



**6712-01**

**FEDERAL COMMUNICATIONS COMMISSION**

**47 CFR Part 54**

**[WC Docket Nos. 10-90 and 05-337; DA 12-1777]**

**Data Specifications for Collecting Study Area Boundaries**

**AGENCY:** Federal Communications Commission.

**ACTION:** Final rule.

**SUMMARY:** In this document, the Wireline Competition Bureau (Bureau) adopts data specifications for collecting incumbent local exchange carrier (LEC) study area boundaries. The Bureau will use the maps to analyze costs of LECs and determine which LECs are eligible for support to deliver telecommunications and information services in rural and high cost areas, and to implement certain reforms to universal service support. The data will be used as an essential input in a model that determines the level of high cost support for rate of return carriers. The Bureau will also use the data to determine whether unsubsidized competitors offer service within all or a portion of an incumbent LEC's study area, and to phase out support where unsubsidized competitors offer voice and broadband service throughout an entire study area. Commission intends to allocate support among eligible LECs in a manner that best ensures that consumers in rural and high cost area have services and rates that are reasonably comparable to those in urban areas.

**DATES:** Effective **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, except for the requirements contained in paragraph 16 and Appendix A of document DA 12-1777, which contain new or modified information collection requirements, and require approval by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (PRA), Public Law No. 104-13. These requirements shall become effective after the Commission publishes a separate document in the Federal Register announcing such approval and the relevant effective date(s).

**FOR FURTHER INFORMATION CONTACT:** Chelsea Fallon, Assistant Division Chief, at 202-418-7991, Industry Analysis & Technology Division, Wireline Competition Bureau. For additional information concerning the PRA information collection requirements contained in this document, send an email to [PRA@fcc.gov](mailto:PRA@fcc.gov) or contact Judith B. Herman at 202-418-0214.

#### **SUPPLEMENTARY INFORMATION**

This is a summary of the Bureau's Report and Order (R&O) in WC Docket No. 10-90; WC Docket No. 05-337; DA 12-1777, released on November 6, 2012. The full text of this document is available for public inspection during regular business hours in the FCC Reference Center, Room CY-A257, 445 12th Street, SW, Washington, DC 20554, and may also be purchased from the Commission's copy contractor, BCPI, Inc., Portals II, 445 12th Street SW, Room CY-B402, Washington, DC 20554. Customers may contact BCPI, Inc. via their Web site, <http://www.bcpi.com>, or call 1-800-378-3160. This document is available in alternative formats (computer diskette, large print, audio record, and Braille). Persons with disabilities who need documents in these formats may contact the FCC by e-mail: [FCC504@fcc.gov](mailto:FCC504@fcc.gov) or phone: 202-418-0530 or TTY: 202-418-0432.

#### **Synopsis of Report and Order**

1. In this Report and Order (R&O), the Wireline Competition Bureau (Bureau) adopts data specifications for collecting study area boundaries for purposes of implementing various reforms adopted as part of the USF/ICC Transformation Order, 76 FR 73830, November 29, 2011. In the USF/ICC Transformation Order, the Commission comprehensively reformed universal service funding for high-cost, rural areas, adopting fiscally responsible, accountable, incentive-based policies to preserve and advance voice and broadband service. As discussed below, confirming the relevant geographic boundaries is important for implementing several components of those reforms, including: the Commission's benchmarking rule and the elimination of support where an unsubsidized competitor offers voice and broadband service that

overlaps an incumbent carrier's study area. On June 1, 2012, the Bureau issued the Study Area Boundaries Public Notice, 77 FR 37402, June 21, 2012, which proposed collecting study area and exchange boundary data from all incumbent LECs. Specifically, the Bureau proposed requiring all incumbent LECs to submit study area boundary data in an esri shapefile format with certain identifying feature attributes. The R&O adopts that proposal.

2. Benchmarking Rule. In the USF/ICC Transformation Order, the Commission adopted a benchmarking rule intended to moderate the expenses of rate-of-return carriers with very high costs compared to their similarly situated peers, while encouraging other rate-of-return carriers to advance broadband deployment. On April 25, 2012, the Bureau adopted the methodology for implementing this rule, which establishes limits on recovery of capital costs and operating expenses for high-cost loop support (HCLS). The methodology uses quantile regression analyses to generate a capital expense limit and an operating expense limit for each rate-of-return cost company study area. In the *HCLS Benchmarks Implementation Order*, the Bureau relied on Tele Atlas wire center boundaries as an interim source for study area boundaries. Tele Atlas is a widely-used commercial source of this information. As an interim measure to address expressed concerns that the Tele Atlas boundaries used in the benchmark methodology misstate some rate-of-return study areas, the Bureau provided a streamlined, expedited waiver process for incumbent LECs affected by the HCLS benchmarks to correct errors on an *ad hoc* basis, while obtaining public input on a proposed process to collect new nationwide data on study areas boundaries.

3. In the USF/ICC Transformation Order, the Commission adopted a rule to phase out universal service support where an unsubsidized competitor – or a combination of unsubsidized competitors – offers voice and broadband service throughout 100 percent of an incumbent's study area. In the USF/ICC Transformation FNPRM, 76 FR 78384, December 16, 2011, the Commission sought comment on a process to reduce support where such an unsubsidized

competitor offers voice and broadband service to a substantial majority, but not 100 percent of the study area. Study area boundaries are needed to determine whether unsubsidized competitors offer service within all or a portion of an incumbent's study area.

4. On June 1, 2012, the Bureau issued the Study Area Boundaries Public Notice which proposed collecting study area and exchange boundary data from all incumbent LECs. Specifically, the Bureau proposed requiring all incumbent LECs to submit study area boundary data in an esri shapefile format with certain identifying feature attributes. The Bureau sought comment on this proposal, along with whether to allow states to assist incumbent LECs in submitting boundary data and how to resolve any overlap issues.

#### **Collection and Certification of Study Area Boundaries**

5. Collecting Study Area and Exchange Boundaries. In this R&O, the Bureau requires incumbent LECs to submit esri shapefiles of their study area boundaries, with each submitted shapefile representing a single study area in each state that the incumbent LEC serves. The shapefile for each study area must depict each exchange within the study area as a closed, non-overlapping polygon. Each exchange-area polygon must constitute one record in the shapefile and must contain associated data with certain attributes used to identify the exchange, such as the exchange name and CLLI (Common Language Location Identifier) code. The Bureau will collect study area boundary data at the exchange level so that it can distinguish those exchanges that are subject to "frozen" support levels from those that are not, and so that the data can be updated to reflect any exchanges that have been transferred from one incumbent LEC to another.

6. Collecting Data in ESRI Shapefile Format. The Bureau finds that collecting study area boundary data in an esri shapefile format best balances the need for accurate and timely data with the goal of minimizing burdens on providers. A number of commenters support this approach. The use of a single data format will facilitate the creation of a complete, accurate, uniformly-formatted, publicly-available, and easily-accessible set of study area boundary data.

Having all of the data submitted in a uniform format will enable us to access, analyze, and aggregate the study area boundaries using the same software program, thereby minimizing the delay and inaccuracies associated with analyzing data in inconsistent formats or converting data to a single format.

7. The Bureau finds that the esri shapefile is the best among possible data formats. Since its introduction in the 1990s, the esri shapefile has become the industry standard for storing, depicting, and analyzing spatial data. As a result, there are multiple geographic information system (GIS) platforms capable of creating and managing esri shapefiles, and multiple software programs can convert spatial data stored in other formats (such as MapInfo) to an esri shapefile format. Therefore, incumbent LECs or state entities that maintain spatial data on study area boundaries in another format should be able to convert such data to an esri shapefile format. In addition, there are many GIS specialists and engineering consultants in the United States that are able to provide expertise and develop spatial data for incumbent LECs and state entities without internal GIS resources.

8. Incumbent LECs and states entities are most familiar with the various factors – such as local geography and topography, customer locations, network configuration, and state obligations – that determine individual study area boundaries, and therefore are best suited to undertake the conversion of existing map data to an esri shapefile, because they can identify and immediately correct any errors that might occur in this conversion process. Incumbent LECs that do not already have esri shapefiles of their study area boundaries may either use software and information technology, and/or rely on the expertise of consultants, to develop a shapefile based on the presumably known locations of their physical plant and their customers. Thus, the benefits gained by requiring incumbent LECs to provide and verify esri shapefiles warrant the potential burdens imposed.

9. Incumbent LECs or other entities are not expected to conduct physical surveys in

order to produce the degree of accuracy required by the data specification. Incumbent LECs reasonably can be expected to know where they offer services and thus should be able to create and submit an esri shapefile to the degree of accuracy required based largely on existing information.

10. The Bureau also rejects the argument that the boundary data collection requirements should be shifted to the state commission in cases where the incumbent LEC is unable to reasonably comply. The Bureau encourages states to assist in this endeavor, but recognizes that some state commissions may have limited resources to undertake this responsibility, particularly if there are numerous incumbent LECs within the state

11. State Involvement. State entities to voluntarily submit shapefiles on behalf of any and/or all incumbent LECs within their states. State entities are well situated to assist incumbent LECs with their responsibilities under this R&O. Involvement of state entities that undertake or assist with this data collection effort could reduce the burden on incumbent LECs and on Commission staff, particularly because some states already have digitized service territory boundaries. State entities wishing to submit such data should notify the Commission in writing of their intention to do so and submit that notice to WC Docket No. 10-90 via the Commission's Electronic Comment Filing System (ECFS). The Bureau will release a Public Notice identifying the deadlines for these notices (as well as the deadlines for the shapefile submissions and incumbent LEC certifications).

12. Ultimately, however, the incumbent LECs are responsible for reviewing, verifying, and certifying that the study area boundary data are accurate and for ensuring that the ongoing obligations, such as updating of information, are satisfied. Accordingly, in cases where a state entity uploads data to the Commission-sponsored website on behalf of one or more incumbent LECs, each incumbent LEC whose data are submitted by the state must log into the website to review the shapefile. If the incumbent LEC has a reasonable basis to conclude the shapefile is

correct, the incumbent LEC can certify and submit the data using the same web interface. The reporting obligation set forth in this R&O ultimately rests with incumbent LECs; state commissions may not certify as to the accuracy of the data on behalf of incumbent LECs. If the incumbent LEC cannot certify that the data submitted by the state commission are correct, the incumbent LEC must so notify the Bureau and upload corrected data, either on its own or in conjunction with the state entity that filed it. The incumbent LEC can then certify that the study area boundary data are accurate.

13. Incumbent LEC Certification. After reviewing and, if necessary, correcting the study area boundary data submitted by itself or a state entity, each incumbent LEC must certify the accuracy of the data. An official of the firm, such as a corporate officer, managing partner, or sole proprietor, must provide an electronic signature certifying that he or she has examined the study area boundary shapefile and that, to the best of his or her knowledge, information, and belief, the data contained in the shapefile are accurate and correct. The certifying official may be different from the GIS specialist or other individual who developed the study area boundary shapefile, and the web interface will allow filers to enter contact information for both the certifying official and the individual most knowledgeable about the spatial data.

14. Data Reconciliation. Once the shapefiles have been submitted and certified, the Bureau will review the study area boundaries and resolve any voids and overlaps. Overlap areas would be those shown to be served by more than one incumbent LEC, while void areas would be those shown to be served by no incumbent LEC. The Bureau will attempt to distinguish unpopulated void areas from populated void areas that are likely to be served by some incumbent LEC, in which case an error in the submitted data may need to be resolved. The Bureau may also seek help from state commissions to resolve gaps, voids, and overlap issues. During review, if boundary overlaps or void areas are found in the submitted boundary data, the Bureau will contact the filer(s) to resolve such issues. Once these issues are resolved, the

Bureau will ask incumbent LECs to recertify the new, corrected boundaries. When a complete set of the reconciled boundaries has been compiled the study area boundary data will be published.

#### **Non-Filers**

15. The Bureau will contact, either directly or via a state entity, any incumbent LEC that does not submit study area boundary data in the format requested by the required date and request that the incumbent LEC submit the required shapefiles within 30 days. The Bureau will also contact any incumbent LEC that has not certified the accuracy of the required study area data, whether filed by the incumbent LEC itself or by another party, and request that the incumbent LEC certify the data, or submit corrected data, within 30 days. Compliance with the rules adopted in this R&O is mandatory, and failure to comply may lead to enforcement action, including forfeiture penalties, pursuant to the Communications Act and other applicable law.

#### **Mandatory Updating and Recertification of Study Area Boundaries**

16. It is critical to our universal service reform implementation efforts to ensure that the boundary area data do not become out-of-date. Therefore, incumbent LECs must provide updated data when their study area boundaries change. Study area boundaries can change as the result of a transaction involving the addition or sale of exchanges; new deployment into previously-unserved areas, such as a new housing subdivision; or an incumbent LEC relinquishing its ETC designation and no longer being obligated to serve an area as a carrier of last resort. Incumbent LECs and/or state entities must submit updated data by March 15 of each year, beginning the year following the initial data submissions, showing any changes made by December 31 of the previous year. The incumbent LEC is responsible for making any necessary changes and for filing the revised shapefile. The changes cannot be made using the web interface itself; incumbent LECs will need to modify the shapefile. However, incumbent LECs can upload a revised shapefile to the same website used for the original filing. In addition, all



incumbent LECs must recertify their study area boundary data every two years. Filers will need to examine, through the web interface described below, the boundary data previously submitted, and then either certify that they are correct or submit revised data.

### **Filing Procedures**

17. Once OMB has completed its review of the study area boundary data collection requirements adopted today, the Bureau will issue a Public Notice providing detailed instructions and announcing the deadline for the submission of data. Each incumbent LEC or submitting state entity will need to log into the web interface, at the announced website URL, to upload the data. After logging in, the submitting entity will provide contact information for the individual most knowledgeable about the study area boundary data, in case questions about the submitted data arise. After completing the contact information, the incumbent LEC or state entity will upload a single zip file containing the required files per Appendix A. Once the zip file has been uploaded, the web interface will display a map of the submitted data on the filer's screen, allowing the filer to review the map and associated data for accuracy and completeness before certifying and submitting it. In cases where a state entity has uploaded data on behalf of an incumbent LEC(s), each incumbent LEC will be required to log in to the filing system separately to review and certify that the data are correct prior to submitting them. A corporate officer of an incumbent LEC will need to provide contact information and certify under penalty of perjury that he or she has examined the study area boundary shapefile and that – to the best of his or her knowledge, information, and belief – the data contained in the shapefile are accurate and correct. If the data need to be revised, the incumbent LEC or state entity will have to correct the data before the incumbent LEC certifies and submits them.

### **Congressional Review Act**

18. The Commission will send a copy of this R&O in a report to be sent to Congress and the Government Accountability Office, pursuant to the Congressional Review Act.

## **Paperwork Reduction Act**

19. This R&O contains new information collection requirements subject to the PRA. It will be submitted to OMB for review under section 3507(d) of the PRA. OMB, the general public, and other Federal agencies are invited to comment on the new information collection requirements contained in this proceeding

## **Ordering Clauses**

1. Pursuant to sections 1, 2, 4(i), 201-205, 218-220, 254, 256, 303(r), and 403 of the Communications Act of 1934, as amended, 47 U.S.C. 151, 152, 154(i), 201-205, 218-220, 254, 303(r), and 403, and §§ 0.91, 0.201(d), 0.291, and 1.427 of the Commission's rules, 47 CFR 0.91, 0.201(d), 0.291, 1.427, and pursuant to the delegations of authority in paragraphs 157, 184, 187, 192, 217 of the USF/ICC Transformation Order, document DA 12-1777 IS ADOPTED.

2. Document DA 12-1777 SHALL BE EFFECTIVE thirty (30) days after publication in the Federal Register, except for the requirements contained in paragraph 16 and Appendix A, which are subject to the PRA. These requirements include new or modified information collection requirements that require approval by OMB under the PRA, and SHALL BECOME EFFECTIVE after the Commission publishes a document in the Federal Register announcing such approval and the relevant effective date(s).

3. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of document DA 12-1777, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

4. The Commission SHALL SEND a copy of document DA 12-1777 to Congress and the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. 801(a)(1)(A).

FEDERAL COMMUNICATIONS COMMISSION.

Julie A. Veach,

Chief, Wireline Competition Bureau.

### **Appendix A -- Specification for Study Area Boundary Submission**

1. General. Incumbent local exchange carriers (LECs) must submit study area and exchange boundaries. For the purposes of this collection, boundary does not refer to an architectural or engineering drawing, meets and bounds descriptions or other surveyed body of work. Boundary does refer to the general extent of the incumbent LEC's exchange which can be identified on a base map scale of 1:24,000. Boundaries must be submitted in esri compatible shapefile format such that each shapefile represents a single study area. The shapefile must contain one data record for each exchange that constitutes the study area. Each exchange should be represented as a closed, non-overlapping polygon with the associated feature attributes described below. Uploaded boundaries must be accompanied by metadata or a plain text "readme" file containing the information listed below. When submitting the study area boundaries, an officer of the LEC must certify under penalty of perjury that the information accurately portrays the LEC's study area to the best of his/her knowledge.

2. Since shapefiles typically consist of 3 to 9 individual files, the shapefile for the study area should be submitted as a single, zipped file containing all the component files. The shapefile and encapsulating zip file names must contain the company name and the 6-digit study area code. Shapefile templates are available at <http://transition.fcc.gov/wcb/iatd/neca.html>.

Note that submitted boundaries are public data and may be used in published FCC documents and webpages.

3. Shapefile. A shapefile template is available at

<http://transition.fcc.gov/wcb/iatd/neca.html>. Submitted shapefiles must:

- A. contain one closed, non-overlapping polygon for each exchange in the study area that represents the area served from that exchange
- B. have associated with each exchange polygon the following identifying feature attributes:
  - 1. OCN – NECA-assigned operating company number as in the LERG
  - 2. Company Name
  - 3. Exchange Name
  - 4. Acquired Exchange subject to § 54.305 of the Commission’s rules
  - 5. CLLI Code(s) associated with the exchange
  - 6. Study Area Code
  - 7. State
  - 8. FRN (please use the FRN used for the 477 filing in the state)
- C. have an assigned projection w/accompanying .prj file
- D. use unprojected (geographic) WGS84 geographic coordinate system
- E. have a minimum horizontal accuracy of +/- 40 feet or less, conforming to 1:24K national mapping standards
- F. be submitted as a WinZip archive with a name containing the company name and study area code (e.g., CompanyName\_123456.zip).

4. Cover Page Information. In addition to the shapefile data described above, the

Bureau also will collect electronically the following information:

- A. Contact person name
- B. Contact person address
- C. Contact person phone number
- D. Contact person email address

- E. Date created/revised
- F. Methodology – process steps to create the data
- G. Certifying official name
- H. Certifying official address
- I. Certifying official phone number
- J. Certifying official email address

FEDERAL COMMUNICATIONS COMMISSION.

Julie A. Veach,  
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