service would not have a Form 499 Filer ID.)

Q: Where can I find out if my company has a Form 499 Filer ID?

A: Form 499 Filer ID(s) can be searched online [here](#). Providers of (only) cable TV service and / or broadband Internet access service would not have a Form 499 Filer ID. However—concerning what's relevant directly to the Form 477 filing requirements—each entity that sells local exchange telephone service to end users, or that sells interconnected VoIP service to end users, should have registered with the Universal Service Administrative Company (USAC) and been assigned a Form 499 Filer ID. Information about obtaining a Form 499 Filer ID is available at <http://www.usac.org/cont/about/filer-id/default.aspx>.

Q: How do I find my company's Form 499 Filer ID?

A: Form 499 Filer ID(s) can be searched online at <http://apps.fcc.gov/cgb/form499/499a.cfm>.

Q: What do I do if I get an error message after entering in my company's Form 499 Filer ID?

A: The list of Form 499 Filer IDs used in the Form 477 filing interface is not updated in real-time, so it's possible that your Filer ID was issued after the last update. If this is the case, please enter an older Form 499 Filing ID or the 499 Filer ID of an affiliate, and provide an explanation in the Explanations and Comments section of the form. If you are a Non-ILEC, you can leave this field blank and provide your current 499 Filer ID in the Explanations and Comments section.

Q: What type of person at my company should I list as the Emergency Operations Contact?

A: This should be an individual who can be contacted to provide network status information in a natural disaster or other emergency. Depending on the type of emergency, this individual may also refer FCC staff to the company's relevant local contacts for additional network status information.

Filer Identification Page

Q: Is it possible to list more than one Emergency Operations Contact? What if the person I list is on vacation?

A: The system is designed to accept only one entry as the Emergency Operations Contact and this person's phone number should be one that allows him or her to be reached at any time of day or any location. If you would like to provide an additional, back-up contact, you may enter that person's name and contact information in the Explanations and Comments section of the form.

Q: Do I need to submit a separate certification statement?

A: No, when a particular filing has been officially submitted to the FCC and the filing interface has accepted it, the official (corporate officer, managing partner, or sole proprietor) listed on Filer Identification page is deemed to have certified that submission.

Q: Is there a way to save a partially-completed Filer Identification page and come back to it later?

A: No, unlike other pages in the interface, this page must be completed and you must click "Save & Continue," before you log out (or are automatically logged out) if you want any information entered to be saved. However, once it's been completed and saved, you may return to the page to correct information.

Geographic Areas (Census Tracts and Blocks)

Q: Please clarify what's tract-level data and what's block-level data.

A: The differences are shown in the chart on page # 10 of the 477 Instructions, <http://transition.fcc.gov/form477/477inst.pdf>. In sum:

The only **census block level** data are for **Fixed Broadband Deployment**—that is, where broadband Internet access service is “available.” This information is similar to the information that has appeared in the National Broadband Map developed by the U.S. Department of Commerce/NTIA in cooperation with a designated broadband mapping entity in each state.

The **census tract level** data are for **Fixed Broadband Subscribership** (as has been the case) and now also for **Fixed Voice** (local exchange telephone and interconnected VoIP) **Subscribership**. Additionally, facilities-based mobile broadband providers (that is, the carriers that provide mobile service using their own network facilities and licensed spectrum) will list the census tracts where they advertise service and make it available to subscribers—thereby identifying any areas where they have facilities in place that are only used to serve in-transit subscribers.

Q: Where can I find information on census tracts?

A: (*Updated 9/18/14*) Census tracts are geographic boundaries that can be aggregated to counties (or the statistical equivalent of counties) and are aggregations of census blocks. The entire area of a county is covered by census tracts, just as the entire area of a state is covered by counties and county equivalents. There are approximately 74,000 census tracts covering the entire United States and its territories. Filers must submit all Fixed Broadband Subscription, some Fixed Voice Subscription, and all Mobile Broadband Service Availability data at the census tract level. To learn more about census tracts and tract codes, please visit http://www.fcc.gov/form477/Geo/more_about_census_tracts.pdf. For more information on how to use the Census Bureau's geocoder to find the census tracts of specific addresses, please visit http://transition.fcc.gov/form477/Geo/more_about_census_geocoder.pdf.

Q: How do I find out which census tracts my service addresses are in?

A: (*Updated 9/18/14*) Some tools to match addresses to census tracts are discussed at http://transition.fcc.gov/form477/Geo/more_about_census_tracts.pdf, and information on how to use the Census Bureau's geocoder can be found at http://transition.fcc.gov/form477/Geo/more_about_census_geocoder.pdf. The Commission does not recommend any particular vendors of professional services in this area, but some members of trade associations in which your company participates may have had relevant experience.

Geographic Areas (Census Tracts and Blocks)

Q: Where can I find information on census blocks?

A: (*Updated 9/18/14*) Census blocks are small geographic areas bounded by visible features, such as streets, roads, streams, and railroad tracks, and by nonvisible boundaries, such as selected property lines and city, township, school district, and county limits and short line-of-sight extensions of streets and roads. Census blocks are the smallest unit of geography defined by the Census Bureau, and there are approximately 11 million census blocks covering the entire United States and its territories. Filers must submit Fixed Broadband Deployment data by census block. To learn more about census blocks and census codes, please visit http://www.fcc.gov/form477/Geo/more_about_census_blocks.pdf. For more information on how to use the Census Bureau's geocoder to find the census blocks of specific addresses, please visit http://transition.fcc.gov/form477/Geo/more_about_census_geocoder.pdf.

Q: What should we do if we can't figure out the census blocks associated with some our customer addresses?

A: First, it is not necessary to determine the census blocks associated with your customer addresses in order to generate your Fixed Broadband Deployment data, the only Form 477 data required at the block level. Other ways to determine the census blocks in which you offer service are discussed in the [Fixed Broadband Deployment FAQs](#). If you still wish to figure out the census blocks associated with your customer addresses, more information on how to do this using the Census Bureau's geocoder is available at http://transition.fcc.gov/form477/Geo/more_about_census_geocoder.pdf.

Q: Should water-only census blocks be included in the 477 filing?

A: There is no restriction on including water-only census blocks in your Fixed Broadband Deployment data. If you believe your company's service territory includes water-only blocks, then those blocks should be included in your Fixed Broadband Deployment data.

Q: Should census blocks with zero population be included in the 477 filing?

A: There is no restriction on including census blocks with zero population in your Fixed Broadband Deployment data. If you believe your company's service territory includes blocks with zero population, then those blocks should be included in your Fixed Broadband Deployment data.

Q: Should a census block be included in the Fixed Broadband Deployment data even if there is deployment in only a portion of the block?

A: Yes.

Geographic Areas (Census Tracts and Blocks)

Q: In Fixed Voice Subscription data entry, do you have to record each county that you sell Local Services in or just one for the county that our office is located in?

A: The number of local telephone service connections must be counted for each census tract—and the customers must be matched to the census tract that contains the customer’s service address (not the billing address, if that’s different). (For any “bring your own broadband” interconnected VoIP customers, the address to use is the customer’s Registered Location for E911 purposes.) Some tools to match addresses to census tracts are discussed at http://transition.fcc.gov/form477/Geo/more_about_census_tracts.pdf.

Uploading Files

Q: What is a CSV file?

A: CSV, or comma-separated values, is a file format used to store tabular data in plain-text form.

Q: What is a shapefile?

A: A shapefile is an ESRI (ESRI is a commercial company specializing in Geo-Spatial software, data, and analysis tools) file format that is used in GIS (Geographic Information System) software programs. The contents of a shapefile represent geometric data types such as lines, points, and polygons and their associated attributes. For the current FCC Form 477 submission, polygons are the specific geometric data type required.

Q: The file upload is taking a really long time – is there a problem with my file or is this normal?

A: Upload times for files with a large number of rows (e.g. more than 10,000) can be long, possibly more than an hour. We recommend starting the upload and then moving to another part of the form and returning to the page at a later time. You can also log out without interrupting the processing of upload file(s).

Q: If I start a file upload and then get automatically logged out of the system because of a session timeout, will the upload process continue?

A: Yes.

Q: Can I log out of the system or go to other sections of the form while a file is uploading in one section?

A: Yes. To go to other sections of the form, click on the Submission Menu or Main Menu links in the upper left corner of the interface.

Q: Can I replace a file I already uploaded? If so, how?

A: Yes. To remove a previously-uploaded file, go to the Uploaded Files page of that section of the form and click the “Remove” button next to the file you wish to remove. Then click the “Upload Files” button to go to the File Upload page for that section and upload a new file.

Q: Can I use the Interactive Data Entry option to view and/or modify a CSV file that I uploaded using the File Upload option?

A: No.

Uploading Files

Q: Should I include a header row in my CSV upload file?

A: No, the system will not accept CVS files with a header row. Please remove this from the file before uploading it.

Q: Can I upload a file for each state or region?

A: Yes, you can upload separate data files by state, region, or another geography. However, there must be no duplicate records across your files.

Q: I received an error message when trying to upload – what’s wrong?

A: Some common errors when uploading a file are: (1) the file contains a header row (which it must not); (2) there are duplicate records within the file or across multiple files uploaded in the same section of the form (duplicates must be removed); and (3) an incorrect census block or census tract code was used in one or more records. A list of valid 2010 Census Tracts can be viewed online at <http://www.fcc.gov/form477/Geo/CensusTractData/2010CensusTractList.xls>, and lists of valid, 15-digit census block FIPS codes by state are posted here: <http://www.fcc.gov/encyclopedia/census-blocks-state>.

Please use the file templates for each section of the form as a guide when preparing your data for upload. Even if the data in your file appear to match the format shown in a sample file, ensure that the data type for each field is correct.

Q: Do my csv files need to be named in any special way?

A: No, but the file extensions must be either .csv or .txt, and the file names cannot have more than 100 characters.

Q: Are there any file size limitations for loading shapefile(s) in the filing system?

A: We are not aware of any file size limitations. However, the shapefiles must be zipped, and they must not contain any folders. Technical specifications are discussed at http://transition.fcc.gov/form477/MBD/formatting_mbd.pdf and http://www.fcc.gov/form477/MBD/shapefile_template_mbd.zip.

Fixed Broadband Deployment

Q: How can my company generate its fixed broadband deployment data?

A: (Revised 6/30/2015) See <http://www.fcc.gov/encyclopedia/generating-fixed-broadband-deployment-data-fcc-form-477>.

It is up to each filer to determine its deployment footprint based on the guidance provided in the [Form 477 Instructions](#), the [Fixed Broadband Deployment Terms document](#), and the overview of [Fixed Broadband Deployment Formatting Information](#).

One option is to use GIS/mapping software (ArcMap, MapInfo, and QGIS are examples) to determine the census blocks that are at least partially covered by your company's broadband service footprint or network coverage area. Step-by-step instructions on how to use QGIS – a free, open source mapping program – to determine the census blocks in a service area are available here: http://www.fcc.gov/form477/Geo/finding_census_blocks_in_qgis.pdf.

Another option is to start with the list of blocks for your company published on the June 2014 version of the [National Broadband Map](#) and available for download at <http://www.fcc.gov/encyclopedia/broadband-availability-data-national-broadband-map>.

Q: For Fixed Broadband Deployment, the system requests, for each census block, “DBA Name: Name of the entity customers could contact to purchase service in this block with the characteristics below.” Because of the wholesale model we use, sometimes we ourselves won't offer a given service. How should we proceed in these instances?

A: (Revised 6/30/2015) The fixed broadband deployment data will be used to provide information on areas where broadband Internet access is available to end users. (The term “available” is discussed at http://transition.fcc.gov/form477/FBD/definitions_fbd.pdf.)

If there are blocks in which your company's broadband Internet access service is sold to end users only through a reseller or aggregator, include those blocks in your list of blocks. If there are some blocks in which you only wholesale, some in which you retail & wholesale, or some with just retail, it would help if you would show that parenthetically in the DBA Name field – i.e., in wholesale-only blocks, list the dba as “YourName (wholesale).”

Fixed Broadband Deployment

Q: We own and equip “last mile” connections to homes and business that are used for Internet access service, but independent, 3rd party Internet Service Providers have all the retail contacts (sales, billing, customer support). Who reports what?

A: (*Revised 9/10/14*) In the **Fixed Broadband Subscription** section, you report the broadband connections that are in service—and the 3rd party retail ISP does not report them. In the **Fixed Broadband Deployment** section, you report the area (census blocks) where your connections are available—and the 3rd party retail ISP does not report that information. (The term “available” is discussed at http://transition.fcc.gov/form477/FBD/definitions_fbd.pdf.) In this situation, it would be appropriate to use “YourName (wholesale)” for every entry in the DBA Name field of the fixed broadband deployment upload file. Also, if you have a webpage that explains that your broadband connections are only available through retailer ISPs, it would be helpful if you reported that particular website either in the Filer Identification section of the form or as a note in the Explanations and Comments section.

Q: Please explain the expected accuracy or accepted methods of obtaining the data for the deployment data requirement. For WISPs, accurate deployment data is difficult to obtain and subject to a fair amount of interpretation and analysis.

A: (*Revised 6/30/2015*) Fixed wireless broadband providers should report in their deployment data a list of census blocks where they make broadband service available. More information on the term “available” can be found at http://transition.fcc.gov/form477/FBD/definitions_fbd.pdf and general information on census blocks can be found at http://transition.fcc.gov/form477/Geo/more_about_census_blocks.pdf. It is up to the provider to determine its deployment footprint based on the guidance provided in those documents and in the Form 477 [Instructions](#), but one option would be to use GIS/mapping software (ArcMap, MapInfo, and QGIS are examples) to determine the census blocks that are at least partially covered by the provider's broadband network coverage area, which could be based on a certain radius around the transmitter(s) depending on how a provider generates its coverage maps. Another option would be to start with the list of blocks for that provider, as published on the National Broadband Map and available for download at <http://www.fcc.gov/encyclopedia/broadband-availability-data-national-broadband-map>.

Q: Should we include blocks that we can offer service in and where there is population, but we currently have 0 subscribers?

A: Yes.

Q: Can fixed broadband providers submit a shapefile in lieu of a census block listing of deployment areas?

A: No, uploading shapefiles is not an option for fixed broadband providers, including fixed wireless broadband providers.

Fixed Broadband Deployment

Q: Does “consumer” mean “residential”? Does “non-consumer” mean “business”?

A: For purposes of the form sections related to fixed services, the term “consumer” refers to consumer-grade services that are primarily purchased by, designed for, and/or marketed to residential end users. “Non-consumer” refers to all other services, including those primarily purchased by, designed for, and marketed to business, enterprise, and government customers.

Q: For fixed broadband deployment, should we list one record per technology with the maximum speed?

A: Yes, the file should list one record for each block in which you make Internet access service available with a particular technology, and you should list with the maximum advertised upstream and downstream bandwidths available with that technology in that block, distinguishing between business and residential/mass-market service. If you make service available in a block with two different technologies, include a second row with the same information for the second technology.

Q: For fixed broadband deployment, what should we do if we have legacy subscribers on an older technology that is slower than any service we advertise for the newer versions of that technology?

A: (*Revised 6/30/2015*) If a legacy technology in a particular census block – for example, an older version of asymmetric DSL – can only support speeds that are slower than any service that is currently advertised for that technology, then report the best speed that any legacy subscriber in that census block can reasonably expect to receive over that particular technology. You may find it useful to note that, in the fixed deployment section of Form 477, there are technology codes for several generations of asymmetric DSL service and cable modem service.

Q: For fixed broadband deployment, if we do not advertise service speeds for Internet access, should we enter zero to indicate “no advertised speed”?

A: No. If you do not advertise service speeds, report the best speed that an end user can reasonably expect to receive over that particular technology.

Q: Where can I find the census block information from the National Broadband Map?

A: At this URL: <http://www.fcc.gov/encyclopedia/broadband-availability-data-national-broadband-map>.

Fixed Broadband Deployment

Q: Should holes in wireless coverage areas that result from terrain blocking a signal be included in the deployment data?

A: If a fixed wireless broadband provider has a “hole” in its service territory due to terrain blocking a signal or other factors that would prevent the provider from offering service there, and that “hole” encompasses an entire census block, then that census block should not be included in the Fixed Broadband Deployment data. If the “hole” overlaps only a portion of a census block, and the company can provide service in other portions of the block, then the block should be included in the Fixed Broadband Deployment data.

Q. We are a Non-ILEC and are not building out a specific service area. We just build out to certain customers as we get contracts. How would we complete the Fixed Broadband Deployment section?

A: Report as “deployed” those census blocks where you had a broadband Internet access connection in service to an end-user premises on the data-as-of date for the filing.

Fixed Broadband Subscription

Q: Within the Fixed Broadband Subscription - Interactive Data Entry webpage, I have picked a state and county, but the tract drop-down displays "Select..." versus displaying a list of valid census tracts. How do I fix this?

A: If you are using Internet Explorer as your web browser, hit F12 and click on the "Browser Mode" tab. The default selected uses the "Internet Explorer Compatibility View." Select the latest version of Internet Explorer that is listed, but that does not say Compatibility View. Then, click on the "X" in the upper right hand corner to close the screen. This should resolve this issue. If it does not (and in any case), you can use other web browsers, such as Chrome, Firefox, or Safari which do not have this issue.

Q: We own and equip "last mile" connections to homes and business that are used for Internet access service, but independent, 3rd party Internet Service Providers have all the retail contacts (sales, billing, customer support). Who reports what?

A: (*Revised 9/10/14*) In the **Fixed Broadband Subscription** section, you report the broadband connections that are in service—and the 3rd party retail ISP does not report them. In the **Fixed Broadband Deployment** section, you report the area (census blocks) where your connections are available—and the 3rd party retail ISP does not report that information. (The term "available" is discussed at http://transition.fcc.gov/form477/FBD/definitions_fbd.pdf.) In this situation, it would be appropriate to use "YourName (wholesale)" for every entry in the DBA Name field of the fixed broadband deployment upload file. Also, if you have a webpage that explains that your broadband connections are only available through retailer ISPs, it would be helpful if you reported that particular website either in the Filer Identification section of the form or as a note in the Explanations and Comments section.

Q: We advertise bandwidth sold; however we don't mention the additional bandwidth (3 to 14 Mbps) we provide customers for IPTV in our advertising. Do we include that amount in the broadband subscription information we file?

A: No, do not include additional bandwidth provided exclusively for delivering video programming channels.

Q: Does "consumer" mean "residential"? Does "non-consumer" mean "business"?

A: For purposes of the form sections related to fixed services, the term "consumer" refers to consumer-grade services that are primarily purchased by, designed for, and/or marketed to residential end users. "Non-consumer" refers to all other services, including those primarily purchased by, designed for, and marketed to business, enterprise, and government customers.

Fixed Broadband Subscription

Q: For the Fixed Broadband Subscription data, should we just report the maximum speed per tract and the technology code?

A: No. You must report the number of end-user connections for each technology and each upstream and downstream bandwidth combination in each census tract. More information is available here: http://transition.fcc.gov/form477/FBS/formatting_fbs.pdf.

Fixed Voice Subscription

Q: We are a fixed wireless Internet provider that resells a 3rd party's VoIP service. Do we need to fill out the phone line section?

A: You need to fill out the Fixed Voice Subscription section if you arrange to put your own brand name on the VoIP service. However, if you only tell your Internet customers that their service is capable of supporting VoIP, and they make their own arrangements with the 3rd party VoIP provider, then you would not fill out the Fixed Voice Subscription section.

Q: What is the definition of “interconnected VoIP service”? For example, if we are reselling from a wholesale provider, but do not have our own soft switch or interconnect agreements, must we still file the Fixed Voice Subscription section?

A: Yes, you must file Fixed Voice Subscription information for a “plug and play” VoIP service that you obtain from an underlying telecommunications carrier and sell under your own brand name. For example, one such service is advertised on the underlying carrier's website as a “switchless VoIP” or “cloud” service that empowers VoIP resellers “to offer a quick and easy VoIP solution to their End Users without a capital expense investment.” The Commission's four-element definition of interconnected VoIP service is discussed at http://www.fcc.gov/form477/FVS/definitions_fvs.pdf.

Q: Have landline resellers had to file Form 477 in the past or is this a new requirement?

A: This is not a new requirement. All (irrespective of size) competitive local exchange carriers (CLECs) with end-user customers have been required to file Form 477 since 2005. The [Glossary](#) of the [Form 477 Instructions](#) defines a CLEC as “an entity authorized, by the state regulatory authority (State commission), to provide local exchange telephone service within the Study Areas of one or more incumbent local exchange carriers in that state.” Also, entities that sell Interconnected VoIP service to end-user customers under their own brand name have been required to file Form 477 since 2009.

Q: In Fixed Voice Subscription data entry, do you have to record each county that you sell Local Services in or just one for the county that our office is located in?

A: The number of local telephone service connections must be counted for each census tract—and the customers must be matched to the census tract that contains the customer's service address (not the billing address, if that's different). (For any “bring your own broadband” interconnected VoIP customers, the address to use is the customer's Registered Location for E911 purposes.) Some tools to match addresses to census tracts are discussed at http://transition.fcc.gov/form477/Geo/more_about_census_tracts.pdf.

Fixed Voice Subscription

Q: What does PIC mean in the Local Exchange Telephone state-level data?

A: A subscriber should be reported as PIC when the subscriber is buying “1+” interstate long-distance service from your company or from an affiliate of your company. That is, when the subscriber is buying your service brand. All other subscribers should be reported as No PIC, and this group will include subscribers who buy “1+” interstate long-distance service from an unaffiliated carrier and also subscribers who choose not to have that service at all.

Mobile Broadband and Mobile Voice Deployment

Q: Should overlapping polygons be reported in separate shapefiles?

A: Yes. Shapefiles for mobile broadband deployment must be unique by technology, spectrum, and upstream and downstream speed/bandwidth, while shapefiles for mobile voice must be unique by technology and spectrum band. To the extent a provider has overlapping polygons based on these unique parameters, they should be reported in separate shapefiles. For more information on formatting mobile broadband and mobile voice shapefiles, please visit <http://www.fcc.gov/guides/instructions-filing-form-477>.

Q: If a company has deployed different but overlapping mobile network technologies (e.g., GSM and CDMA) in the same area, should these be reported as different network coverage areas in separate shapefiles?

A: Yes.

Q: Do we have to submit a shapefile even if we don't offer mobile broadband service?

A: If you are a facilities-based provider (not a reseller) of mobile voice service, then you must submit shapefiles of your mobile voice network coverage areas by technology and by spectrum band, regardless of whether you also offer mobile broadband service. More information on how to format your mobile voice deployment shapefiles is available at http://transition.fcc.gov/form477/MVD/formatting_mvd.pdf.

Q: Are there predefined coverage levels for the shapefiles?

A: There is no predefined dBm level associated with the mobile coverage maps. Instead, the coverage areas should reflect where customers can expect to receive service at the reported speeds/bandwidths for the particular technology and spectrum band.

Q: Should holes in wireless coverage areas that result from terrain blocking a signal be included in the deployment data?

A: The polygons representing mobile broadband or mobile voice network coverage should not include areas where terrain blocks a signal or other factors prevent service from being provided in that area.

Q: If you are a reseller of mobile wireless service, are you required to submit shapefiles, or is that the responsibility of the provider whose service you are reselling?

A: Resellers of mobile voice or mobile broadband service should not file Form 477. It is the responsibility of the provider whose service you are reselling to report the deployment and subscribership data related to its resellers.

Mobile Broadband Subscription

Q: How should we determine the upstream and downstream bandwidth / speed associated with our subscribers?

A: If you know the interface technologies (e.g., EV-DO, HSPA+, LTE) built into the devices of your mobile broadband subscribers, then report the number of subscribers in each state by upstream/downstream bandwidth combination based on the advertised speed associated with highest-speed, most advanced technology built into the device. If the speed is advertised as a range, then report the low end of that range. If no upstream or downstream bandwidth is mentioned in marketing, report the minimum upstream and downstream bandwidth that subscribers using that technology should expect to receive.

Mobile Voice Subscription

Q: If we resell mobile services from a large carrier, then we only need to fill out the Mobile Voice Subscription file, correct?

A: No, that is not correct. If your only business is mobile voice resale (“cellphone service” resale), then you should not file Form 477 at all. Instead, all mobile voice subscribers will be reported by the underlying wireless network providers. In particular, any mobile voice reseller that has filed a Lifeline Compliance Plan, as discussed at <http://www.fcc.gov/encyclopedia/lifeline-compliance-plans-etc-petitions>, should not be reporting its Lifeline Program cellphone subscribers on Form 477. Again, those subscribers will be reported by the underlying wireless network providers.
