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FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 1, 43, and 54

[WC Docket Nos. 11-10 and 19-195, FCC No. 19-79]

Establishing the Digital Opportunity Data Collection and Modernizing the FCC Form 477 Data Program

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: In this document, the Federal Communications Commission (Commission) adopts the Digital Opportunity Data Collection, which requires all fixed broadband providers to submit granular maps of the areas where they have broadband-capable networks and make service available. To complement this granular broadband availability data, the Report and Order also adopts a process to begin collecting public input, sometimes known as "crowdsourcing," on the accuracy of fixed providers' broadband deployment data. In addition, the Report and Order leaves in place for now the existing Form 477 data collection, but makes targeted changes to reduce reporting burdens for all providers by removing and clarifying certain requirements and modifying the collection.

DATES: Effective **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, except for paragraphs 44 through 51 and 57 through 65 of the Report and Order and the addition of 47 CFR 54.1401 and 54.1402(b) and (c), (d)(2), and (e), which are delayed. The Commission will publish a document in the *Federal Register* announcing the delayed effective date

FOR FURTHER INFORMATION CONTACT: Wireline Competition Bureau, Kirk Burgee, at (202) 418-1599, Kirk.Burgee@fcc.gov, or, Wireless Telecommunications Bureau, Garnet Hanly, at (202) 418-0995, Garnet.Hanly@fcc.gov. For additional information concerning the Paperwork Reduction Act information collection requirements contained in this document, send an e-mail to *PRA@fcc.gov* or contact Nicole Ongele at (202) 418–2991.

SUPPLEMENTARY INFORMATION: This is a summary of the *Report and Order* as part of the Commission's *Report and Order and Second Further Notice of Proposed Rulemaking* in WC Docket Nos. 11-10 and 19-195, FCC 19-79, adopted August 1, 2019 and released August 6, 2019. The full text of this document is available for public inspection during regular business hours in the FCC Reference Information Center, Portals II, 445 12th Street SW, Room CY–A257, Washington, DC 20554. It also is available on the Commission's website at https://www.fcc.gov/document/fcc-improves-broadband-mapping-0. This document contains new and modified information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, will invite the general public to comment on the information collection requirements contained herein as required by the Paperwork Reduction Act of 1995, Public Law 104-13. The effective date for paragraphs 44 through 51 and 57 through 65 of the Report and Order and the addition of 47 CFR 54.1401 and 54.1402(b) and (c), (d)(2), and (e), will be effective 30 days after the announcement in the *Federal Register* of Office of Management and Budget (OMB) approval of information collection requirements modified in the Report and Order and the effective date for the CFR additions.

Synopsis

I. INTRODUCTION

1. Accurate broadband deployment data is critical to the Commission's efforts to bridge the digital divide. Effectively targeting federal and state spending efforts to bring broadband to those

areas most in need of it means understanding where broadband is available and where it is not. The census-block level fixed broadband service availability reporting the Commission currently requires has been an effective tool for helping the Commission target universal service support to the least-served areas of the country, but has made it difficult for the Commission to direct funding to the "gaps" in broadband coverage—those areas where some, but not all, homes and businesses have access to modern communications services.

2. We therefore initiate a new data collection, the Digital Opportunity Data Collection, that is distinct from the existing Form 477 collection and that will gather geospatial broadband service availability data specifically targeted toward advancing our universal service goals. Pursuant to the Digital Opportunity Data Collection, we require all broadband service providers to submit granular maps of the areas where they have broadband-capable networks and make service available. Given the Commission's ongoing investigation into the coverage maps of one or more major mobile operators, we limit the new data collection obligations to fixed broadband providers at present and seek comment on how best to incorporate mobile wireless coverage data into the Digital Opportunity Data Collection.

3. Service providers—who are uniquely situated to know where their own networks are deployed—must determine in the first instance the availability of broadband in their service areas, taking into account their individual circumstances and their on-the-ground knowledge and experience. At the same time, to complement this granular broadband availability data, we adopt a process to begin collecting public input, sometimes known as "crowdsourcing," on the accuracy of service providers' broadband deployment data. Through this new tool, State, local, and Tribal governmental entities and members of the public will be able to submit fixed broadband availability data, leveraging their experience concerning service availability. In addition, because we leave in place for now the existing Form 477 data collection, we make targeted changes to reduce reporting burdens for all providers by removing and clarifying certain requirements and modifying the collection.

II. BACKGROUND

5. First established in 2000, the Commission's Form 477 began as a collection of subscription and connection data for local telephone and broadband services that helped the Commission to, among other things, meet statutory annual reporting obligations and monitor local voice competition. Over time, the Form 477 data collection has evolved into the primary data source for many Commission actions, including reporting to Congress and the public about the availability of broadband services, informing transaction reviews, and supporting our universal service policies. At the same time, it has become increasingly clear that the fixed and mobile broadband deployment data collected on the Form 477 are not sufficient to understanding where universal service support should be targeted and supporting the imperative of our broadband-deployment policy goals.

6. For purposes of broadband deployment reporting, the Commission currently requires fixed providers to report the census blocks in which their broadband service is available. Fixed broadband connections are available in a census block "if the provider does, or could, within a service interval that is typical for that kind of connection—that is, without an extraordinary commitment of resources—provision two-way data transmission to and from the Internet with *advertised* speeds exceeding 200 kbps in at least one direction to *end-user premises* in the census block." However, census-block based fixed deployment data have limitations—providers report whether or not fixed broadband service is available in at least some part of each census block, but not whether there is availability at all areas within a block.

7. Providers of fixed voice and broadband service report on their end-user subscriptions by submitting the total number of connections in each census tract in which they provide service. Providers of mobile voice and broadband service report their total subscribers for each state in which they provide service to customers. Facilities-based providers of mobile broadband service report on

deployment by submitting, for each technology and frequency band employed, polygons in geographic information system (GIS) mapping files that digitally represent the geographic areas in which a customer could expect to receive the minimum speed the service provider advertises for that area. In addition, mobile service providers must report the census tracts in which their service is advertised and available to potential customers.

8. In establishing the Form 477 as its primary vehicle for collecting information about the deployment of broadband services, the Commission predicted that the data from the Form 477 would "materially improve" its ability to develop, evaluate, and revise broadband policy, as well as provide valuable benchmarks for Congress, the Commission, other policymakers, and consumers. In its comments in this proceeding, the National Telecommunications and Information Administration (NTIA) states that its analysts "routinely refer to the Commission's Form 477 data, including both deployment and subscription data, to help inform policymakers and enhance [its] technical support of broadband infrastructure investment." The Commission has used aggregate broadband data reported by providers on Form 477 to, among other things: (1) meet our statutory obligation to annually report on the state of broadband availability; (2) update our universal service policies and monitor whether our universal service goals are being achieved in a cost-effective manner; (3) meet our public safety obligations; and (4) maintain coverage maps to inform stakeholders, including industry and the public.

9. In an effort to collect and develop better quality, more useful, and more granular broadband deployment data, the Commission adopted the *2017 Data Collection Improvement FNPRM* in August 2017. In the *2017 Data Collection Improvement FNPRM*, the Commission sought comment on: (1) ways in which the Commission might increase the quality and accuracy of the broadband information we collect; and (2) ways in which the Commission might streamline its broadband reporting requirements and thereby reduce the burdens on filers. The Commission also noted that one of its primary objectives is to ensure that the data collected will be closely aligned with the uses to which they

will be put, and sought comment on those uses to inform our analysis. In response, we received a voluminous amount of comments, reply comments, and ex parte presentations with specific recommendations on how best to improve our broadband reporting process.

III. REPORT AND ORDER

10. As the record in this proceeding amply demonstrates, there is a compelling and immediate need to develop granular, high-quality fixed broadband deployment data to improve our ability to target support from our Universal Service Fund (USF) programs. It has become increasingly clear that the fixed and mobile broadband deployment data collected on the Form 477 are not sufficient to support the specific imperative of our USF policy goals. We conclude that in order to continue to advance our statutory universal service obligations, it is necessary to create a new data collection, calculated to produce broadband deployment maps that will allow the Commission to precisely target scarce universal service dollars to where broadband service is lacking. In the *2017 Data Collection Improvement FNPRM*, the Commission sought comment on requiring more granularity in fixed broadband deployment data, noting that it collected location-level data from recipients of USF funding to assess whether they are meeting their buildout requirements, and that this more granular data had been "extremely useful" in understanding issues surrounding fixed broadband deployment in these contexts. We find that establishing a new collection requiring fixed providers to submit maps of the areas in which their service is available is the best way to meet those needs expeditiously.

11. We therefore direct the Universal Service Administrative Company (USAC), under the oversight of the Commission's Office of Economics and Analytics (OEA), the Wireline Competition Bureau (WCB), Wireless Telecommunications Bureau (WTB), and the International Bureau (IB), to develop a new portal to accept broadband coverage maps (polygons) from fixed providers, as well as public feedback on the accuracy of these broadband maps. For the time being, we leave the current

Form 477 in place, subject to several modifications that eliminate collection of unnecessary data, and seek comment on whether we should sunset some or all of the Form 477 deployment collection. We believe the Form 477 deployment data will continue to be a useful reference point for its existing purposes as well as in relation to the new Digital Opportunity Data Collection. Accordingly, we generally preserve the Form 477 instructions for submitting fixed broadband deployment data, except as may be required to implement the streamlining and other changes set forth below.

A. Establishing Granular Maps of Fixed Broadband Service Availability

12. We require all fixed providers to submit broadband coverage polygons depicting the areas where they actually have broadband-capable networks and make fixed broadband service available to end-user locations. The filings must reflect the maximum download and upload speeds actually made available in each area, the technology used to provide the service, and a differentiation between residential-only, business-only, or residential-and-business broadband services. Fixed providers in the new collection must submit a broadband coverage polygon for each combination of download speed, upload speed, and technology. Where fixed providers offer different maximum speeds to residential and business customers, even if using the same network facilities, they must file separate polygons. Where the offered speed varies by location or distance from network facilities, fixed providers must submit separate polygons to reflect those differing maximum offered speeds.

13. For purposes of the Digital Opportunity Data Collection, service is actually available in an area if the reporting fixed provider has a current broadband connection or it could provide such a connection within ten business days of a customer request, without an extraordinary commitment of resources, and without construction charges or fees exceeding an ordinary service activation fee. The filer must be able to establish a connection within this timeframe to every end-user location contained in the reported broadband coverage polygon. Under this standard, a fixed provider must have fiber or

cable in place proximate, if not connected, to the locations within its reported polygons—for example, we expect a residence would be included only if the utility pole or conduit on the right of way adjacent to the residence is already wired and awaiting just a drop cable; additional buildout of the network would represent an extraordinary commitment of resources. A fixed wireless provider must have already installed enough base stations to cover and meet reasonably anticipated customer capacity demands; the installation of an additional base station, for example, would constitute an extraordinary commitment of resources. Fixed broadband services are not actually available for purposes of the Digital Opportunity Data Collection in any area where the filer does not meet this standard.

14. Although we agree with commenters that it would be ideal for providers to have more precise technical standards to follow in determining whether fixed broadband is available in an area (for example, defining availability based on specific proximity to network facilities), we find insufficient evidence currently in the record to prescribe such technical standards. Without additional information, we risk setting under- and over-inclusive technical standards, likely to result in the drawing of less accurate maps. We therefore seek comment in the *Second Further Notice of Proposed Rulemaking* (*Second FNPRM*) in this item about what standards fixed providers should use to establish the broadband coverage polygons.

15. We direct OEA to oversee USAC in developing the new online portal and the filing processes that will enable fixed providers to submit broadband coverage polygons. We also direct OEA, in consultation with WCB, IB, WTB, and USAC, to carry out the implementation details of the new collection including (but not limited to): (1) publishing complete instructions for filing data and issuing an order, based on the record received in response to the *Second FNPRM*, that designates the precise specifications for the broadband coverage polygons, subject to the constraints laid out herein; (2) modifying (as needed) the list of fixed-broadband technologies that should be reported in the new

collection; and (3) defining the GIS compatible file format(s) in which fixed providers will be required to submit their polygons, taking into account any potential burdens on filers.

16. This new data collection will take effect after the release of the order designating the specifications for the coverage polygons, and after OEA issues a public notice announcing the availability of the new collection platform and the reporting deadlines. Fixed broadband service providers must file initial service availability reports within six months of the public notice announcing availability of the new collection platform. Fixed providers also must submit updates within six months of completing new broadband deployments; making changes to (including upgrading or discontinuing) existing offerings; or otherwise acquiring new, or selling existing, broadband-capable network facilities that affect the data submitted on their Digital Opportunity Data Collection filings. Service providers that become subject to filing requirements subsequent to the initial filing deadline must file initial service availability reports within six months of becoming so obligated and must report data from that initial period. Failure to timely file the new collection data may lead to enforcement action and/or penalties as set forth in the Communications Act and other applicable laws. In addition, fixed providers must revise their filings any time they discover a significant reporting error in the original broadband deployment data that they submit. An appropriate official of each filer must include with any filing a certification that the filer's service availability data is true and accurate to the best of the certifying official's knowledge and must report the title of the certifying official. Filers must additionally certify on or before June 30 of each calendar year that as of December 31 of the previous year, all of the filer's service availability data continues to be accurate, taking into account the filer's data that has been updated during the calendar year.

17. In order to ensure an accurate and detailed picture of broadband deployment, we require all fixed providers to make the required Digital Opportunity Data Collection filings, although we direct WCB, in coordination with OEA, WTB, and IB, to determine whether any category of very small

fixed providers (e.g., those with less than 250 subscribers and who are not eligible telecommunications carriers (ETCs) under the USF program) should have additional time in filing their initial reports. We note that any service provider must nevertheless timely file in order to be eligible to participate in any USF program and those that fail to file in a timely manner risk their service areas being deemed unserved in future USF decisions.

18. *Incorporating Public Input into Broadband Coverage Maps.* Collecting broadband coverage polygons will allow fixed providers to apply their expertise concerning their networks and service areas to define their service coverages in the first instance. However, input from the people who live and work in the areas that a service provider purports to serve also plays a vital role in ensuring the quality of these maps, helping to identify areas where the data submitted do not align with the reality on the ground. We therefore direct OEA to work with USAC to create an online portal for local, state, and Tribal governmental entities and members of the public to review and dispute the broadband coverage polygons filed by fixed providers under the new collection. This input will identify locations where a member of the public or a governmental entity indicates that the fixed provider is not able to provision broadband service despite the location being within a broadband coverage polygon. We also seek comment in the *Second FNPRM* about the types of data to be collected through this portal, how to treat crowdsourced data, and the procedures that fixed providers should follow if their broadband coverage polygons are disputed.

19. We believe that public input on fixed broadband service coverage will be most effective if some types of data collected in this process are routinely made available to the public. We therefore direct USAC to make public the information about the location that is the subject of the dispute — including the street address and/or coordinates (latitude and longitude) provided by the complainant, along with the name of the service provider(s) and any relevant details concerning the basis for challenging the reported fixed broadband coverage.

20. We direct USAC to make the crowdsourced data publicly available as soon as is practical after submission and direct OEA to work with USAC to establish an appropriate method for doing so. We do not specify a timeline for making such data publicly available but expect that there will be regular releases of crowdsourcing data. We direct USAC not to make publicly available private information submitted with the challenges. USAC may share such information (for example with the fixed provider about whom the dispute is being made) only to the extent it will be helpful to improve the quality of fixed broadband data reporting. We also direct USAC to develop mechanisms in the new platform to prevent malicious or unreliable filings, including automated mass filings.

21. *Benefits of Reporting Service Availability Maps Clearly Outweigh the Filing Burdens on Fixed Providers*. In establishing the Digital Opportunity Data Collection, we are cognizant of the need to ensure that the benefits resulting from use of the data outweigh the reporting burdens imposed on filers. We agree with commenters who contend that broadband coverage polygons will allow more granular analysis than the census-block data currently collected in the Form 477—and will do so with reasonable costs and burdens on fixed providers. We find that the approach we adopt, in which fixed providers will create broadband coverage polygons that depict their actual service areas, would, as NCTA asserts, "be a significant improvement over census-block reporting because *unserved* areas within served census blocks would no longer be counted as served." In turn, more granular data about areas where broadband is available will enable us to target unserved locations more precisely, especially in many rural areas that continue to lack broadband service.

22. For now, we continue to maintain the collection of fixed broadband deployment data on Form 477 in census-block format. While there will be additional reporting burdens for fixed providers to supply broadband deployment data as part of the new collection and through the Form 477, this approach will ensure that we have continuous access to consistent broadband deployment data for the purposes for which we require it. Given that service providers are already accustomed to submitting

census-block level data, and the census-block data is much less detailed than their Digital Opportunity Data Collection filings will be, the burden of continuing to also file census-block level data will be minimal.

23. We find that any additional burdens imposed by our new reporting approach will be relatively light for fixed providers in comparison to the significant benefit to be gained from more precise broadband deployment data. As an initial matter, many fixed providers already are familiar with the use of geospatial data because of its use in other contexts by the Commission and other federal and state agencies, thus making the transition reasonably simple. As Connected Nation notes, some fixed providers already have either internal GIS capabilities or have vendor relationships for the production of GIS files. In addition, Connected Nation suggests several online resources that can help fixed providers "create their own polygons of service availability, such as ESRI's ArcGIS software." Connected Nation expresses concern, however, that small service providers will struggle to comply with the new polygon-based reporting requirements unless they get some assistance in the generation of accurate broadband coverage polygons. To lessen the burdens on all fixed providers, we direct OEA to oversee USAC in making service-desk help available, as well as providing clear instructions on the form for the new collection, to aid filers in preparing their broadband coverage polygons. We disagree with commenters, such as the Broadband Mapping Coalition, who contend that a map-based approach is a burdensome and insufficient fix to the problem of fixed broadband mapping. We also disagree with Alexicon, which argues that small fixed providers be allowed to report broadband deployment subject to a certain margin of error. Although we recognize the burdens imposed on small fixed providers (and all fixed providers) as a result of the Digital Opportunity Data Collection, we find that such burdens are outweighed by the need for more granular and precise fixed broadband deployment data — especially in rural areas where smaller providers are more likely to be providing service.

24. With regard to the benefits to be realized from the new collection, we find that the

adoption of polygon-based reporting will enable crowdsourcing and similar approaches to act as a check on the deployment data submitted by fixed providers, which is not possible with census-block reporting. Rather than listing the census blocks where a fixed provider's broadband service is available, broadband coverage polygons will show the actual service areas covered by fixed broadband providers. This, in turn, will result in more precise information about where fixed broadband is available. The use of crowdsourcing to verify the polygon coverage areas submitted by fixed providers will further improve the validity of broadband deployment data.

25. Another critical benefit of transitioning to a polygon-based reporting format is the speed in which such a solution can be implemented. We are mindful of concerns voiced by commenters such as USTelecom that without a database of broadband-addressable locations (which USTelecom terms a "Broadband Serviceable Location Fabric"), broadband coverage polygons provide no information on how many, and which, specific locations in the service area do not actually have service available. However, we disagree with the Broadband Mapping Coalition that the submission of coverage polygons should wait until after a process has been established to identify and geolocate all of the broadband serviceable locations that exist in a given area. Instead, we agree with commenters, such as Connected Nation, that GIS data such as polygons will "provide significant granularity without the need to first create an underlying dataset of structures/locations with which the data can be paired."

26. We agree with commenters who argue that timing is crucial in getting more granular fixed broadband deployment data. We also agree that the mandatory collection of broadband coverage polygons best achieves the objectives of greater granularity in fixed broadband reporting within the shortest timeframe. As Connected Nation states, "implementing a system based on shapefile reporting would most likely result in the creation of a new more granular National Broadband Map in the shortest amount of time so that Federal agencies can more quickly utilize the map to guide funding decisions and support broadband buildout to the places that still desperately need it." We find that collecting

broadband coverage polygons offers the best approach to more granular broadband deployment data, and that we have an opportunity to move forward quickly to significantly improve the data collection in the near term.

27. *Public Availability of Service Availability Data*. We agree with NTIA that the Commission should release broadband deployment datasets with more public information, particularly "with tables, charts and maps, granular visualization tools for both localized areas and specific technologies, and other mechanisms that summarize the information." To better allow for crowdsourcing, mapping, and other uses of fixed broadband deployment data, all service provider information filed as part of the Digital Opportunity Data Collection will be presumed to be non-confidential unless the Commission specifically directs that it be withheld. Filers seeking confidential treatment of data submitted as part of the new collection must submit a request that the data be treated as confidential, along with the reasons for withholding the information from the public. The Commission will make decisions regarding non-disclosure of confidential information. We find that this approach strikes an appropriate balance between the protection of confidential information and the need for public disclosure of fixed broadband deployment data to help with crucial crowdsourcing functionality and mapping capabilities.

28. *USAC Verification of Broadband Coverage Maps*. In addition to incorporating feedback from state, local, and Tribal governmental entities, along with the public, we conclude that we must also take steps to independently verify coverage data submitted by service providers. As part of its Connect America Fund (CAF) responsibility, USAC maintains the High Cost Universal Broadband (HUBB) portal. CAF support recipients report through the HUBB portal latitude and longitude coordinates, address, deployment date, speed, and number of units for every location where service is available. This information forms the foundation for the Connect America Fund Broadband Map. We direct USAC to integrate the geolocation data contained in the HUBB with the broadband coverage polygons submitted pursuant to the Digital Opportunity Data Collection. Doing so will benefit our overall understanding of

how high-cost support dollars are used in conjunction with overall broadband deployment and will aid the data collection verification effort.

29. In the CAF context, USAC performs real-time validation of the CAF data submitted to the HUBB through a series of automated checks of the information (e.g., that the latitude/longitude falls within an eligible area and that the location is not a duplicate of one already submitted). The HUBB also provides USAC the platform to conduct verification reviews to "substantiate broadband deployment and confirm that carriers are in fact building out service that meets the FCC's minimum performance standards to the locations reported." Many elements of the process USAC uses for the CAF could potentially be used for verifying broadband deployment data as part of the Digital Opportunity Data Collection. We therefore direct USAC to propose and submit a plan to OEA for independently verifying the fixed broadband coverage polygons filed pursuant to the Digital Opportunity Data Collection. The verification process it proposes to use could parallel how USAC currently verifies deployment data submitted by CAF support recipients in the HUBB. USAC should propose other appropriate means of verifying the accuracy of filers' broadband coverage polygons, including site visits.

30. *Incorporating Location-Specific Data into the Digital Opportunity Database*. We note that our decision to require broadband coverage area maps does not preclude the use of location-specific coverage data in the future. We agree with USTelecom and NTCA that we "should not adopt an 'either/or' approach to improvements to data collection, but should both adopt shapefiles as a reporting methodology and move forward towards a uniform national dataset on top of which carriers can report broadband availability (via shapefile or other potential methods)." As a result, we intend to pursue a multi-faceted approach that also incorporates location-specific data into the Digital Opportunity Data Collection, informed by input received in response to the *Second FNPRM* on the best way to implement such an approach. We agree with NTCA that the submission of broadband coverage polygons "would certainly improve granularity in the near-term . . . but another significant benefit is the prospect of

integrating this approach seamlessly with broader, longer-term efforts to identify availability or lack thereof on a location basis." Location-based proposals such as the one put forth by the Broadband Mapping Coalition are "designed to produce the most accurate, precise data available, and be a flexible, long-term solution" to the problem of fixed broadband deployment accuracy and granularity.

31. While we intend to pursue development of a location-specific database, we will not delay implementation of the new data collection while we make a determination of how best to incorporate location-specific data. We agree with commenters like ACA who argue that location-specific reporting will impose substantial costs and complexity on fixed broadband providers, especially smaller providers, and will take significant time to complete. As a result, we find it is prudent to take this next step to improve the fixed broadband deployment data we collect in the near term. As a means of moving the location-based process forward as we work to establish our polygon-based approach, we seek comment in the *Second FNPRM* on the best and fastest way to implement a location-based approach to fixed broadband deployment reporting, including whether to run such a process in parallel, or closely aligned, with the establishment of the new online portal for the Digital Opportunity Data Collection.

32. *Alternatives Not Adopted*. We decline to adopt the approach set forth by Comcast and ACA to collect fixed broadband deployment data at the street segment level. According to ACA, while large providers have the capability and resources to collect broadband deployment data at a more granular level, smaller providers will face much greater burdens reporting deployment data with more precision. We find that a street-level approach to fixed broadband deployment reporting has the same problem with granularity as the current census-block approach, especially in rural areas. Specifically, fixed providers claiming broadband service availability on an entire street, when only part of the street actually is served, would overstate broadband deployment much more so than a GIS file-based approach. We also agree with WISPA that a street-segment approach is not appropriate for fixed

wireless providers, as streets and roads do not dictate how or where fixed wireless service is constructed, and consequently where service is provided and where it is available. Finally, given the familiarity that fixed providers have with GIS files, we find that is the better approach.

33. In addition, we find that NTIA's recommendation to collect sub-census-block level broadband deployment data only for larger census blocks does not go far enough. While we understand NTIA's desire to keep burdens low for filers, especially for small providers, we find that it is crucial to determine unserved broadband areas wherever they may be—in large, medium, or small census blocks. We do not agree with NTIA's assertion that we should only require more granular broadband deployment reporting in large census blocks—deployment data are critical for all areas and will allow federal and state governments (and providers) to determine with better particularity where broadband funding and buildout is most needed. In fact, the data suggest that there are likely unserved locations within even small blocks that are reported as served on Form 477. Granular reporting for all areas also would reduce customer confusion when attempting to determine broadband availability on a map produced from GIS-based data.

34. We also decline to adopt Connected Nation's proposal to establish a neutral, third-party clearinghouse for the collection of fixed broadband deployment data. We conclude that such a clearinghouse would be largely redundant in light of the revised framework for collecting and reporting fixed deployment data that we adopt in this *Report and Order*.

B. Improving the Existing Form 477 Data Collection

35. As USAC begins undertaking the Digital Opportunity Data Collection, we will continue to use Form 477 for certain intended uses, such as evaluating local telephone competition, gathering broadband deployment and voice subscription data, and collecting certain public safety information. However, we propose in the *Second FNPRM* to transition the collection of mobile broadband-capable

network deployment data to the same USAC-administered portal created for fixed data and seek comment on sunsetting Form 477. We maintain the Commission's current Form 477 data collection for mobile broadband and voice data in the interim and take several actions to reduce the burden on service providers required to submit the form.

36. Publish Minimum Advertised or Expected Speed Data and Provider-Specific Coverage Data for Mobile Broadband Services. We adopt our proposal from the 2017 Data Collection Improvement FNPRM to no longer treat as confidential service providers' minimum advertised or expected speed data for mobile broadband services. After review of the record and considering what service providers already make public on their websites, we conclude that minimum advertised or expected speed data filed for mobile broadband services will not be treated as confidential and, therefore, such data will be publicly released for all subsequent filings. Currently, the bulk of the speed data that providers file relating to minimum advertised or expected speeds is treated as confidential because most, if not all, providers choose to check the non-disclosure box that is available to them on the form. This box allows providers to claim confidential treatment for what is otherwise publicly available speed information. Doing so, however, unnecessarily limits the ability of consumers and policy makers to effectively analyze the data submitted.

37. We also conclude that provider-specific coverage data will be publicly released for all subsequent Form 477 filings. This action is necessary to ensure that consumers can easily use the information that is disclosed to the public, including minimum advertised or expected speed data, because such information is only beneficial if consumers know where service coverage is available. Because the Commission already makes provider-specific coverage data publicly available on its website by publishing each provider's shapefiles, filers will no longer be permitted to request confidential treatment for such information upon filing.

38. We expect that disclosing minimum advertised or expected speed data, combined with already publicly available coverage information, will serve the public interest by promoting a more informed, transparent, and efficient marketplace. The dissemination of such information will allow consumers to determine what services are offered in specific geographic areas. It will also enable consumers to compare competing service offerings and make informed decisions regarding service plans and providers. In addition, it will provide consumers with the opportunity to review the data to ensure its accuracy.

39. We are not persuaded that this coverage and speed data is competitively sensitive. Providers routinely publish and advertise the expected upload and download speeds they offer. Because coverage and speed data are already publicly available, we find that such information is not commercially sensitive, and conclude that its public release will not cause competitive harm to service providers. Most commenters agree that service providers often publicize this information by including it on their websites or in their advertising materials, which shows that they do not consider such information to be confidential or commercially sensitive.

40. When balancing the public and private interests at stake, we conclude that public release of these data will not result in competitive harm and that the public interest in releasing coverage and speed information substantially outweighs any interest that service providers have in keeping confidential information that is already publicly available. Accordingly, going forward we will publish nationwide, provider-specific coverage maps depicting minimum advertised or expected speed data.

41. *Eliminating Requirement to Report Broadband Network Coverage by Spectrum Band.* Under the current Form 477 reporting framework, mobile facilities-based providers are required to submit separate coverage maps depicting their broadband network coverage areas for each

transmission technology and each frequency band. Eliminating this requirement is necessary to enhance focus on aspects of the data that are more important while decreasing burdens, so we therefore eliminate this unnecessary requirement.

42. The Commission had hoped that collecting deployment information by spectrum band would enable it "to analyze deployment in different spectrum bands," but that has not come to pass. We agree with commenters that eliminating this requirement will streamline the reporting process and reduce the number of coverage maps (and the associated underlying data processing) that reporting entities must submit. As Verizon notes, the Commission usually requests band-specific information directly from licensees in the context of analyzing build-out and license renewal representations, and does not look at the current data collected. The burdens of submitting these data outweigh the benefits, particularly in light of the Commission's limited use of these data.

43. We disagree that the Commission and consumer advocates may find it difficult to monitor providers' buildout requirements without this information. We are also not persuaded by Institute for Local Self-Reliance's (ILSR) unsupported argument that we should continue to collect information that might be useful in the future. ILSR provides no meaningful examples of how the Commission might use these data. We also disagree with ILSR's claim that information on deployment by spectrum band is "essential" to determine if mobile providers are offering mobile broadband service of 10 Mbps download and 1 Mbps upload. Mobile broadband service providers already separately provide deployment data, including information on minimum advertised speeds. Moreover, given that service providers are deploying technologies (e.g., LTE) in multiple bands, we find this information is even less useful today than it was in 2013 when we originally imposed this requirement. We should not impose collection burdens based solely on the possibility that we might use the information at some point in the future.

44. *Adding a 5G-NR Technology Code.* In the *2017 Data Collection Improvement FNPRM*, the Commission sought comment on whether it should require separate reporting of 5G mobile broadband deployment and, if so, whether and how it should define 5G for the purposes of the Form 477 data collection. Given the industry's increasing deployment of 5G and our goal of facilitating 5G services to consumers, we will now require providers to report 5G technology deployments as part of their filings. Gathering 5G deployment data for all areas of the country as well as creating 5G deployment maps based on such data is necessary so that consumers can understand where they can receive such services and to help guide us for future policies on 5G technology. We find that adding 5G technology deployments to our mobile broadband data collection and maps—and specifically defining it for purposes of Form 477 collection—is consistent with the Commission's goal of tailoring its policies to evolution in technologies. We therefore adopt the 5G-NR (New Radio) technology standards developed by the 3rd Generation Partnership Project (3GPP) with Release 15 and require providers to submit 5G deployment data that meet the specifications of Release 15 (or any successor release that may be adopted by the Commission's Bureaus).

45. We disagree with some commenters' claims that requiring submission of 5G deployment data would lead to inconsistent results based on an absence of 5G industry standards. The 3GPP 5G-NR technology standards provide adequate guidance for filers to determine which deployments meet the 5G-NR technology definition. We reject CTIA's suggestion that providers be allowed to voluntarily report 5G deployments. To ensure that both the Commission and consumers have an accurate account of 5G deployments, we will make such submissions mandatory.

46. *Eliminating Outdated Technology Codes.* In the *2017 Data Collection Improvement FNPRM*, the Commission sought comment on whether to eliminate or modify the requirement that mobile broadband providers report coverage information for each technology deployed in their networks. Specifically, the Commission asked whether reporting entities should provide coverage maps

for four categories of technology—3G, 4G non-LTE, 4G LTE, and 5G—rather than the nine mobile broadband technology codes that it currently uses and, if so, how the Commission should define these four categories. Based on our experience with data gathered under the nine different mobile broadband technologies that the form specifies and on commenters' support for limiting the number of technologies, we modify the requirement to limit the required submission to four categories of technology—"5G-NR (New Radio)," "LTE (Long Term Evolution)," "CDMA-based," and "GSM-based."

47. For broadband data submissions going forward, 5G-NR reported technology should comply with industry standards for 5G as adopted by 3GPP. Similarly, we adopt the LTE standards developed by 3GPP in Release 8 through Release 14, and deployment reported under LTE should be consistent with such standards. The "CDMA-based" category aggregates the CDMA and EVDO/EVDO Rev A categories in the current form, and the "GSM-based" category combines the GSM, WCDMA/UMTS/HSPA, and HSPA+ categories. We will eliminate collection of deployment data under the Analog and WiMAX categories because both technologies are no longer in widespread use and have been decommissioned by several mobile providers. The categories we adopt today will more meaningfully reflect information that is useful to consumers.

48. Several commenters suggest modifications to the proposal in the *2017 Data Collection Improvement FNPRM*. We reject AT&T's suggestion that we require "providers to file coverage maps for only three technology categories, 3G/4G, 4G LTE and 5G." As some commenters observe, modifying the requirement will fail to capture deployment of mobile technologies that predate LTE and 5G when parts of the country are still reliant on such technologies. To address in part the concerns of GCI, Connected Nation, and the CPUC, we do not adopt AT&T's proposal. Instead, we modify the proposal from the *2017 Data Collection Improvement FNPRM* to retain aggregated collection under the "CDMA-based" and "GSM-based" categories of mobile broadband deployment data under technologies that predate LTE and 5G-NR (with the exception of WiMAX and Analog) because important uses remain for such data.

Aggregated collection under the "CDMA-based" and "GSM-based" categories, combined with collection of LTE and 5G-NR deployment, will ensure that areas of the country covered by at least 3G technology and entirely unserved areas of the country are captured, and will allow the Commission and other policymakers to evaluate those areas most in need.

49. Given the extent of LTE deployment across the country, the importance of capturing mobile broadband deployment data under nine technology codes has been significantly reduced. In 2017, "approximately 92% of the U.S. population lived in census blocks with LTE coverage by at least four service providers," "AT&T and Verizon each provided LTE coverage to census blocks containing approximately 98% of the population, T-Mobile provided LTE coverage to approximately 96% of the population, while Sprint provided LTE coverage to approximately 91% of the population." Thus, with providers' increased reliance on LTE to provide mobile broadband across the country, capturing mobile broadband deployment under nine technology codes has become outdated and unnecessary. The four codes that we adopt in this item will reduce burdens on filers while providing adequate information for the Commission to continue to "assess the wireless marketplace to ensure that our spectrum and competition policies accommodate growing demand and evolving technologies in the provision of mobile broadband services."

50. The new 5G-NR, LTE, CDMA-based, and GSM-based technology codes also lessen the likelihood that filers may adopt and file under their own definitions of technology deployments, leading to confusion and decreasing the usefulness of the data gathered. Given that there are industry standards for 5G technology and LTE, we find it unnecessary to continue to require individual submissions under each of the previous nine codes.

51. Finally, requiring deployment data to be submitted under four, instead of nine, technology codes will ease burdens on filers who must currently submit shapefiles for each technology.

We find that the limited usefulness and practical application of the nine technology codes that Form 477 currently requires do not outweigh the burdens that they generate for filers.

52. *Simplifying Mobile Voice Deployment Data Collection*. We eliminate the requirement to submit mobile voice data by spectrum band for the same reasons that we eliminate this requirement for mobile broadband data: The Commission has yet to use this spectrum band information in its mobile voice coverage analysis and the requirement poses an additional burden on filers. We also streamline the technology filing requirement to four main voice-technology categories: 5G-NR, Voice-over-LTE (VoLTE), GSM-based, and CDMA-based. GSM-based voice technologies include GSM or a subsequent generation of GSM, such as the current technology codes GSM, WCDMA/UMTS/HSPA, and HSPA+. CDMA-based voice technologies include CDMA or a subsequent generation of CDMA, such as the current technology codes CDMA and EVDO/EVDO Rev A.

53. In filing nationwide voice-service coverage data, facilities-based mobile voice providers are required to submit shapefiles representing geographic coverage by technology (e.g., LTE, CDMA, analog) and spectrum band of the service providers' voice coverage. In the *2017 Data Collection Improvement FNPRM*, the Commission, while noting the importance of tracking where mobile voice services are available to consumers, sought comment on how it might streamline this collection. Specifically, the Commission asked whether it should eliminate the submission of voice coverage by both technology and spectrum band and whether it should continue to collect data for VoLTE separately.

54. In the *2013 Form 477 Order*, the Commission stated that voice deployment data filed by spectrum band and technology type would (1) enable the Commission to analyze the extent of deployment in different spectrum bands; (2) help the Commission project market trends and adjust its spectrum and competition policies; and (3) assist in the Commission's efforts in the areas of emergency

response and disaster relief by identifying the providers that typically serve an affected area. The Commission no longer finds it useful, however, to examine voice deployment data by spectrum band for the purpose of adjusting its spectrum and competition policies, because service providers currently deploy voice and broadband technologies across multiple bands. We also address the Commission's need to determine which provider's networks are available during an emergency, by retaining the requirement to submit data for VoLTE deployment. For example, VoLTE data coverage information demonstrates comprehensive technological compatibility among providers and aids the Commission in identifying where networks are available during natural disasters.

55. Multiple commenters observe that several maps must be generated to meet this filing requirement, with little corresponding benefit. In balancing these interests, we find that more streamlined coverage maps depicting each provider's nationwide voice coverage area based on the technology categories outlined above allows consumers (and the Commission) to know where they can receive voice service from a given provider. We agree with the argument that continuing a separate collection for certain voice technologies is necessary because, for instance, consumers with a GSM-only phone may not be able to complete a call when roaming in an area where only CDMA is available. Providers have or will soon sunset their older voice technologies, replacing them with VoLTE networks. However, continuing to collect the voice technology deployment data we outline in this order is necessary for tracking where remaining legacy voice technologies are decommissioned, to ensure that coverage gaps in mobile calling do not arise.

56. While we are streamlining the filing of voice-deployment data, we find facilities-based mobile-voice providers should continue to submit VoLTE-deployment data and going forward submit 5G voice deployment data under the new 5G-NR category. These data are valuable because they represent potential universal technical compatibility among mobile-voice providers, which could significantly aid emergency response and other efforts facilitated by such compatibility. For example, VoLTE coverage

could better facilitate a customer's ability to complete a 911 call while roaming, particularly in rural areas where other voice technologies are not available. VoLTE is not yet ubiquitous. The filing of 5G-NR and VoLTE coverage data will allow the Commission to monitor how these deployments fill-in and expand upon the current voice-coverage footprint. We direct OEA, in consultation with WCB and WTB to change which mobile voice service technology data are collected going forward, as they evolve.

57. *Collect Mobile Broadband and Voice Subscription Data at the Census Tract Level.* Facilities-based mobile-broadband and voice providers are currently required to submit their subscriber numbers by state. Providers must include their own prepaid and postpaid customers in addition to those of resellers. Currently, providers are instructed to assign a subscriber to a particular state based on the area code of the device's phone number or "by using some other method that best reflects the subscriber's locations, such as billing address or place of primary use address."

58. To provide more granular data, the *2017 Data Collection Improvement FNPRM* proposed changing the subscribership data by requiring service providers to submit subscriber data at the census-tract level, attributed to the subscriber's billing address. Based on the record and the Commission's need for more granular data, we now require mobile providers to submit broadband and voice subscriber data at the census-tract level based on the subscriber's place of primary use for postpaid subscribers and based on the subscriber's telephone number for prepaid and resold subscribers. We find that state-level aggregation of subscription data significantly limits the data's usefulness, and that census-tract level data would substantially improve our ability to conduct more accurate mobile competition analysis, particularly in secondary market transactions. For instance, the Commission analyzes competition by Cellular Market Area to determine the impact of removing a competitor in a proposed license transfer. While the Commission receives subscriber data from service providers to assess competition in relevant market areas in a pending transaction, it does not contain information about the other competitors in the market. Having the same census-tract level subscribership data from

all providers facilitates the Commission's ability to conduct comparative analysis in license transfer proceedings.

59. The Commission today relies on the telephone number-based Number Resource Utilization/Forecast information as a proxy for filer-submitted subscriber numbers when conducting competitive market analyses because of shortcomings in state-level subscriber data. Number Resource Utilization/Forecast subscriber data indicate the number of assigned phone numbers that a service provider has in a particular rate center, out of the 18,000 rate centers across the country. All service providers must report to the Commission the quantity of their phone numbers assigned to end users, which permits the Commission to calculate the total number of mobile wireless subscribers. When a geographical analysis is required, rate center data can be associated with a geographic point within a county boundary.

60. Number Resource Utilization/Forecast data, however, have limitations, like providing only the quantity of mobile wireless connections that have a telephone number, rather than the number of consumers subscribed to mobile broadband or voice service. If a mobile broadband or voice subscriber uses a device that does not have a telephone number assigned to it (e.g., a tablet), then that subscriber will not be recorded in Number Resource Utilization/Forecast data. These data also do not reflect when consumers move to a different state and retain the same telephone number.

61. We find that both the Commission's need for more precise data for competitive analyses and the limitations of Number Resource Utilization/Forecast data outweigh industry concerns about the burden of the collection. We believe that filer-supplied data at the census-tract level are superior to Number Resource Utilization/Forecast data because they are generated by the operators and based on the operator-determined location of its subscribers. Use of Number Resource Utilization/Forecast data require the Commission to estimate the location of subscribers based on the

rate centers associated with telephone numbers, and this can cause problems. Mobile subscriber data at the census-tract level provides a dataset needed for our analyses, instead of introducing error by relying on Number Resource Utilization/Forecast data in a manner that it was not intended to be used.

62. Census-tract level reporting of mobile subscription data strikes the proper balance between more useful, granular data, while reducing artificial precision that could be introduced by getting too granular with mobile service use. Some commenters support the requirement to file subscriber data by census block. OTI states that census-block level data would help digital literacy programs better target their efforts, because many households subscribing to these programs rely on mobile broadband as their primary means of accessing the Internet. Using census tracts is consistent with our previous finding that this level of granularity corresponds to actual locations and can be correlated with valuable demographic census data. Moreover, subscription data at the census-tract level would be useful for analyzing competition by market and would be more useful than rate-center based Number Resource Utilization/Forecast data. While customers are attributed to a particular address for their place of primary use, unlike fixed, the mobile nature of the service inherently makes such attribution to too small an area artificial. The census-tract level maintains the balance of being useful for our analyses while reducing any artificial granularity.

63. We are not convinced that the burdens on reporting entities are so high that the Commission should continue to rely on Number Resource Utilization/Forecast data. We disagree with commenters who contend that we should continue to rely on Number Resource Utilization/Forecast data as the primary source of mobile broadband connections and voice service subscriptions. The Commission must move forward with a more accurate mobile subscription collection to meet its goals and track subscribership data. Nothing in the record indicates that a census-tract collection is any more burdensome for mobile filers than for fixed filers, whom were already required to provide subscriber data at the census-tract level.

64. To ensure consistency among submissions, we require providers to submit census tract postpaid subscribership data by "place of primary use," which is defined in the United States Code as "the street address representative of where the customer's use of the mobile telecommunications service primarily occurs," and must be the "the residential street address or the primary business street address of the customer" and "within the licensed service area of the home service provider." We find, however, that we should seek further comment on applying the place of primary use methodology to prepaid and reseller subscribers. As explained by CTIA, many prepaid mobile providers neither collect nor use place of primary use. Once prepaid subscribers purchase mobile services at point-of-sale, the service provider may not communicate with or track the subscriber. It would be a significant change if retailers and service providers are required to collect subscriber billing address at point-of-sale, or if providers are required to obtain customer billing address by some other means, such as by directly contacting the subscriber via text message or telephone call. To ensure the Commission receives prepaid and reseller subscriber data using a consistent methodology, we find it is necessary on an interim basis to require providers to submit data that assigns those subscribers to a census tract using the subscriber's telephone number.

65. We find persuasive the concerns expressed by commenters that the use of billing address does not reflect where subscribers primarily use their mobile broadband and voice services. Certain subscriber groups, such as seasonal workers, college students, business accounts, and prepaid subscribers, could be misreported if billing address is used to represent where they primarily use their service. The "place of primary use" best addresses all of these concerns. This definition focuses on where the service is primarily used, not billed, and allows for inclusion of prepaid subscribers. Facilities-based mobile service providers must also obtain and maintain this information for tax purposes, thus decreasing the burden of collecting and storing these subscriber data. To the extent that providers do not currently have a system that associates a place of primary use with a census tract, providers should

obtain and keep this information in the normal course of business going forward. While the place of primary use may not reflect all locations that subscribers may use their service, we believe it is the best proxy given the benefits and burdens commenters identified.

66. *Eliminating Collection of Mobile Retail Availability*. We conclude it is appropriate to no longer collect census-tract level mobile retail availability data. The current form requires facilities-based mobile broadband providers to submit a list of census tracts in which the provider advertises its mobile wireless broadband service and in which the service is available to actual and potential subscribers. These retail availability data were used as a proxy for mobile broadband deployment data before the Commission required submission of such data. When the Commission began collecting deployment data, it decided to retain the retail availability collection, on the basis that such data are necessary to indicate where, within a service provider's coverage area, the provider actually has a local retail presence. The Commission concluded that collection of retail availability data would complement the deployment data by allowing the Commission to better understand where service is "advertised and available" to subscribers within the provider's deployment footprint.

67. The *2017 Data Collection Improvement FNPRM* proposed to eliminate the collection of retail availability data, given that, as time passed, the data did not in actuality provide useful, additional information about where service providers have a local retail presence. Based on the record, we now eliminate the mobile retail availability collection. We agree with commenters that this collection creates an additional filing burden but does not yield useful data.

68. We are not persuaded by those commenters that support retention or improvement of the retail availability filing requirement. The California PUC argues that we should continue collecting this information, but does not explain how it is useful beyond what is also collected for deployment data. The West Virginia Office of the GIS State Coordinator states that we should revise the collection

and require providers to submit their local retail presence, which would aid in determining how to serve consumers not located in retail service areas. However, most (if not all) consumers can still subscribe to service despite the lack of a retail presence in a location, if a provider's network covers that location. We find that deployment information, which service providers must continue to submit, is much more useful to consumers and policymakers than retail availability information, and accordingly we eliminate the mobile retail availability collection.

69. *Eliminating the Committed Information Rate Collection for Fixed-Broadband Deployment*. Form 477 currently requires fixed providers offering business/enterprise/government services to report the maximum downstream and upstream contractual or guaranteed data throughput rate (committed information rate) available in each reported census block. However, the record in this proceeding supports discontinuing the collection of committed information rate data. We agree with commenters such as Alaska Communications that committed information rate data is "not a useful category of data" and "imposes significant burdens", and with ACA, who argues that any rationale there was to adopt the requirement no longer exists because "small- and medium-sized end-users increasingly do not distinguish" between best-efforts or committed information rate "as broadband service performance for best-efforts is enhanced." Verizon also agrees with eliminating the committed information rate requirement because "relying on the maximum upload and download speed should sufficiently describe the services that are available to business customers in an area." AT&T supports elimination and asks that the Commission "limit the collection to the maximum best efforts speed offered, and maintain the indicators for consumer and business data." Other commenters also are in agreement with eliminating the committed information rate reporting requirement.

70. Only Windstream supports keeping the collection of committed information rate data, arguing that such data "enable the Commission to evaluate trends in the competitive landscape for the provision of Business Data Services . . . ." Windstream, in fact, urges the Commission not only to keep

but also to expand the collection and require reporting of the following CIR ranges at the census-block level: (1) 10 Mbps and below; (2) 11 to 50 Mbps; (3) 51 to 100 Mbps; (4) 101 Mbps to 1 GB; and (5) above 1GB. Windstream contends that these data "are crucial for the Commission to evaluate whether its predictions prove accurate or whether different action is necessary to ensure competitive [business data service] markets."

71. We disagree. Specific measures of a committed information rate are not required to evaluate the business data services market per the competitive market test that the Commission adopted in 2017 for price cap areas (prior to the *2017 Data Collection Improvement FNPRM*) and in 2018 for certain rate-of-return areas. Accordingly, discontinuing the committed information rate collection lacks any relationship to our ability to "evaluate trends in the competitive landscape for the provision of [business data services]," as Windstream claims. The competitive market test depends on reported service speeds (specifically, a minimum of 10/1 Mbps). As long as we collect service speeds for upload and download, all the information necessary for an analysis using the competitive market test remains available. Therefore, we disagree with Windstream and decline to expand the collection of committed information rate data as requested.

72. Permitting Company-Specific Fixed-Voice-Subscription Data at the Study-Area Level for Incumbent Local Exchange Companies. In the 2017 Data Collection Improvement FNPRM, the Commission proposed to use the Form 477 fixed voice subscription data, in conjunction with Study Area Boundary data, to develop and publish aggregated voice line counts for every rate-of-return carrier study area. The Commission's proposal stemmed from the fact that, at the time, rate-of-return carriers switching to the Alternative Connect America Cost Model and Alaska Plan carriers were no longer required to report such data to USAC for its legacy study area boundaries. However, in the December 2018 Rate-of-Return Reform Order, the Commission reinstated the requirement so the Commission can once again collect the line count information (through FCC Form 507), thereby maintaining a frequently-

used data set. Consequently, we decline to adopt the proposal to replace the FCC Form 507 data with the Form 477 fixed voice subscription data (plus Study Area Boundary data) because the underlying rationale for the Commission's proposal no longer exists (i.e., the proposal is moot).

73. *Non-Substantive Clarifying Rule Amendments*. Finally, we adopt amendments to clarify our rules, correct inaccurate references, and delete superfluous text, without changing the substantive requirements. First, we modify the rules to more clearly identify the categories of service providers required to submit data. The Commission has required facilities-based providers of broadband service to submit Form 477 since 2000, but the existing rules do not define the key term "broadband." We remedy this gap by incorporating the form Instructions' definition of "broadband connection" into the rule. Moreover, facilities-based providers of mobile voice service have been required to file since the form's inception; but the rules do not make clear that mobile voice service providers can be defined as "facilities-based providers" or that only those that qualify as "facilities-based" must file. We correct these anomalies by broadening the definition of "facilities-based providers" to encompass mobile voice service providers as well as broadband connections.

74. We also consolidate the separate rule sections that establish Form 477 filing requirements for broadband service providers (Sections 1.7000 *et seq.*) and local voice service providers (Section 43.11) into a single set of rules. It is no longer necessary to retain two separate sets of rules regarding submission of the same form, particularly because any given entity may provide both types of services and thus is subject to both rules. Furthermore, we revise text in Section 1.7001(a) that inaptly refers to facilities-based providers' rights to use spectrum in terms of ownership rather than licensing. Instead, we use the more precise and accurate text of the Form 477 Instructions to make clear that fixed wireless and mobile voice and broadband service providers are "facilities-based," for these purposes, if they: (1) use spectrum for which they have a license; (2) manage or lease spectrum from another licensee pursuant to our rules; or (3) operate over unlicensed spectrum that is lawfully available for its

use. We also delete unnecessary text.

75. Finally, we direct WCB, together with IB, WTB, and OEA, to modify Form 477 and the Instructions to the form to reflect changes in technologies over time and to update coverage resolution, network or transmission technologies, and related matters reported on Form 477 as necessary.

IV. Final Regulatory Flexibility Analysis

76. As required by the Regulatory Flexibility Act of 1980, as amended (RFA), an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the 2017 Data Collection Improvement FNPRM released in August 2017 in this proceeding. The Commission sought written public comment on the proposals in the FNPRM, including comments on the IRFA. No comments were filed specifically in response to the IRFA. One commenter in the proceeding referenced the IRFA in its general comments, and we address those comments below in Section B. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.

A. Need for, and Objectives of, the Proposed Rules

77. The Form 477 collection has evolved into the primary data source for many Commission actions, including reporting to Congress and the public about the availability of broadband services, informing merger reviews, and supporting our universal service policies. With the *Report and Order*, the Commission takes steps to improve the Form 477 data collection to reduce filing burdens and provide more useful information to consumers. Specifically, we make targeted changes to streamline the filing process and eliminate the collection of certain information that we believe is not sufficiently useful when compared with the burden imposed on filers in providing such information. In addition, we make targeted changes such as clarifying parts of the instructions and modifying the collection of certain data to aid in more accurate broadband data and the maps based on that data to improve the overall quality and accuracy of the data that we collect on fixed and mobile voice and broadband service. We also

streamline the nine mobile broadband technology codes currently listed on the Form 477 down to four categories of technology; require collection of facilities-based mobile broadband and voice subscription data at the census tract level; and make publicly available speed data that mobile broadband service providers submit on all subsequent Form 477 filings.

78. It also has become clear to the Commission that the fixed-broadband deployment data collected on Form 477 are no longer sufficient to use for targeting our universal service funds. Therefore, we direct the Universal Service Administrative Company (USAC), under the oversight of the Commission's Office of Economics and Analytics (OEA), the Wireline Competition Bureau (WCB), Wireless Telecommunications Bureau (WTB), and the International Bureau (IB), to initiate a new data collection (the Digital Opportunity Data Collection) for fixed providers based on geospatial broadband service availability data that represent the actual service area where fixed broadband is available. At the same time, to complement this granular broadband availability data, we adopt a process to have USAC begin collecting public input, sometimes known as "crowdsourcing," on the accuracy of service providers' broadband deployment data. Through this new tool, State, local, and Tribal governmental entities, and members of the public, will be able to submit fixed broadband availability data, leveraging their experience concerning service availability. We believe these actions in the *Report and Order* will increase the usefulness of fixed broadband deployment data to the Commission, Congress, the industry, and the public.

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

79. The Wireless Internet Service Providers Association (WISPA) in its general comments to the *FNPRM* contends that that IRFA does not meet the requirements of the Regulatory Flexibility Act (RFA) because the Commission failed "to estimate how many small broadband providers use unlicensed spectrum." Section 603 of the RFA requires the Commission to include in the IRFA "a description of and,

where feasible, an estimate of the number of small entities to which the proposed rule will apply." WISPA argues that it is feasible for the Commission to estimate the number of small fixed wireless Internet providers by using the information from its data collection on Form 477.

80. When we prepared the IRFA in 2017, it was not feasible for us to provide an accurate estimate of the number of small wireless Internet service providers (WISPs) that would be affected by the proposed rule. Our action in Section III.B. of this *Report and Order* clarifies that WISPs that operate over unlicensed spectrum are required to file Form 477. We recognize the possibility that such entities might not have filed in prior data collections because of the ambiguity in Section 1.7001(a) of the Commission's rules. Thus, at the time, it was not feasible for us to estimate the number of small WISPs that would be affected by the proposed rule. However, we specifically considered the potential impact of the proposed rule on small WISPs in the IRFA for the *2017 Data Collection Improvement FNPRM* by including such entities in the "Broadband Internet Access Service Providers" category.

C. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration

81. Pursuant to the Small Business Jobs Act of 2010, which amended the RFA, the Commission is required to respond to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration (SBA) and to provide a detailed statement of any change made to the proposed rules as a result of those comments.

82. The Chief Counsel did not file comments in response to the proposed rules in this proceeding.

D. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply

83. The RFA directs agencies to provide a description of and, where feasible, an estimate of

the number of small entities that may be affected by the rules adopted herein. The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act." A "small business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.

84. *Small Businesses, Small Organizations, Small Governmental Jurisdictions*. Our actions, over time, may affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three comprehensive small entity size standards that could be directly affected herein. First, while there are industry-specific size standards for small businesses that are used in the regulatory flexibility analysis, according to data from the SBA's Office of Advocacy, in general a small business is an independent business having fewer than 500 employees. These types of small businesses represent 99.9% of all businesses in the United States which translates to 28.8 million businesses.

85. Next, the type of small entity described as a "small organization" is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field." Nationwide, as of August 2016, there were approximately 356,494 small organizations based on registration and tax data filed by nonprofits with the Internal Revenue Service (IRS).

86. Finally, the small entity described as a "small governmental jurisdiction" is defined generally as "governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand." U.S. Census Bureau data published in 2012 indicate that there were 89,476 local governmental jurisdictions in the United States. We estimate that, of this total, as many as 88,761 entities may qualify as "small governmental jurisdictions." Thus, we estimate that most governmental jurisdictions are small.

i. Broadband Internet Access Service Providers

87. The broadband Internet access service provider industry has changed since the definition was introduced in 2007. The data cited below may therefore include entities that no longer provide broadband Internet access service and may exclude entities that now provide such service. To ensure that this FRFA describes the universe of small entities that our action might affect, we discuss in turn several different types of entities that might be providing broadband Internet access service. We note that, although we have no specific information on the number of small entities that provide broadband Internet access service over unlicensed spectrum, we included these entities in our Initial Regulatory Flexibility Analysis.

88. *Internet Service Providers (Broadband).* Broadband Internet service providers include wired (e.g., cable, DSL) and VoIP service providers using their own operated wired telecommunications infrastructure and fall in the category of Wired Telecommunication Carriers. Wired Telecommunications Carriers are comprised of establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies. The SBA size standard for this category classifies a business as small if it has 1,500 or fewer employees. U.S. Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees. Consequently, under this size standard the majority of firms in this industry can be considered small.

89. *Internet Service Providers (Non-Broadband).* Internet access service providers such as Dial-up Internet service providers, VoIP service providers using client-supplied telecommunications connections, and Internet service providers using client-supplied telecommunications connections (e.g.,

dial-up ISPs) fall in the category of All Other Telecommunications. The SBA has developed a small business size standard for All Other Telecommunications, which consists of all such firms with gross annual receipts of $32.5 million or less. For this category, U.S. Census data for 2012 shows that there were 1,442 firms that operated for the entire year. Of these firms, a total of 1,400 had gross annual receipts of less than $25 million. Consequently, under this size standard a majority of "All Other Telecommunications" firms can be considered small.

2. Wireline Providers

90. *Wired Telecommunications Carriers.* The U.S. Census Bureau defines this industry as "establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired communications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services, wired (cable) audio and video programming distribution, and wired broadband internet services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry." The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees. U.S. Census Bureau data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees. Thus, under this size standard, the majority of firms in this industry can be considered small.

91. *Local Exchange Carriers (LECs).* Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to local exchange services. The closest applicable NAICS Code category is Wired Telecommunications Carriers. Under the applicable SBA size

standard, such a business is small if it has 1,500 or fewer employees. According to Commission data, U.S. Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees. Thus under this category and the associated size standard, the Commission estimates that the majority of local exchange carriers are small entities.

92. *Incumbent Local Exchange Carriers* (*Incumbent LECs*). Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. The closest applicable NAICS Code category is Wired Telecommunications Carriers. Under the applicable SBA size standard, such a business is small if it has 1,500 or fewer employees. According to U.S. Census Bureau data for 2012, 3,117 firms operated in that year. Of this total, 3,083 operated with fewer than 1,000 employees. Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by our actions. According to Commission data, 1,307 Incumbent LECs reported that they were incumbent local exchange service providers. Of this total, an estimated 1,006 have 1,500 or fewer employees. Thus, using the SBA's size standard, the majority of Incumbent LECs can be considered small entities.

93. *Competitive Local Exchange Carriers (Competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers*. Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate NAICS Code category is Wired Telecommunications Carriers and under that size standard, such a business is small if it has 1,500 or fewer employees. U.S. Census Bureau data for 2012 indicate that 3,117 firms operated during that year. Of that number, 3,083 operated with fewer than 1,000 employees. Based on these data, the Commission concludes that the majority of Competitive LECS, CAPs, Shared-Tenant Service Providers, and Other Local Service Providers, are small entities. According to Commission data, 1,442 carriers reported that they were engaged in the provision of either competitive local exchange services or competitive access provider services. Of these 1,442 carriers, an

estimated 1,256 have 1,500 or fewer employees. In addition, 17 carriers have reported that they are Shared-Tenant Service Providers, and all 17 are estimated to have 1,500 or fewer employees. Also, 72 carriers have reported that they are Other Local Service Providers. Of this total, 70 have 1,500 or fewer employees. Consequently, based on internally researched FCC data, the Commission estimates that most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and Other Local Service Providers are small entities.

94. *Interexchange Carriers (IXCs).* Neither the Commission nor the SBA has developed a definition for Interexchange Carriers. The closest NAICS Code category is Wired Telecommunications Carriers. The applicable size standard under SBA rules consists of all such companies having 1,500 or fewer employees. U.S. Census Bureau data for 2012 indicate that 3,117 firms operated during that year. Of that number, 3,083 operated with fewer than 1,000 employees. According to internally developed Commission data, 359 companies reported that their primary telecommunications service activity was the provision of interexchange services. Of this total, an estimated 317 have 1,500 or fewer employees. Consequently, the Commission estimates that the majority of interexchange service providers are small entities.

95. *Operator Service Providers* (*OSPs*). Neither the Commission nor the SBA has developed a small business size standard specifically for operator service providers. The closest applicable size standard under SBA rules is the category of Wired Telecommunications Carriers. Under the size standard for Wired Telecommunications Carriers, such a business is small if it has 1,500 or fewer employees. U.S. Census Bureau data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees. Thus, under this size standard, the majority of firms in this industry can be considered small.

96. According to Commission data, 33 carriers have reported that they are engaged in the

provision of operator services. Of these, an estimated 31 have 1,500 or fewer employees and two have more than 1,500 employees. Consequently, the Commission estimates that the majority of OSPs are small entities.

97. *Other Toll Carriers*. Neither the Commission nor the SBA has developed a definition for small businesses specifically applicable to Other Toll Carriers. This category includes toll carriers that do not fall within the categories of interexchange carriers, operator service providers, prepaid calling card providers, satellite service carriers, or toll resellers. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers and the applicable small business size standard under SBA rules consists of all such companies having 1,500 or fewer employees. U.S. Census data for 2012 indicate that 3,117 firms operated during that year. Of that number, 3,083 operated with fewer than 1,000 employees. According to Commission data, 284 companies reported that their primary telecommunications service activity was the provision of other toll carriage. Of these, an estimated 279 have 1,500 or fewer employees. Consequently, the Commission estimates that most Other Toll Carriers are small entities.

3. Wireless Providers – Fixed and Mobile

98. The broadband Internet access service provider category covered by these new rules may cover multiple wireless firms and categories of regulated wireless services. Thus, to the extent the wireless services listed below are used by wireless firms for broadband Internet access service, the actions may have an impact on those small businesses as set forth above and further below. In addition, for those services subject to auctions, we note that, as a general matter, the number of winning bidders that claim to qualify as small businesses at the close of an auction does not necessarily represent the number of small businesses currently in service. Also, the Commission does not generally track subsequent business size unless, in the context of assignments and transfers or reportable eligibility

events, unjust enrichment issues are implicated.

99. *Wireless Telecommunications Carriers (except Satellite*). This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular services, paging services, wireless internet access, and wireless video services. The appropriate size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees. For this industry, U.S. Census data for 2012 show that there were 967 firms that operated for the entire year. Of this total, 955 firms had employment of 999 or fewer employees and 12 had employment of 1000 employees or more. Thus, under this category and the associated size standard, the Commission estimates that the majority of wireless telecommunications carriers (except satellite) are small entities.

100. The Commission's own data—available in its Universal Licensing System—indicate that, as of August 31, 2018, there are 265 Cellular licensees that will be affected by our actions. The Commission does not know how many of these licensees are small, as the Commission does not collect that information for these types of entities. Similarly, according to internally-developed Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service (PCS), and Specialized Mobile Radio (SMR) Telephony services. Of this total, an estimated 261 have 1,500 or fewer employees, and 152 have more than 1,500 employees. Thus, using available data, we estimate that the majority of wireless firms can be considered small.

101. *Wireless Communications Services*. This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined "small business" for the wireless communications services (WCS) auction as an entity with average gross revenues of $40

million for each of the three preceding years, and a "very small business" as an entity with average gross revenues of $15 million for each of the three preceding years. The SBA has approved these small business size standards. In the Commission's auction for geographic area licenses in the WCS, there were seven winning bidders that qualified as "very small business" entities and one that qualified as a "small business" entity.

102. *1670–1675 MHz Services*. This service can be used for fixed and mobile uses, except aeronautical mobile. An auction for one license in the 1670–1675 MHz band was conducted in 2003. One license was awarded. The winning bidder was not a small entity.

103. *Wireless Telephony*. Wireless telephony includes cellular, personal communications services, and specialized mobile radio telephony carriers. The closest applicable SBA category is Wireless Telecommunications Carriers (except Satellite). Under the SBA small business size standard, a business is small if it has 1,500 or fewer employees. For this industry, U.S. Census Bureau data for 2012 show that there were 967 firms that operated for the entire year. Of this total, 955 firms had fewer than 1,000 employees and 12 firms had 1000 employees or more. Thus, under this category and the associated size standard, the Commission estimates that a majority of these entities can be considered small. According to Commission data, 413 carriers reported that they were engaged in wireless telephony. Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees. Therefore, more than half of these entities can be considered small.

104. *Broadband Personal Communications Service.* The broadband personal communications services (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission initially defined a "small business" for C- and F-Block licenses as an entity that has average gross revenues of $40 million or less in the three previous calendar years. For F-Block licenses, an additional small business size standard for "very small business" was

added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years. These standards, defining "small entity" in the context of broadband PCS auctions, have been approved by the SBA. No small businesses within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90 winning bidders that claimed small business status in the first two C-Block auctions. A total of 93 bidders that claimed small business status won approximately 40 percent of the 1,479 licenses in the first auction for the D, E, and F Blocks. On April 15, 1999, the Commission completed the reauction of 347 C-, D-, E-, and F-Block licenses in Auction No. 22. Of the 57 winning bidders in that auction, 48 claimed small business status and won 277 licenses.

105. On January 26, 2001, the Commission completed the auction of 422 C and F Block Broadband PCS licenses in Auction No. 35. Of the 35 winning bidders in that auction, 29 claimed small business status. Subsequent events concerning Auction 35, including judicial and agency determinations, resulted in a total of 163 C and F Block licenses being available for grant. On February 15, 2005, the Commission completed an auction of 242 C-, D-, E-, and F-Block licenses in Auction No. 58. Of the 24 winning bidders in that auction, 16 claimed small business status and won 156 licenses. On May 21, 2007, the Commission completed an auction of 33 licenses in the A, C, and F Blocks in Auction No. 71. Of the 12 winning bidders in that auction, five claimed small business status and won 18 licenses. On August 20, 2008, the Commission completed the auction of 20 C-, D-, E-, and F-Block Broadband PCS licenses in Auction No. 78. Of the eight winning bidders for Broadband PCS licenses in that auction, six claimed small business status and won 14 licenses.

106. *Specialized Mobile Radio Licenses.* The Commission awards "small entity" bidding credits in auctions for Specialized Mobile Radio (SMR) geographic area licenses in the 800 MHz and 900 MHz bands to firms that had revenues of no more than $15 million in each of the three previous calendar years. The Commission awards "very small entity" bidding credits to firms that had revenues of

no more than $3 million in each of the three previous calendar years. The SBA has approved these small business size standards for the 900 MHz Service. The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction began on December 5, 1995, and closed on April 15, 1996. Sixty bidders claiming that they qualified as small businesses under the $15 million size standard won 263 geographic area licenses in the 900 MHz SMR band. The 800 MHz SMR auction for the upper 200 channels began on October 28, 1997, and was completed on December 8, 1997. Ten bidders claiming that they qualified as small businesses under the $15 million size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz SMR band. A second auction for the 800 MHz band conducted in 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.

107. The auction of the 1,053 800 MHz SMR geographic area licenses for the General Category channels was conducted in 2000. Eleven bidders won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band and qualified as small businesses under the $15 million size standard. In an auction completed in 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were awarded. Of the 22 winning bidders, 19 claimed small business status and won 129 licenses. Thus, combining all four auctions, 41 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small businesses.

108. In addition, there are numerous incumbent site-by-site SMR licenses and licensees with extended implementation authorizations in the 800 and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR service pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than $15 million. One firm has over $15 million in revenues. In addition, we do not know how many of these firms have 1,500 or fewer employees, which is the SBA-determined size standard. We assume, for purposes of this analysis, that all of the remaining extended implementation authorizations are held by small entities, as

defined by the SBA.

109. *Lower 700 MHz Band Licenses*. The Commission previously adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits. The Commission defined a "small business" as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $40 million for the preceding three years. A "very small business" is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $15 million for the preceding three years. Additionally, the lower 700 MHz Service had a third category of small business status for Metropolitan/Rural Service Area (MSA/RSA) licenses—"entrepreneur"—which is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $3 million for the preceding three years. The SBA approved these small size standards. An auction of 740 licenses (one license in each of the 734 MSAs/RSAs and one license in each of the six Economic Area Groupings (EAGs)) commenced on August 27, 2002, and closed on September 18, 2002. Of the 740 licenses available for auction, 484 licenses were won by 102 winning bidders. Seventy-two of the winning bidders claimed small business, very small business, or entrepreneur status and won a total of 329 licenses. A second auction commenced on May 28, 2003, closed on June 13, 2003, and included 256 licenses: 5 EAG licenses and 476 Cellular Market Area licenses. Seventeen winning bidders claimed small or very small business status and won 60 licenses, and nine winning bidders claimed entrepreneur status and won 154 licenses. On July 26, 2005, the Commission completed an auction of 5 licenses in the Lower 700 MHz band (Auction No. 60). There were three winning bidders for five licenses. All three winning bidders claimed small business status.

110. In 2007, the Commission reexamined its rules governing the 700 MHz band in the *700 MHz Second Report and Order*. An auction of 700 MHz licenses commenced January 24, 2008 and closed on March 18, 2008, which included, 176 Economic Area licenses in the A Block, 734 Cellular

Market Area licenses in the B Block, and 176 EA licenses in the E Block. Twenty winning bidders, claiming small business status (those with attributable average annual gross revenues that exceed $15 million and do not exceed $40 million for the preceding three years) won 49 licenses. Thirty-three winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed $15 million for the preceding three years) won 325 licenses.

111. *Upper 700 MHz Band Licenses*. In the *700 MHz Second Report and Order*, the Commission revised its rules regarding Upper 700 MHz licenses. On January 24, 2008, the Commission commenced Auction 73 in which several licenses in the Upper 700 MHz band were available for licensing: 12 Regional Economic Area Grouping licenses in the C Block and one nationwide license in the D Block. The auction concluded on March 18, 2008, with three winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed $15 million for the preceding three years) and winning five licenses.

112. *700 MHz Guard Band Licensees*. In 2000, in the *700 MHz Guard Band Order*, the Commission adopted size standards for "small businesses" and "very small businesses" for purposes of determining their eligibility for special provisions such as bidding credits and installment payments. A small business in this service is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $40 million for the preceding three years. Additionally, a very small business is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $15 million for the preceding three years. SBA approval of these definitions is not required. An auction of 52 Major Economic Area licenses commenced on September 6, 2000, and closed on September 21, 2000. Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced on February 13, 2001, and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small bu siness

that won a total of two licenses.

113. *Air-Ground Radiotelephone Service*. The Commission has previously used the SBA's small business size standard applicable to Wireless Telecommunications Carriers (except Satellite). The appropriate size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees. For this industry, U.S. Census Bureau data for 2012 show that there were 967 firms that operated for the entire year. Of this total, 955 firms had fewer than 1,000 employees and 12 had employment of 1,000 employees or more. There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and we estimate that almost all of them qualify as small entities under the SBA definition.

114. For purposes of assigning Air-Ground Radiotelephone Service licenses through competitive bidding, the Commission has defined "small business" as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding $40 million. A "very small business" is defined as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding $15 million. These definitions were approved by the SBA. In May 2006, the Commission completed an auction of nationwide commercial Air-Ground Radiotelephone Service licenses in the 800 MHz band (Auction No. 65). On June 2, 2006, the auction closed with two winning bidders winning two Air-Ground Radiotelephone Services licenses. Neither of the winning bidders claimed small business status.

115. *AWS Services (1710–1755 MHz and 2110–2155 MHz bands (AWS-1); 1915–1920 MHz, 1995–2000 MHz, 2020–2025 MHz and 2175–2180 MHz bands (AWS-2); 2155–2175 MHz band (AWS-3))*. For the AWS-1 bands, the Commission has defined a "small business" as an entity with average annual gross revenues for the preceding three years not exceeding $40 million, and a "very small business" as an entity with average annual gross revenues for the preceding three years not exceeding $15 million.

For AWS-2 and AWS-3, although we do not know for certain which entities are likely to apply for these frequencies, we note that the AWS-1 bands are comparable to those used for cellular service and personal communications service. The Commission has not yet adopted size standards for the AWS-2 or AWS-3 bands but proposes to treat both AWS-2 and AWS-3 similarly to broadband PCS service and AWS-1 service due to the comparable capital requirements and other factors, such as issues involved in relocating incumbents and developing markets, technologies, and services.

116. *3650–3700 MHz band*. In March 2005, the Commission released a *Report and Order and Memorandum Opinion and Order* that provides for nationwide, non-exclusive licensing of terrestrial operations, using contention-based technologies, in the 3650 MHz band (i.e., 3650–3700 MHz). As of April 2010, more than 1,270 licenses have been granted and more than 7,433 sites have been registered. The Commission has not developed a definition of small entities applicable to 3650–3700 MHz band nationwide, non-exclusive licenses. However, we estimate that the majority of these licensees are Internet Access Service Providers (ISPs) and that most of those licensees are small businesses.

117. *Fixed Microwave Services.* Microwave services include common carrier, private-operational fixed, and broadcast auxiliary radio services. They also include the Local Multipoint Distribution Service (LMDS), the Digital Electronic Message Service (DEMS), and the 24 GHz Service, where licensees can choose between common carrier and non-common carrier status. At present, there are approximately 36,708 common carrier fixed licensees and 59,291 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services. There are approximately 135 LMDS licensees, three DEMS licensees, and three 24 GHz licensees. The Commission has not yet defined a small business with respect to microwave services. The closest applicable SBA category is Wireless Telecommunications Carriers (except Satellite) and the appropriate size standard for this category under SBA rules is that such a business is small if it has 1,500 or fewer employees. For this industry, U.S.

Census Bureau data for 2012 show that there were 967 firms that operated for the entire year. Of this total, 955 firms had fewer than 1,000 employees and 12 had employment of 1,000 employees or more. Thus, under this SBA category and the associated size standard, the Commission estimates that a majority of fixed microwave service licensees can be considered small.

118. The Commission does not have data specifying the number of these licensees that have more than 1,500 employees, and thus is unable at this time to estimate with greater precision the number of fixed microwave service licensees that would qualify as small business concerns under the SBA's small business size standard. Consequently, the Commission estimates that there are up to 36,708 common carrier fixed licensees and up to 59,291 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services that may be small and may be affected by the rules and policies adopted herein. We note, however, that the common carrier microwave fixed licensee category does include some large entities.

119. *Broadband Radio Service and Educational Broadband Service.* Broadband Radio Service systems, previously referred to as Multipoint Distribution Service (MDS) and Multichannel Multipoint Distribution Service (MMDS) systems and "wireless cable," transmit video programming to subscribers and provide two-way high-speed data operations using the microwave frequencies of the Broadband Radio Service (BRS) and Educational Broadband Service (EBS) (previously referred to as the Instructional Television Fixed Service (ITFS)).

120. *BRS* - In connection with the 1996 BRS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of no more than $40 million in the previous three calendar years. The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (BTAs). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At

this time, we estimate that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent BRS licensees that are considered small entities. After adding the number of small business auction licensees to the number of incumbent licensees not already counted, we find that there are currently approximately 440 BRS licensees that are defined as small businesses under either the SBA or the Commission's rules.

121. In 2009, the Commission conducted Auction 86, the sale of 78 licenses in the BRS areas. The Commission offered three levels of bidding credits: (1) a bidder with attributed average annual gross revenues that exceed $15 million and do not exceed $40 million for the preceding three years (small business) received a 15 percent discount on its winning bid; (2) a bidder with attributed average annual gross revenues that exceed $3 million and do not exceed $15 million for the preceding three years (very small business) received a 25 percent discount on its winning bid; and (3) a bidder with attributed average annual gross revenues that do not exceed $3 million for the preceding three years (entrepreneur) received a 35 percent discount on its winning bid. Auction 86 concluded in 2009 with the sale of 61 licenses. Of the ten winning bidders, two bidders that claimed small business status won four licenses; one bidder that claimed very small business status won three licenses; and two bidders that claimed entrepreneur status won six licenses.

122. *EBS* - The SBA's Cable Television Distribution Services small business size standard is applicable to EBS. There are presently 2,436 EBS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in this analysis as small entities. Thus, we estimate that at least 2,336 licensees are small businesses. Since 2007, Cable Television Distribution Services have been defined within the broad economic census category of Wired Telecommunications Carriers. Wired Telecommunications Carriers are comprised of establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or

lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies." The SBA's small business size standard for this category is all such firms having 1,500 or fewer employees. U.S. Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees. Thus, under this size standard, the majority of firms in this industry can be considered small.

4. Satellite Service Providers

123. *Satellite Telecommunications.* This category comprises firms "primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications." Satellite telecommunications service providers include satellite and earth station operators. The category has a small business size standard of $32.5 million or less in average annual receipts, under SBA rules. For this category, U.S. Census Bureau data for 2012 show that a total of 333 firms operated for the entire year. Of this total, 299 firms had annual receipts of less than $25 million. Consequently, we estimate that the majority of satellite telecommunications providers are small entities.

124. *All Other Telecommunications.* The **"**All Other Telecommunications" category is comprised of establishments that are primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or voice over Internet protocol (VoIP) services via client-supplied

telecommunications connections are also included in this industry. The SBA has developed a small business size standard for "All Other Telecommunications," which consists of all such firms with gross annual receipts of $32.5 million or less. For this category, U.S. Census Bureau data for 2012 show that there were 1,442 firms that operated for the entire year. Of these firms, a total of 1,400 had gross annual receipts of less than $25 million. Consequently, a majority of "All Other Telecommunications" firms potentially affected by our action can be considered small.

5. Cable Service Providers

125. *Cable and Other Subscription Programming.* This industry comprises establishments primarily engaged in operating studios and facilities for the broadcasting of programs on a subscription or fee basis. The broadcast programming is typically narrowcast in nature (e.g. limited format, such as news, sports, education, or youth-oriented). These establishments produce programming in their own facilities or acquire programming from external sources. The programming material is usually delivered to a third party, such as cable systems or direct-to-home satellite systems, for transmission to viewers. The SBA size standard for this industry establishes as small, any company in this category that has annual receipts of $38.5 million or less. According to 2012 U.S. Census Bureau data, 367 firms operated for the entire year. Of that number, 319 operated with annual receipts of less than $25 million a year and 48 firms operated with annual receipts of $25 million or more. Based on this data, the Commission estimates that the majority of firms operating in this industry are small.

126. *Cable Companies and Systems (Rate Regulation).* The Commission has developed its own small business size standards for the purpose of cable rate regulation. Under the Commission's rules, a "small cable company" is one serving 400,000 or fewer subscribers nationwide. Industry data indicate that there are currently 4,600 active cable systems in the United States. Of this total, all but eleven cable operators nationwide are small under the 400,000-subscriber size standard. In addition,

under the Commission's rate regulation rules, a "small system" is a cable system serving 15,000 or fewer subscribers. Current Commission records show 4,600 cable systems nationwide. Of this total, 3,900 cable systems have fewer than 15,000 subscribers, and 700 systems have 15,000 or more subscribers, based on the same records. Thus, under this standard as well, we estimate that most cable systems are small entities.

127. *Cable System Operators (Telecom Act Standard).* The Communications Act of 1934, as amended, also contains a size standard for small cable system operators, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed $250,000,000." There are approximately 52,403,705 cable video subscribers in the United States today. Accordingly, an operator serving fewer than 524,037 subscribers shall be deemed a small operator if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed $250 million in the aggregate. Based on available data, we find that all but nine incumbent cable operators are small entities under this size standard. We note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed $250 million. Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed $250 million, we are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act.

6. All Other Telecommunications

128. *Electric Power Generators, Transmitters, and Distributors.* This U.S. industry is comprised of establishments that are primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This

industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or voice over Internet protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry. The closest applicable SBA category is "All Other Telecommunications." The SBA's small business size standard for "All Other Telecommunications" consists of all such firms with gross annual receipts of $32.5 million or less. For this category, U.S. Census data for 2012 show that there were 1,442 firms that operated for the entire year. Of these firms, a total of 1,400 had gross annual receipts of less than $25 million. Consequently, we estimate that under this category and the associated size standard the majority of these firms can be considered small entities.

E. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

129. We expect the rules adopted in the *Report and Order* will impose new or additional reporting, recordkeeping, and/or other compliance obligations on small entities. In an effort to develop better quality, more useful, and more granular broadband deployment data to advance our statutory universal service obligations, we conclude it is necessary to create a new data collection, calculated to produce broadband deployment maps that will allow the Commission to precisely target scarce universal service dollars to where broadband service is lacking. The Commission also modifies aspects of the Form 477 collection to increase the accuracy of the information collected and to streamline the current reporting requirements to reduce the burdens on filers. We are cognizant of the need to ensure that the benefits resulting from use of the data outweigh the reporting burdens imposed on filers and believe the new collection requirement for fixed providers to submit broadband coverage polygons depicting the areas where they actually have broadband-capable networks and make fixed broadband

service available to end-user locations will benefit small entities as well as other providers. WISPA, for example, supports the reporting of broadband coverage polygons because it is less burdensome for its members, who are primarily small fixed wireless providers, and because it is a more accurate means of collecting deployment data.

130. We find that any additional burdens imposed by our new reporting approach will be relatively light for fixed providers in comparison to the significant benefit to be gained from more precise broadband deployment data. For example, many fixed providers are already familiar with GIS files because the Commission and other federal and state agencies use these files in other contexts. Further, some fixed providers already have internal GIS capabilities and/or vendor relationships for the production of GIS files, which should lessen the cost of compliance for small entities. The record suggests that several online resources and software options are available that can help fixed providers create their own polygons of service availability to comply with this requirement, which may lessen the need for small entities to hire professionals. Thus, we find that any additional burdens imposed by our new collection will be relatively light for fixed providers in comparison to the significant benefit to be gained from more accurate and precise broadband deployment data. Although the Commission cannot quantify the cost of compliance with the requirements in the *Report and Order,* we believe the streamlining and removal of certain reporting requirements should reduce the compliance burdens for small entities that are required to complete Form 477.

F. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

131. The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or

timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.

132. The Commission's actions to modernize and streamline the Form 477 collection and reduce the compliance burdens for filers include measures that should benefit small entities. In considering the comments in the record, we were mindful of the time, money, and resources that some small entities incur to complete the current Form 477. Our actions adopting the filing of broadband coverage polygons should provide some economic relief to small entities when compared to the burdens imposed by the current census-block reporting requirement. We also direct WCB, in coordination with OEA, WTB, and IB, to determine whether any category of very small fixed providers (e.g., those with less than 250 subscribers (or 1,500 or some other small set number of subscribers) and who are not eligible telecommunications carriers (ETCs) under the USF program) should have additional time in filing their initial reports. In addition, to lessen the burdens on small fixed providers, the Commission and USAC intend to have service-desk help available, as well as clear instructions on the form for the new collection, to aid filers in preparing their broadband coverage polygons. We also believe our actions to streamline the filing process and eliminate certain filing requirements will benefit small entities by reducing the administrative costs they incur to file Form 477.

133. The Commission considered but declined to adopt a requirement to collect fixed broadband deployment data at the street segment level. With a street-level approach, smaller providers would encounter much greater burdens to report deployment data with more precision. For the reasons discussed in the *Report and Order*, we agree with WISPA that a street-level approach is not appropriate for fixed wireless providers. In addition, we declined to establish technical standards for fixed providers to follow in determining whether fixed broadband is available in an area. Imposing fixed

standards could result in increased costs and burdens for small entities and could risk undermining the expertise and on-the-ground knowledge of fixed providers, possibly resulting in less accurate maps. The unique knowledge of fixed broadband providers about their networks puts them in the best position to determine where broadband is available in their service areas.

V. PROCEDURAL MATTERS

134. *Paperwork Reduction Act*. The *Report and Order* contains new and modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. It will be submitted to the Office of Management and Budget (OMB) for review under section 3507(d) of the PRA. The Commission, as part of its continuing effort to reduce paperwork burdens, will invite the general public and the Office of Management and Budget to comment on the information collection requirements contained in the *Report and Order*, as required by the PRA. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198 (44 U.S.C. 3506(c)(4)), we seek specific comment on how we might further reduce the information collection burden for small business concerns with fewer than 25 employees.

135. *Congressional Review Act*. The Commission will send a copy of this Report & Order to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *See* 5 U.S.C. § 801(a)(1)(A).

136. People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

VI. CLAUSES

137. Accordingly, IT IS ORDERED that, pursuant to Sections 1-4, 7, 201, 254, 301, 303, 309, 319, and 332 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 157, 201, 254, 301,

303, 309, 319, and 332, this *Report and Order and Second Further Notice of Proposed Rulemaking* IS ADOPTED.

138. IT IS FURTHER ORDERED that Parts 1, 43, and 54 of the Commission's rules ARE AMENDED as set forth in Appendix A.

139. IT IS FURTHER ORDERED that the *Report and Order* SHALL BE effective 30 days after publication in the Federal Register, except for rules and portions of the *Report and Order* that have new or modified information collection requirements that must be approved by the Office of Management and Budget (OMB), which will be effective 30 days after the announcement in the Federal Register of OMB approval of those requirements. OMB approval is necessary for the information collection requirements in 47 CFR §§ 54.1401, 54.1402(b), (c), (d)(2), and (e), plus paragraphs 44-51 and 57-65 of the *Report and Order*.

140. IT IS FURTHER ORDERED that the Commission's Consumer & Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of the *Report and Order* to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A).

141. IT IS FURTHER ORDERED that the Commission's Consumer & Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this *Report and Order and Second Further Notice of Proposed Rulemaking*, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

List of Subjects

47 CFR Part 1

Administrative practice and procedure, Broadband, Reporting and recordkeeping requirements, Telecommunications.

47 CFR Part 43

Communications common carriers, Reporting and recordkeeping requirements.

47 CFR Part 54

Broadband, Reporting and recordkeeping requirements, Universal service fund.

FEDERAL COMMUNICATIONS COMMISSION

Marlene Dortch,

Secretary.

Final Rules

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR part 1 as follows:

PART 1 – PRACTICE AND PROCEDURE

1. The authority citation for part 1 continues to read as follows:

AUTHORITY: 47 U.S.C. 151, 154(i) and (j), 155, 157, 225, 227, 303(r), 309, 1403, 1404, 1451, and 1452.

Subpart V—Commission Collection of Advanced Telecommunications Capability Data and Local Exchange Competition Data

2. Revise the subpart V heading to read as set forth above.

3. Revise § 1.7000 to read as follows:

§1.7000 Purpose.

The purposes of this subpart are to set out the terms by which certain commercial and government-controlled entities report data to the Commission concerning (a) the provision of wired and wireless local telephone services and interconnected Voice over Internet Protocol services, and (b) the deployment of advanced telecommunications capability, as defined in 47 U.S.C. 1302, and services that are competitive with advanced telecommunications capability.

4. Amend § 1.7001 by revising paragraphs (a), (b), and (d) to read as follows:

§ 1.7001 Scope and content of filed reports.

(a) *Definitions*. Terms used in this subpart have the following meanings:

(1) *Broadband connection*. A wired line, wireless channel, or satellite service that terminates at an end user location or mobile device and enables the end user to receive information from and/or send information to the Internet at information transfer rates exceeding 200 kilobits per second (kbps) in at least one direction.

(2) *Facilities-based provider*. An entity is a *facilities-based provider* of a service if it supplies such service using facilities that satisfy any of the following criteria:

(i) Physical facilities that the entity owns and that terminate at the end-user premises;

(ii) Facilities that the entity has obtained the right to use from other entities, such as dark fiber or satellite transponder capacity as part of its own network, or has obtained;

(iii) Unbundled network element (UNE) loops, special access lines, or other leased facilities that the entity uses to complete terminations to the end-user premises;

(iv) Wireless service for which the entity holds a license or that the entity manages or has obtained the right to use via a spectrum leasing arrangement or comparable arrangement

pursuant to subpart X of this Part (§§ 1.9001-1.9080); or

(v) Unlicensed spectrum.

(3) *End user*. A residential, business, institutional, or government entity that subscribes to a service, uses that service for its own purposes, and does not resell that service to other entities.

(4) *Local telephone service*. Telephone exchange or exchange access service (as defined in 47 U.S.C. 153(20 and (54)) provided by a common carrier or its affiliate (as defined in 47 U.S.C. 153(2)).

(5) *Mobile telephony service*. Mobile telephony (as defined in § 20.15 of this chapter) provided to end users by a commercial mobile radio service (CMRS) provider.

(b) The following entities shall file with the Commission a completed FCC Form 477, in accordance with the Commission's rules and the instructions to the FCC Form 477:

(1) Facilities-based providers of broadband service;

(2) Providers of local telephone service;

(3) Facilities-based providers of mobile telephony service; and

(4) Providers of Interconnected Voice over Internet Protocol (VoIP) service (as defined in § 9.3 of this chapter) to end users.

* * * * *

(d) Disclosure of data contained in FCC Form 477 will be addressed as follows:

(1) Emergency operations contact information contained in FCC Form 477 is information that should not be routinely available for public inspection pursuant to section 0.457 of this chapter, in addition to other information that should not be routinely available for public inspection

pursuant to § 0.457.

(2)(i) Respondents may request that provider-specific subscription information in FCC Form 477 filings be treated as confidential and be withheld from public inspection by so indicating on Form 477 at the time that they submit such data.

(ii) The Commission will release the following information in FCC Form 477 filings to the public, and respondents may not request confidential treatment of such information:

(A) Provider-specific mobile deployment data;

(B) Data regarding minimum advertised or expected speed for mobile broadband services; and

(C) Location information that is necessary to permit accurate broadband mapping, including crowdsourcing or challenge processes.

(3) Respondents seeking confidential treatment of any other data contained in FCC Form 477 must submit a request that the data be treated as confidential with the submission of their Form 477 filing, along with their reasons for withholding the information from the public, pursuant to § 0.459 of this chapter.

(4) The Commission shall make all decisions regarding non-disclosure of provider-specific information, except that the Chiefs of the International Bureau, Wireless Telecommunications Bureau, Wireline Competition Bureau, or Office of Economics and Analytics may release provider-specific information to:

(i) A state commission, provided that the state commission has protections in place that would preclude disclosure of any confidential information,

(ii) ''Eligible entities,'' as those entities are defined in the Broadband Data Improvement Act, in an aggregated format and pursuant to confidentiality conditions prescribed by the Commission, and

(iii) Others, to the extent that access to such data can be accomplished in a manner that addresses concerns about the competitive sensitivity of the data and precludes public disclosure of any confidential information.

* * * * *

5. Add § 1.7003 to subpart V to read as follows:

§ 1.7003 Authority to update FCC Form 477.

The International Bureau, Wireless Telecommunications Bureau, Wireline Competition Bureau, and Office of Economics and Analytics may update the specific content of data to be submitted on FCC Form 477 as necessary to reflect changes over time in transmission technologies, spectrum usage, Geographical Information Systems (GIS) and other data storage and processing functionalities, and other related matters; and may implement any technical improvements or other clarifications to the filing mechanism and forms.

PART 43 – REPORTS OF COMMUNICATIONS COMMON CARRIERS, PROVIDERS OF INTERNATIONAL SERVICES AND CERTAIN AFFILIATES

6. The authority citation for part 43 continues to read as follows:

Authority: 47 U.S.C. 35-39, 154, 211, 219, 220; sec. 402(b)(2)(B), (c), Pub. L. 104-104, 110 Stat. 129.

§ 43.11 [Removed]

7. Remove § 43.11.

PART 54 — UNIVERSAL SERVICE

8. The authority citation for part 54 continues to read as follows:

Authority: 47 U.S.C. 151, 154(i), 155, 201, 205, 214, 219, 220, 254, 303(r), 403, and 1302, unless otherwise noted.

9. Add subpart N, consisting of §§ 54.1400 through 54.1403, to read as follows:

Subpart N—The Digital Opportunity Data Collection

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Subpart N—The Digital Opportunity Data Collection

§ 54.1400 Purpose.

The purpose of this subpart is to set out the terms by which facilities-based providers report data to the Universal Service Administrative Company concerning the deployment of fixed broadband connections for use in administration of the Universal Service program and related matters.

§ 54.1401 Frequency of reports.

Entities subject to the provisions of this subpart shall file initial reports pursuant to the Digital Opportunity Data Collection within six months after the Office of Economics and Analytics issues a public notice announcing the availability of the new Digital Opportunity Data Collection platform. Thereafter,

Digital Opportunity Data Collection filers must submit updates within six months of completing any new, or discontinuing existing, fixed broadband deployments; acquiring new, or selling existing, network facilities that have fixed broadband connections; or changing existing offerings that change the data submitted on their current Digital Opportunity Data Collection filing. Entities that become subject to the provisions of this subpart for the first time after the initial filing deadline shall file their initial reports within six months after they become eligible and shall report data for that initial period. All eligible entities must file a certification once per year on or before June 30th that as of December 31st of the previous year all of the filers' data continues to be accurate, subject to any up dates made by the filer through June 30th of that calendar year.

§ 54.1402 Scope and content of filed reports.

(a)(1) *Definitions*. The definitions in § 1.7001(a) of this chapter apply to terms used in this subpart.

(2) *Fixed broadband connection*. A broadband connection that cannot be used to provide a mobile service (as defined in 47 U.S.C. 153(33)) and does not terminate to mobile stations (as defined in 47 U.S.C. 153(34)).

(b) All facilities-based providers of fixed broadband connections shall file with USAC, pursuant to the timetable in §54.1401 of this subpart, a completed filing as part of the Digital Opportunity Data Collection in accordance with the rules of the Commission and the instructions to the Digital Opportunity Data Collection.

(c) All filers in the Digital Opportunity Data Collection shall include in each report a certification signed by an appropriate official of the filer (as specified in the Digital Opportunity Data Collection's instructions) and shall report the title of their certifying official.

(d)(1) All data contained in Digital Opportunity Data Collection filings will be routinely available for

public disclosure, except for emergency operations contact information and other information that should not be routinely available for public inspection pursuant to § 0.457 of this chapter.

(2) Filers seeking confidential treatment of any data contained in the Digital Opportunity Data Collection must submit a request that the data be treated as confidential with the submission of their filing, along with their reasons for withholding the information from the public, pursuant to §0.459 of this chapter.

(3) The Commission shall make all decisions regarding non-disclosure of confidential information.

(e) Filers shall file a revised version of their Digital Opportunity Data Collection filing if they discover a significant reporting error in their data.

(f) Failure to file in the Digital Opportunity Data Collection in accordance with the Commission's rules and the instructions to the Digital Opportunity Data Collection may lead to enforcement action pursuant to the Act and any other applicable law.

§ 54.1403 Authority to update the Digital Opportunity Data Collection.

The Office of Economics and Analytics, in consultation with the Wireline Competition Bureau, the Wireless Telecommunications Bureau, and the International Bureau, may update the fixed broadband technologies reported in the Digital Opportunity Data Collection as necessary to reflect changes over time in technology, and the Office may implement any technical improvements, changes to the format and type of data submitted, or other clarifications to the Digital Opportunity Data Collection and its instructions.

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