§ 63.1413(a)(3); or following the procedures in § 63.1413(e)(2); or following the procedures in § 63.1413(h)(3), shall submit a Precompliance Report according to the schedule described in paragraph (d)(1) of this section. The Precompliance Report shall contain the information specified in paragraphs (d)(2) through (11) of this section, as appropriate.

* * * * *

(8) If an owner or operator is complying with the mass emission limit specified in § 63.1405(b)(2)(i), the sample of production records specified in § 63.1413(h)(3) shall be submitted in the Precompliance Report.

* * * * *

(e) * * *

(1) The results of any emission point applicability determinations, performance tests, design evaluations, inspections, continuous monitoring system performance evaluations, any other information used to demonstrate compliance, and any other information, as appropriate, required to be included in the Notification of Compliance Status under 40 CFR part 63, subpart SS and subpart WW, as referred to in § 63.1404 for storage vessels; under 40 CFR part 63, subpart SS, as referred to in § 63.1405 for continuous process vents; under § 63.1416(f)(1) through (3), (5)(i) and (ii), and (6)(i) and (ii) for continuous process vents; under § 63.1416(d)(1) for batch process vents; and under § 63.1416(e)(1) for aggregate batch vent streams. In addition, each owner or operator shall comply with paragraphs (e)(1)(i) and (ii) of this section.

* * * * *

(f) *Periodic Reports.* Except as specified in paragraph (f)(12) of this section, a report containing the information in paragraph (f)(2) of this section or containing the information in paragraphs (f)(3) through (11) and (13) through (15) of this section, as appropriate, shall be submitted semiannually no later than 60 days after the end of each 180 day period. In addition, for equipment leaks subject to § 63.1410, the owner or operator shall submit the information specified in 40 CFR part 63, subpart UU, and for heat exchange systems subject to § 63.1409, the owner or operator shall submit the information specified in § 63.1409. Section 63.1415 shall govern the use of monitoring data to determine compliance for emissions points required to apply controls by the provisions of this subpart.

(1) Except as specified in paragraph (f)(12) of this section, a report containing the information in paragraph (f)(2) of this section or containing the information in paragraphs (f)(3) through (11) and (13) through (15) of this section, as appropriate, shall be submitted semiannually no later than 60 days after the end of each 180 day period. The first report shall be submitted no later than 240 days after the date the Notification of Compliance Status is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status is due. Subsequent reports shall cover each preceding 6-month period.

(2) If none of the compliance exceptions specified in paragraphs (f)(3) through (11) and (13) through (15) of this section occurred during the 6-month period, the Periodic Report required by paragraph (f)(1) of this section shall be a statement that the affected source was in compliance for the preceding 6-month period and no activities specified in paragraphs (f)(3) through (11) and (13) through (15) of this section occurred during the preceding 6-month period.

* * * * *

(5) If there is a deviation from the mass emission limit specified in § 63.1406(a)(1)(iii) or (a)(2)(iii), § 63.1407(b)(2), or § 63.1408(b)(2), the following information, as appropriate, shall be included:

* * * * *

(12) * * *

(ii) The quarterly reports shall include all information specified in paragraphs (f)(3) through (11) and (13) through (15) of this section applicable to the emission point for which quarterly reporting is required under paragraph (f)(12)(i) of this section. Information applicable to other emission points within the affected source shall be submitted in the semiannual reports required under paragraph (f)(1) of this section.

* * * * *

(14) If there is a deviation from the mass emission limit specified in § 63.1405(b)(2)(i), the report shall include the daily average emission rate calculated for each operating day for which a deviation occurred.

(15) If there is a deviation from the emission rate limit specified in § 63.1405(b)(2)(ii) or (iii), the report shall include the following information for each operating day for which a deviation occurred:

(i) The calculated average hourly emission rate.

(ii) The individual hourly emission rate data points making up the average hourly emission rate.

* * * * *

(h) * * *

(7) Whenever a continuous process vent becomes subject to control requirements under § 63.1405, as a result of a process change, the owner or operator shall submit a report within 60 days after the performance test or applicability assessment, whichever is sooner. The report may be submitted as part of the next Periodic Report required by paragraph (f) of this section.

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[FR Doc. 2017–17514 Filed 8–23–17; 8:45 am]

BILLING CODE 6560–50–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 1, 20 and 43

[WC Docket No. 11–10; FCC 17–103]

Modernizing the FCC Form 477 Data Program

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: In this document, the Federal Communications Commission (Commission) seeks comment on how to revise the current FCC Form 477 collection of voice and broadband subscription and deployment data to increase its usefulness to the Commission, Congress, the industry, and the public.

DATES: Comments are due on or before September 25, 2017 and reply comments are due on or before October 10, 2017. If you anticipate that you will be submitting comments, but find it difficult to do so within the period of time allowed by this document, you should advise the contact listed below as soon as possible.

ADDRESSES: You may submit comments, identified by WC Docket No. 11–10, by any of the following methods:

- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the instructions for submitting comments.
- *Federal Communications Commission's Web site: http://fjallfoss.fcc.gov/ecfs2/.* Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: *http://fjallfoss.fcc.gov/ecfs2/.*
- *Paper Filers:* Parties who choose to file by paper must file an original and one copy of each filing.
- Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

○ All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St. SW., Room TW–A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of *before* entering the building.

▪ Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.

▪ U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th St. SW., Washington, DC 20554.

• *People With Disabilities:* Contact the FCC to request reasonable accommodations (accessible format documents, sign language interpreters, CART, etc.) by email: *FCC504@fcc.gov* or phone: (202) 418–0530 or TTY: (202) 418–0432.

FOR FURTHER INFORMATION CONTACT: Thomas Parisi, Wireline Competition Bureau, (202) 418–1356 or TTY: (202) 418–0484.

SUPPLEMENTARY INFORMATION: This is a synopsis of the Commission's Further Notice of Proposed Rulemaking (FNPRM or Further Notice) in WC Docket No. 11–10; FCC 17–103, adopted on August 3, 2017 and released on August 4, 2017. The full text of this document is available for public inspection during regular business hours in the FCC Reference Center, Room CY–A257, 445 12th St. SW., Washington, DC 20554 or at the following Internet address: *https://www.fcc.gov/document/fcc-proposes-improvements-broadbandvoice-services-data-collection.*

I. Introduction

1. The Commission initiates a further proceeding to take a focused look at the Commission's Form 477—the principal tool used by the Commission to gather data on communications services, including broadband services, to help inform policymaking. The Commission's goal in this Further Notice of Proposed Rulemaking is two-pronged: To examine its experience based its current data collection in order to collect better and more accurate information on Form 477; and, to explore how the Commission can revise other aspects of the data collection to increase its usefulness to the Commission, Congress, the industry, and the public. These steps continue the Commission's efforts to improve the value of the data the Commission continues to collect, while also identifying and eliminating unnecessary or overly burdensome filing requirements.

II. Discussion

2. Accurate and reliable data on fixed and mobile broadband and voice services are critical to the Commission's ability to meet its goal of decision-making based on sound and rigorous data analysis. Others, including Congressional and state and Tribal policymakers, researchers, and consumers, also rely on the data the Commission collects for a variety of purposes. In support of these efforts, the Commission seeks comment first on ways in which it might change aspects of the Form 477 to increase the quality and accuracy of the information the Commission will continue to collect. The Commission also seeks comment on ways in which the Commission might streamline its current Form 477 requirements and thereby reduce the burdens on filers. The Commission begins below with its proposals for improving and streamlining the Form 477 data collection for mobile services, before turning to a discussion of fixed services.

3. In undertaking this examination of the Form 477 data collection, one of the primary objectives is to ensure that the data the Commission collects are closely aligned with the uses to which they will be put, both by the Commission and by outside stakeholders. As a preliminary issue, the Commission seeks comment on those uses to inform its analysis. For each of the issues considered below, the Commission asks for comment on the relationship between potential changes to the collection and the current or expected need for, and use of, the data. Specifically, the Commission asks for comment on whether and how revisions to the collection would better support an existing or expected use of data. In addition to the Commission's many uses for the data, the Commission understands that external stakeholder uses of the data include state public utility commission regulatory and program analysis, academic research, and state and local broadband deployment and adoption analysis. Are there other external uses of the data for which the Commission should account if the Commission makes changes to the collection? Is the existing data collection well designed for Commission and stakeholder use? Will the revisions under consideration in the FNPRM better align the data the Commission collects with the use of those data? Are there elements of the collection not discussed below that should be considered for elimination because of redundancy or insufficient usefulness?

4. Having accurate and reliable mobile broadband deployment data is critical to policymakers as well as to consumers. However, obtaining meaningful data in the mobile context is challenging. A user's mobile service experience is inherently variable and is affected by various factors, such as terrain, location (*e.g.,* whether the user is indoors or outdoors or distance from a tower), weather, congestion, and the type of connected device. In this Further Notice, the Commission seeks comment on the tradeoffs among the following possible approaches for improving the mobile broadband deployment data the Commission collects. The Commission also seeks input on whether the characteristics or properties of next generation mobile technologies such as 5G may require modifications to the current Form 477 requirements.

5. The current Form 477 data on deployment of mobile broadband services represents a significant improvement over the data that were previously available from earlier data sources. The *2013 Form 477 Order,* 78 FR 49126, August 13, 2013, which provides the framework for the current collection, required for the first time that facilities-based mobile broadband providers directly submit deployment data, representing nationwide coverage areas, as well as required minimum advertised or expected speeds for those coverage areas. Coverage areas are broken down by technology and spectrum band. The current data collection is intended to represent where consumers should expect to receive mobile broadband services at the minimum speeds set by the providers in their marketplace, and it was designed to minimize burdens and allow flexibility for providers. Providers, and not the Commission, decide the speeds of service they offer and may choose among different reasonable bases for substantiating their Form 477 filings.

6. The Commission experience in analyzing and working with the Form 477 data has shown, however, that the Form 477 data could be improved further to better understand the mobile broadband service that consumers actually experience. As noted above, service providers are required to file, and certify the accuracy of, shapefiles representing those areas where, for a specified technology, ''users should expect the minimum advertised upload and download data speeds associated with that network technology.'' Questions have arisen in various

contexts regarding the bases for certain filings and the extent to which those filings reflect actual user experience. The Commission to date has not systematically examined the precise underlying methodologies that are used by service providers in generating their data nor has it investigated whether actual consumer experience has diverged substantially from the Form 477 filings. Moreover, providers' minimum advertised or expected speeds have, to date, been treated as confidential, limiting the ability of policymakers and consumers to compare offerings among service providers from this data collection. Also, because service providers select their own methodologies for determining the coverage and speeds provided, these methodologies tend to vary among providers. These varying methodologies make it difficult for the Commission to compare coverage areas and minimum reported speeds, as the underlying meanings of what the coverage and speed information depict may differ among service providers. Also, current Form 477 filings typically do not include meaningful information about the methodologies by which service providers are generating their coverage contours.

7. *Enhancing the Current Data Collection.* The Commission seeks comment on the most appropriate way to retain the benefits of the current Form 477 data collection while introducing certain improvements. Is there a way by which the Commission can improve its current data collection to better understand and evaluate the actual consumer experience? As part of this approach, the Commission proposes to make service providers' minimum advertised or expected speeds publicly available (as described below in Section II.C.1.a.). Should the Commission require that filers submit their mobile deployment files as rasters (raster datasets ''are commonly used for representing and managing imagery, digital elevation models,'' or ''as a way to represent point, line, and polygon features.''), as well as, or instead of, shapefiles? Would the publication of the minimum advertised speed plus a more meaningful disclosure of the methodologies used by individual service providers allow a better reflection of actual consumer experience, and enhance the ability of policymakers and consumers to compare across service providers?

8. *Standardized Predictive Propagation Model.* In addition, the Commission seeks comment on requiring the submission of standardized propagation models for 4G LTE and later-generational technologies. Should the Commission require filers to use predictive propagation models to prepare their Form 477 deployment filings? If so, the Commission seeks comment on the extent to which it should take additional steps to specify possible eligible models for this purpose, and to standardize to some extent the output of those models as well as certain input parameters, with the goal of allowing more meaningful comparisons among service providers' mobile broadband deployment. For instance, should the Commission require that deployment shapefiles represent coverage at median speeds as well as speeds at the cell edge? If so, how should the Commission decide the specified speeds? Or, for instance, the Commission could specify a median download speed of 10 Mbps with an edge speed of 3 Mbps. Would this be appropriate, and if not, why not? Should the Commission also consider setting a cell edge upload speed such as a voice-over-LTE (VoLTE) requirement or an upload speed of 1 Mbps, or would an upload speed lower than 1 Mbps be appropriate, and if so, why?

9. What input parameters would the Commission need to standardize to allow for meaningful comparison among providers' LTE data submissions? As examples, should the Commission standardize, or specify reasonable ranges for, any of the following parameters, and, if so, why: (1) Location of cells in decimal latitude and longitude; (2) channel bandwidth in MHz; (3) signal strength; (4) signal quality with signal to noise ratio; (5) cell loading factors; or (6) terrain provided at a minimum resolution of three arc-seconds? What is the minimum set of parameters the Commission would need to standardize to allow for meaningful comparisons among service providers? To what extent should the providers be free to determine their speeds? To what extent would these predictive models provide the most accurate predictions of actual consumer experience? Would submissions of standardized predictive propagation models with prescribed parameters be too burdensome on smaller service providers? If so, how could the Commission ensure it receives standardized submissions from all providers without unduly burdening small service providers?

10. *Supplement Data Collections with On-The-Ground Data.* To better evaluate the actual consumer experience under the approaches above, the Commission also seeks comment on whether the Commission should require some ''on-the-ground'' data as part of any Form 477 data collection. The previously discussed data collections would be based on the coverage and speeds that theoretically should be achieved based on the service provider's decision on its own submitted propagation model, or some other reasonable methodology of its choosing, or a propagation model with standardized parameters as specified by the Commission. The collection of on-the-ground data would supplement the model-based data, improving the understanding of how the theoretical data relates to actual consumer experience. For instance, comparing results of theoretical propagation models and actual speed test data from Ookla indicate that propagation model parameters such as signal strength and speed may not be as closely correlated to the theoretical prediction when analyzing actual on-the-ground data in a particular geographic area. To more accurately reflect consumer experience, should some actual speed test data, aggregated up to a certain geographic level, be required? How could the Commission impose such a requirement without being unduly burdensome? Are there data of this kind that service providers already generate during the ordinary course of business which would be less burdensome to collect?

11. *Incorporation of New Mobile Wireless Technologies.* The *2013 Form 477 Order* provided for reporting by various existing technologies but did not provide for the reporting of data for new wireless technologies, such as 5G. Should the Commission require separate reporting of 5G mobile broadband deployment? Are there any aspects of 5G mobile broadband services that would suggest a need to represent deployment on Form 477 differently from 4G LTE and other mobile technologies? For instance, what are the specific use cases for mobile 5G service that the Commission should consider when collecting data to accurately represent 5G services being deployed to consumers? Should the Commission define 5G for the purposes of the Form 477 data collection, and, if so, how? Further, the Commission seeks comment on whether and, if so, in what circumstances, should the Form 477 take into account the deployment of facilities used in non-traditional ways in offering wireless services to consumers? For example, while Wi-Fi facilities traditionally have provided consumers with portable, not mobile, wireless connectivity, should the Form 477 track deployment of such facilities when offered to consumers in conjunction with resold mobile service? Might there develop other wireless services based

exclusively on the integration of numerous unlicensed facilities, such as Wi-Fi routers, that might warrant tracking in Form 477? If so, under what circumstances, and how should any such facilities deployment be reported?

12. *Mobile Satellite Broadband Service.* Satellite operators today may provide both fixed and mobile broadband service in the same spectrum. Considering the small but growing market for satellite mobile broadband, would it be appropriate to make additional modifications to Form 477 to include satellite broadband data in the mobile broadband data collection, and, if so, how?

13. The *2013 Form 477 Order,* while modernizing the data collection generally, also ensured that, for the first time, the Form 477 data collection would require the submission of mobile broadband deployment data. Specifically, the *2013 Form 477 Order* required that filers submit their mobile broadband deployment data by unique combinations of technology, spectrum band utilized, and minimum advertised or expected speed.

14. Under the current Form 477 reporting framework, facilities-based providers of mobile wireless broadband service are required to submit shapefiles depicting their broadband network coverage areas for each transmission technology deployed in each frequency band. Although the Commission in the *2013 Form 477 Order* concluded that collecting deployment information by spectrum band would enable it ''to analyze deployment in different spectrum bands'' and ''facilitate the formulation of sound and informed spectrum policies,'' to date the Commission has not used the spectrum band information from Form 477 in its mobile broadband coverage analysis.

15. The Commission proposes to eliminate the requirement that mobile broadband providers submit their broadband deployment data by spectrum band. The Commission anticipates that eliminating the requirement to provide spectrum band information would greatly streamline and reduce the burdens on providers by reducing the number of shapefiles (and the amount of the associated underlying data processing) they are required to submit. For example, a provider currently providing LTE in four spectrum bands would only have to submit one shapefile representing its coverage rather than four shapefiles. Moreover, currently the Commission is not aware of any significant purpose for which these data might be used, although the Commission seeks comment on whether to continue to collect these data as they might be helpful for analysis in future proceedings. The Commission also seeks comment on any alternative approaches it should consider in lieu of adopting the streamlining proposal. For example, should the Commission consider adopting an alternative process under which providers might provide a list of bands and the associated amount of spectrum used to provision various mobile technologies by some geography, such as the CMA? Would this approach be less burdensome than the requirement to submit shapefiles for each spectrum band, particularly for smaller providers? Would this approach be beneficial by providing data that would allow the Commission to track more easily new spectrum deployments? Would it, for instance, provide a valuable source of information regarding the timing and provision of LTE on 3.5 GHz spectrum as well as the deployment of 5G services in the various low, mid, and high spectrum bands?

16. Additionally, the Commission seeks comment about whether to eliminate or modify the requirement that mobile broadband providers report coverage information for each technology deployed in their networks. The Commission seeks comment on whether the Commission should simplify the filing process by requiring that coverage maps be provided for four categories of technology—3G, 4G non-LTE, 4G LTE, and 5G—rather than by each specific broadband technology, and how these categories should be defined. Are these categories defined and distinct enough to ensure accurate and meaningful reporting? Are the distinctions between categories, such as 4G versus 5G, clear enough for the data to be meaningful and for respondents to accurately submit data? Will the Commission need to specify which technologies correspond to which category? Currently, the Form 477 instructions set out specific technology codes for nine different mobile technologies. In the Commission's experience, the separate reporting of coverage information by every one of these nine specific mobile technologies has not added useful information for the purposes of Commission decision-making, and such information is not currently used in its analysis of the data received. The Commission seeks comment on whether eliminating the requirement or modifying the information required to be reported in this manner would be a significant reduction in the filing burden.

17. The Commission turns next to its consideration of mobile broadband service availability data. Currently, mobile broadband providers are required to submit data where their service is ''available.'' To comply with this requirement, mobile broadband providers must submit a comma separated values (CSV) file of all census tracts where the provider's mobile wireless broadband service is advertised and available to actual and potential subscribers. This requirement was designed to identify those geographic areas where a service provider has coverage but is not affirmatively offering service to subscribers through a local retail presence.

18. The Commission's experience with the collection of this information, however, has shown that the mobile broadband service availability data that providers submit generally do not reflect their local retail presence. Instead, the Commission has found that filers claim that their service is available beyond where they may have a local retail presence. In view of its experience with these data, the Commission seeks comment about the continued significance of local retail presence information. The Commission proposes eliminating the requirement to submit mobile broadband service availability data, as it is not producing accurate information about where services are affirmatively available to American consumers.

19. Next, the Commission seeks comment about how the Commission might revise its data collection on the deployment of mobile voice services. The *2013 Form 477 Order* required filers to submit the voice coverage boundaries ''where providers expect to be able to make, maintain, and receive voice calls.'' The Order also required that providers submit voice deployment shapefiles representing geographic coverage nationwide for each technology and frequency band. The Commission seeks comment about whether to revise these requirements.

20. The Commission continues to view the collection of mobile voice deployment data as important for tracking changes in the mobile landscape and informing the Commission's analysis of mobile voice services that are available to consumers. The Commission seeks comment, however, on whether there are ways that it may refine its collection of this information to reduce burdens for providers. Specifically, the Commission seeks comment on whether to eliminate the requirement to submit voice coverage data by technology and spectrum band. Does the Commission still need these data to accurately evaluate the mobile voice services that

are available to subscribers? Is the distinction between voice and broadband coverage significant, or do providers most often include mobile voice coverage wherever they have some form of broadband coverage? If providers include mobile voice coverage wherever they have broadband coverage, should the Commission revise its requirements to allow providers to simply check a box indicating that they provide voice coverage wherever they have a particular mobile broadband technology? How would the Commission account for areas in which a provider provides only mobile voice services?

21. To the extent that the collection of mobile voice deployment data by technology is still necessary, should the Commission continue to collect GSM, CDMA and Analog voice data separately? Should the Commission collect separate voice deployment data for VoLTE and mobile switched voice? The Commission anticipates that revising the data collection in this manner would help the Commission assess where providers claim to have VoLTE coverage and assist efforts in the areas of emergency response. The Commission seeks comment on the importance of collecting information about VoLTE coverage.

22. The Commission seeks comment on how it can improve the data collected on mobile broadband and voice subscription. Form 477 currently requires that mobile voice and broadband subscriber information be submitted at the state level. Given the aggregate nature of the current data collection, the Commission currently uses telephone number-based Number Resource Utilization/Forecast (NRUF) data for its subscriber and market share analysis in secondary market transaction review and other proceedings. The NRUF data, however, have certain limitations; for example, NRUF data are more a measure of the number of mobile wireless connections than subscribers. It is increasingly more difficult to determine the number of mobile subscribers through the use of NRUF data because consumers are more likely to use more than one mobile device that have been assigned telephone numbers—particularly non-voice devices, such as Internet access devices (*e.g.,* wireless modem cards and mobile Wi-Fi hotspots), e-readers, tablets, and telematics systems. Also, predicting the number of devices using this dataset is difficult as some mobile devices do not have telephone numbers assigned to them. Moreover, because a subscriber can move and retain the same mobile number, subscribers may not be attributed to the state in which the subscriber receives or pays for service in some cases (someone with an 812 Southern Indiana area code may live in California, for example, but is attributed to Indiana for NRUF purposes.).

23. With respect to the existing Form 477 subscription data, because subscriber data are collected at the state level, they are not sufficiently granular for meaningful evaluation of mobile service subscribership, as noted. Subscription data at a more disaggregated geographic level would significantly improve the Commission's ability to provide more accurate mobile competition analyses, particularly in the secondary market transactions review.

24. While the Commission's *2011 Form 477 NPRM,* 76 FR 10827, February 28, 2011, raised the issue of requiring mobile subscribership reporting at a more granular level, the *2013 Form 477 Order* did not change the state-level reporting requirement. In this FNPRM, the Commission proposes requiring mobile providers to aggregate their subscribership data to the census tract level, based on each subscriber's billing address. This information would be collected as CSV files and would provide a more granular understanding of where consumers are subscribing to service.

25. Would collecting subscribership data at the census-tract level be sufficient to improve the quality of the Commission's data on subscribership? Are subscribers' billing addresses sufficiently correlated with the areas in which subscribers use their mobile wireless devices to be meaningful in the Commission's competitive analyses, and if not, what else should the Commission consider? Does the answer differ for residential and business accounts? Should the Commission consider requiring subscribership data for a different geographic area? For example, while reporting subscribership at the census-tract level would parallel the requirement for fixed service, what are the costs and benefits of reporting at a different geographic level? Whatever the geographic level adopted, the Commission seeks comment on whether using the billing address to assign subscribers to a census tract would be appropriate or, in the alternative, whether using the customer place of primary use address would be preferable as it may be less burdensome for providers. How should filers assign resold lines and broadband-only lines to the more granular geographic level? How should the Commission consider subscribership with respect to 5G services and the IoT? What metrics might the Commission consider in measuring subscribership?

26. For each census block in which providers submit fixed broadband deployment data, providers must report whether they deploy ''mass market/consumer'' service and/or ''business/enterprise/government'' service. All facilities-based fixed broadband providers, including cable operators, must report the census blocks where they make fixed broadband services available to residential and business customers at bandwidths exceeding 200 kbps in at least one direction. The Commission currently requires providers offering business/enterprise/government services to report the maximum downstream and upstream contractual or guaranteed data throughput rate (committed information rate (CIR)) available in each reported census block. If, in a particular block, providers offer business/enterprise/government services that do not have a contractual or guaranteed data throughput rate (*i.e.,* they are ''best efforts'' services), then the maximum downstream and upstream contractual or guaranteed data throughput rates should be reported as ''zero.''

27. The Commission seeks comment on whether to eliminate the separate reporting of available contractual or guaranteed data throughput rates for business/enterprise/government services, while maintaining separate indicators for mass market/consumer service and/or business/enterprise/government deployment. The Commission uses the Form 477 data in connection with many of its proceedings and programs, including the Broadband Progress Report, Universal Service Fund proceedings, the *2017 BDS Order,* 82 FR 25660, June 2, 2017, as well as mergers and other transactions. In the Commission's experience, the information collected for consumer/residential/mass market data already provides the necessary bandwidth data in each of these cases. The added CIR data for business/enterprise/government services do not appear to provide additional useful insight, while collecting these data as a separate category imposes an additional burden on filers. The Commission therefore proposes to discontinue the collection of CIR data and seeks comment on this proposal. The Commission also seeks comment on the best way to collect data reflecting the speeds offered to business/enterprise/government end-users in the absence of CIR data. Will the maximum advertised down- and upload speeds used for mass-market work for business best-efforts data collection? How can the

Commission capture speeds for business/enterprise/government end-users that are not best-efforts?

28. In interactions with filers, staff also have found that filers may be reporting CIR data incorrectly in some cases. It is not unusual for filers to report speeds as contractually guaranteed, when in fact they are best-efforts services. As the technology for providing business/enterprise/government services continues to evolve, along with the demand for them, providers increasingly use a variety of technologies in addition to TDM and fiber to serve customers, including mass market service, HFC, UNEs, and Dark Fiber—with and without contractual service level guarantees. If commenters believe that the Commission should continue to separately collect bandwidth information specific to contractually guaranteed business/enterprise/government services, how can the Commission ensure that providers accurately characterize their offerings? Should the Commission require filers to report the maximum bandwidths of business service offered in a given census block and indicate whether the service is best efforts and/or contractually guaranteed? Alternatively, should the Commission require fixed broadband providers to continue to report whether they offer business/enterprise/government services, but no longer report any speed data associated with such services? The Commission notes that this approach would lessen the burden on filers, but would it also help ensure more accurate reporting? Would information about business/enterprise/government services still be valuable in the absence of speed data, or would it be better to remove the requirement to report these data altogether?

29. Facilities-based providers of fixed broadband must provide in their Form 477 submissions a list of all census blocks where they make broadband connections available to end-user premises, along with the last-mile technology or technologies used. These deployment data represent the areas where a provider does, *or could,* without an extraordinary commitment of resources, provide service. Thus, the meaning of ''availability'' in each listed census block can be multifaceted, even within the data of a single filer. In a particular listed block, the provider may have subscribers or it may not. At the same time, the provider may be able to take on additional subscribers or it may not. The various combinations have varying implications that make it difficult to understand availability. Specifically, if a block was listed by a provider, it is impossible to tell whether residents of that block seeking service could turn to that provider for service or whether the provider would be unable or unwilling to take on additional subscribers. This may limit the value of these data to inform policy-making and as a tool for consumers and businesses to determine the universe of potential Internet service providers at their location.

30. The Commission seeks comment on whether to require fixed broadband providers to indicate whether total customers served on a particular technology could be increased in each census block listed when they report deployment data. It seeks comment on whether all fixed broadband providers should be required to identify on Form 477 three categories of service areas for each technology code: (1) Areas where there are both existing customers served by a particular last-mile technology, and total number of customers using that technology can, and would, be readily increased within a standard interval upon request; (2) areas where existing customers are served but no net-additional customers using that technology will be accommodated; and (3) areas where there are no existing customers for a particular technology but new customers will be added within a standard interval upon request. If it determines to add such a requirement, the Commission seeks comment on how providers would identify the relevant geographic units. For example, if a satellite provider could not increase the total number of new subscribers in a spot beam, would they be able to indicate the speed and/or the capacity to increase the total number of subscribers at various locations in the beam at the block or sub-block level? Would this modification to the current requirements elicit data that are more accurate and useful to the Commission, other policymakers, and the public than the deployment data currently collected? These distinctions could help policymakers understand which areas may be limited for service expansion using specific technologies and which areas may be capable of increasing the total number of subscribers using specific technologies. Doing so would offer the Commission, as well as other users of these data, a more nuanced picture of deployment. It would be possible to see, for example, where providers are building capacity, using which technologies, and similarly where they are not.

31. The Commission seeks comment on the specific costs for fixed broadband providers to report such data, and how to ensure that reporting the data would be as minimally burdensome on filers as possible. Is it reasonable, for example, to assume that fixed broadband providers are aware of whether they have the capacity in place to make their service available and add new subscribers in a particular location? Do providers routinely maintain information about their service areas that would enable them to provide this information readily, or would this proposal require them to develop new information? The Commission seeks comment on the estimated time required to produce the data and ask commenters to provide the incremental costs of any new software development in addition to the average wage rate estimate. Commenters should also address whether technical or other features of particular transmission technologies would raise issues that would make this information more or less difficult to report.

32. As previously stated, Form 477 collects fixed broadband deployment data on the census-block level. In the *2013 Form 477 Order,* the Commission considered and rejected collecting the data on a more granular level. Although recognizing that more granularity may be beneficial in the context of many of its proceedings, the Commission concluded at that time that the administrative and data-quality challenges to collecting data below the census-block level likely would make such an endeavor impractical.

33. More recently, the Commission has requested that specific providers involved in certain of its proceedings provide fixed broadband deployment data on a more granular basis than by census block. For example, the Commission currently collects location-level data from recipients of USF funding to assess whether they are meeting their buildout requirements. The Commission has found this more granular data to be extremely useful in understanding issues surrounding fixed broadband deployment in these contexts and believes that it could be useful if residential deployment data in particular were more generally available to the Commission. The Commission notes that stakeholders have recommended collecting and reporting deployment data at various sub-census block geographies, including at the street-address or parcel level.

34. The Commission seeks comment on giving fixed-broadband providers the option of reporting their deployment data by filing geospatial data showing coverage areas (*i.e.,* polygons of coverage filed via shapefiles or rasters) as providers of mobile broadband and voice service currently are required to do—instead of reporting a list of census

blocks. This could reduce the burden on filers. Since the current Form 477 interface can accept geospatial data, accepting similar data from fixed broadband providers should not present a significant technical burden for the Commission. The Commission seeks comment on whether providers of wired, fixed-terrestrial or fixed-satellite broadband routinely store their broadband footprints as geospatial coverage data. To the extent providers do not routinely store data in such a format, or to ensure comparability among different providers' data, the Commission also seeks comment on how to specify a single methodology for determining the coverage area of a network. What burdens would be associated with creating such geospatial data? In addition, since the Commission lacks the locations of individual homes (or businesses), knowing the areas served does not provide information about the location or number of homes that have or lack service (*i.e.,* it provides information on the areas that have or lack service, not the homes that lack service). Should the Commission assume that all homes within a block have service even if only a fraction of a block's area has service? Should the Commission assume that the fraction of a partially served block with the service correlates with a fraction of homes within that block that have service? This would mean determining what fraction of people or homes (*e.g.,* tenths or hundredths) have had broadband deployed. Over larger areas, such fractional people or homes would likely tend to reflect overall coverage; but over smaller areas would reflect a probabilistic estimate of coverage rather than an accurate count of people or homes lacking coverage. The Commission seeks comment about how it could make the best use of such geospatial data to find the number and location of the unserved, and the value of such data compared to the burden of such a filing.

35. The Commission also seeks comment on collecting data at a sub-census-block level. While collection of data by street address, for example, could increase the complexity and burden of the collection for both the Commission and the filers, the Commission seeks comment on the scope of this burden and potential corresponding benefits. For example, having national, granular broadband deployment data could greatly assist with any future disbursement of high-cost funds or universal service reverse auctions, assist consumers with locating broadband competition in their area, and with other broad public policy goals. With more than 130 million housing units in the country, an address-level dataset could have as many as roughly 750 million records for each filing; based on the scale of this dataset, a household-level collection could require significant additional time and other resources to establish and carry out. The Commission also seeks comment on whether there is a publicly available, nationwide data set containing the address and location (latitude and longitude; and for Multiple Dwelling Units (MDUs), possibly altitude information to distinguish data about units on different floors) for each housing unit in the country, such that filers, or the Commission could geocode street addresses. And, given that the number of housing units changes each year, the Commission is similarly unaware of a means to update such a data set or of publicly available and annually updated source of housing units or population counts in each block that is publicly available and updated annually. The Commission additionally seeks comment on whether the Commission should require providers to submit the service address for every housing unit at which service is available. While this approach would require the Commission to take on the cost of geocoding all the filings, it would potentially relieve burden on the industry. If the Commission requires service address reporting, the Commission seeks comment on ways it could make the reporting less burdensome on providers and the Commission. For example, should the Commission require specific formatting for submission of address-level data? In addition, how could Commission staff find latitude and longitude for addresses that do not provide a full match from a geocoding service?

36. As an alternative, the Commission seeks comment on whether it should require providers to geocode all the addresses at which service is available. The Commission seeks comment on the costs and benefits associated with this approach, and on ways that the Commission could ease the burden on filers. For example, should the Commission specify a single geocoding methodology to be used by all providers (*e.g.,* require all providers to use a single geocoding service, and specify how to handle any geocoding partial matches or failures), or require that providers file a latitude and longitude measured in the field? If the Commission accepts multiple geocoding methodologies, or a mix of geocoding and field geolocating, can Commission staff determine when two points filed by different providers represent the same location? Do providers typically know every address to which they could provision service? Are there ways that the Commission could improve its submission portal to make filing this kind of data less burdensome on providers?

37. The Commission also seeks comment on other sub-census block alternatives, such as collecting data about what street segments providers cover. This approach could avoid some of the problems with address-level collections—providers would not need to know every address they cover, only the geographic areas; and there would be no need for geocoding. Such a collection would provide an indication of the road segments where service is available (or, perhaps, road segments along which facilities run), and by extension, road segments along which there is no service or facilities. However, without a data set of housing-unit locations, this method would not yield information on how many homes are along road segments with service and how many are along road segments that lack service. Service might be concentrated in areas where people live in some blocks but not available to all homes in other blocks. A street-segment data collection would not allow the Commission to differentiate those two very different possibilities. In short, lacking a data set with the location of each housing unit, this approach would provide a map of roads that lack fixed-broadband service or facilities, not an indication of the number or location of homes or people that lack service. The Commission seeks comment on these conclusions, and on suggestions for resolving these concerns. What are the costs and benefits of adopting a street segment approach for data collection?

38. The Commission notes that NTIA collected sub-block level data for blocks larger than two square miles for the National Broadband Map, but also that such data did not provide an indication of where homes lacked broadband availability. For such large blocks, some providers filed data indicating road lengths along which they stated their service was available, others provided points where service was available, and fixed wireless providers supplied geospatial data indicating their coverage areas. However, because no database indicated where the housing units were actually located within these large blocks, the number of housing units that could actually receive service could not be determined. In other words, while the data indicated what *areas* did not have service available, the data did not provide information on whether any

homes or *people* in the areas lacked service, or whether the parts of the census blocks with service available included all homes. The National Broadband Map took different approaches to dealing with this uncertainty over time, for example, treating partially served blocks as being half served plus-or-minus half (*i.e.,* indicating a literal uncertainty); or creating a random distribution of housing units within a block and determining the fraction of those random points that were covered by the reported service (*i.e.,* creating pseudo-data to fill in for what was not known). In short, the sub-block level data provided a statistical estimate, at best, of coverage.

39. Another approach to understanding sub-block coverage would be to require broadband providers to identify blocks that they can fully serve. Under this approach, in addition to filing data on technology and download and upload speed, providers would submit data indicating, for each block, whether they can make service available to all locations (residential and business) within the block. The Commission seeks comment on whether fixed broadband providers, particularly providers of wired broadband services, know whether any locations within each block are beyond the reach of their facilities, such that they could not make service available within a typical service interval. How burdensome would it be for providers to make such a determination for each block in their footprint? Would such data be more useful to the Commission than the fixed deployment data currently collected? If the Commission had information about fully covered blocks, it would also know, for each provider, which blocks are *not* fully covered. Should the Commission collect geocoded deployment data for blocks that are less-than-fully covered from each provider? Collecting sub-block geocoded data for only a subset of blocks would address some of the challenges outlined above simply by reducing the amount of data to be collected and filed, but would not address other challenges, such as the accuracy of geocoding, or the challenge of determining where locations lie along road segments. The Commission seeks comment on how to overcome the challenges identified in collecting sub-block data, as well as the benefits and burdens of seeking more granular data for a subset of blocks.

40. In sum, the Commission seeks comment on whether it should move to a more granular basis for reporting deployment data and, if so, what basis would be appropriate. For each basis they support, commenters should explain in detail the methodology or approach they propose for capturing the data in a sufficiently uniform format to facilitate processing (*e.g.,* geocoding, latitude/longitude, address). Commenters also should address the expected burden to filers and to the Commission. Commenters should also articulate the relative benefits of each approach. For example, do filers routinely maintain the data needed to comply with the reporting requirements and, if not, what costs will be associated with obtaining them, both at the outset and on an ongoing basis? Are there other methodologies for collecting fixed broadband deployment data that have lower associated costs relative to the expected benefit?

41. The Commission also seeks comment on whether the Commission should modify the Form 477 requirements relating to satellite broadband deployment data to address issues unique to satellite broadband service. Since satellite providers initially reported that they could provide service to millions of census blocks, the *Form 477 Instructions* were amended to reduce burden on such filers by giving them the opportunity to streamline their data under certain circumstances. Specifically, the *Form 477 Instructions* state that ''[s]atellite providers that believe their deployment footprint can be best represented by every block in a particular state or set of states may abbreviate their upload file by submitting only one block-level record for each state included in the footprint and providing a note in the Explanations and Comments section.'' Through the use of that method, one or more satellite providers have indicated on Form 477 that they deploy satellite broadband at certain speeds ubiquitously across the United States. The Commission seeks comment on how to minimize burdens for providers with large footprints to report while maintaining variation in the data.

42. The Commission seeks comment specifically on eliminating the option to file abbreviated fixed broadband deployment data for each state. Will removing the option of filing abbreviated fixed broadband deployment data improve the accuracy of the data? Should satellite broadband providers instead report a list of all census blocks, similar to other fixed broadband providers? What if any incremental burden on satellite providers is likely to result from eliminating the abbreviated option? Are there any other options for satellite broadband providers?

43. The Commission notes that satellite-based broadband networks, like all fixed-broadband networks, have capacity limits in some parts of the network, and that networks are not generally capable of serving all potential customers across a large footprint (such as the continental United States) at once. The Commission seeks comment on whether satellite's unique characteristics (*e.g.,* the relatively large area over which satellite providers state they provide coverage, the inherent flexibility of wide-area beams and spot beams, or the difficulty of adding new satellite capacity beyond current space station limits) make satellite coverage, in particular, more difficult for providers to characterize at the census block level. Would revising deployment reporting for all fixed providers, as discussed above, address issues that may affect the accuracy of satellite reporting? If the Commission determines not to revise the deployment reporting obligations for all fixed broadband providers, are there steps it should take to address specific issues relating to satellite deployment, such as capacity constraints in areas in which service is currently reported as ''available''? If satellite does face unique challenges, how can the Commission change the data collection to improve data for satellite while maintaining comparability to other fixed-broadband data? In the future, the Commission will also need to account for large Non-Geostationary Orbit (NGSO) satellite constellations that plan to provide broadband services. The Commission seeks comment on what steps it can take to achieve this.

44. The Commission also seeks comment on whether, if it does not revise deployment reporting requirements to allow all providers of fixed broadband service to file shapefiles or rasters in lieu of census blocks, it should allow satellite providers to do so. Would satellite providers face lower burdens and/or would the data quality improve if the Commission accepted geospatial data rather than block-level data from satellite providers? The Commission notes, as discussed in the *2013 Form 477 Order,* that satellite broadband providers already submit coverage-area information as part of a satellite application or letter of intent. While information submitted at the application phase is extremely useful to that process, the Commission continues to believe that it is essential to gather data regularly via Form 477 to reflect as-built, rather than as-planned, network deployment. Given satellite providers'

experience in developing geospatial data, the Commission seeks comment on whether requiring satellite deployment data to be filed in that format would significantly reduce filer burden.

45. Are there other issues unique to satellite that affect the accuracy or utility of the data the Commission collects and, if so, what approaches could it take to address them? What are the costs and benefits of these approaches?

46. Rate-of-return carriers currently submit their fixed voice subscription (FVS) counts by study area to USAC on an annual basis, and the FCC publishes those data. The Commission believes these data provide useful information to the public about the extent of voice subscriptions in each carrier's study area. However, under a rule recently adopted in the CAF proceeding, rate-of-return carriers switching to the Alternative Connect America Cost Model and Alaska Plan carriers may no longer report such data to USAC for their legacy study area boundaries. In order to maintain the reporting of this information, the Commission proposes to use the Form 477 FVS data, in conjunction with Study Area Boundary data, to develop and publish aggregated voice line counts for every study area, to mirror the approach used to collect these data from price-cap carriers. The Commission seeks comment on this proposal and on the methodology for generating this metric. While the Commission has generally determined not to routinely release filer-specific data collected on Form 477, in this case, the information, collected via another source, has been routinely publicized. Accordingly, the Commission believes that the value of using the Form 477 data for this purpose outweighs any associated confidentiality interest in the confidentiality of the data. The Commission seeks comment on this and on whether the use of Form 477 data is the most efficient and effective means for collecting data.

47. The Commission proposes that certain collected data that are currently treated as confidential be made public. First, the Commission proposes that minimum advertised or expected speed data for mobile broadband services should not be treated as confidential and it proposes releasing such data for all subsequent Form 477 filings going forward. The Commission notes that, in the context of the Mobility Fund II proceeding, several parties have expressed opposition to a proposal to release minimum advertised or expected 4G LTE speed data. Currently, the providers' Form 477 minimum advertised speeds have been treated as confidential and consumers and policy makers have been limited in their ability to compare offerings from this collection. This information, however, is already available from other sources. For example, providers routinely make available on their Web sites information about the typical upload and download speeds their network offers in particular geographic areas. Because speed data information is publicly available, the Commission believes that it is not commercially sensitive, and its release will not cause competitive harm. In addition, the Commission expects that dissemination of minimum advertised or expected speed data to the public would promote a more informed, efficient market by providing information that can aid in independent analyses. Making such data available to the public provides consumers, states, and experts the opportunity to review the data to ensure the accuracy of the information. The Commission seeks comment on this proposal. To the extent the Commission collects any other speed data that are currently treated as confidential, it seeks comment on whether such data should also be made available to the public, again to promote a more informed, efficient market and aid in independent competitive analyses.

48. Similarly, the Commission proposes that, if detailed propagation model parameters are submitted in the Form 477 filings, some of these parameters should be treated as public information, as the Commission believes that such parameters are not competitively sensitive. For example, terrain resolution, signal strength, and the loading factor are higher-level aggregate parameters and should not be treated as confidential. The Commission seeks comment on this proposal. If filers believe that certain propagation model parameters should be treated as confidential for competitive reasons, then they should provide a list of those parameters, and explain the underlying reasons why.

49. *National-Level, Fixed Broadband Subscriber Counts.* The Commission has historically determined not to make filer-specific broadband subscription data collected on Form 477 routinely available to the public. Consistent with this determination, the Commission has redacted and aggregated data as necessary to prevent indirect disclosure of filer-specific data. The Commission has noted, however, that increased public access to disaggregated subscription data could have significant benefits. The Commission believes that these benefits may outweigh any confidentiality interests for some disaggregated subscription data. In particular, the Commission believes that making public the number of subscribers at each reported speed on a national level would provide a meaningful metric of the state of broadband adoption in the U.S. Although this change would not involve expressly identifying the specific filers submitting the information, it might be possible to infer with reasonable certainty the provider or providers reporting subscribers at higher speeds, for which fewer providers offer service. The Commission believes however, that any competitive harm to the affected providers is likely to be slight, because the numbers would be aggregated to the national level and similar information is routinely made public by these entities through the Securities and Exchange Commission (SEC) and other disclosures. The Commission seeks comment on whether disclosure of this information would be beneficial and, if so, whether any measures are necessary to ensure that the interests of the filers are protected.

50. *Release of Disaggregated Subscriber Data.* As another avenue for realizing the potential benefits of greater public access to subscription data, the Commission seeks comment on whether certain types of disaggregated subscriber data should be made public after a certain period of time has passed. The Commission believes that, over time, the potential for competitive harm from the release of filer-specific subscription data likely diminishes. The Commission seeks comment on whether this is the case in connection with specific types of subscriber information collected on Form 477 and, if so, what period of time provides adequate protection from harm for each. What factors should be weighed in determining which categories of raw data files to release? What would be the public interest and legal justifications for releasing or not releasing different types of raw data files?

51. *Other Data.* The Commission also seeks comment on whether there are other Form 477 data that the Commission should consider making public. While the Commission understands confidentiality concerns associated with making aspects of these data public, there are also significant potential benefits to consumers and public policy. The Commission invites comment on what data should be made publicly available, and how to mitigate competitive and other concerns.

52. Form 477 is currently a semi-annual collection. In the *2011 Form 477 NPRM,* the Commission sought comment on other time frames, and on

different time frames for providers based upon size, but did not address those issues in the *2013 Report and Order.* The Commission seeks to refresh the record on whether to shift to an annual collection for all filers, for certain filers (such as smaller filers), or for certain parts of the form. Are there some types of data (*e.g.,* the speed of fixed-broadband-deployment subscriptions, or the coverage of mobile broadband deployment) that change so quickly that an annual filing would obscure significant developments that should be captured by the Commission's reports? The Commission specifically seeks comment on the potential impacts of switching to annual, instead of semi-annual, reporting for all Form 477 filers, both in terms of the utility of the data collected and the burden on filers. While the overall burden associated with Form 477 likely would decrease by switching to annual filing, the Commission seeks comment on whether the per-round burden on an annual basis would increase to some degree and whether this would be manageable. The Commission seeks comment on whether it is more efficient for a filer's employees to undertake this collection once a year given employee turnover and the greater amount of change to the data on an annual basis compared to a more routine semi-annual filing with a smaller amount of change to the data.

53. The Commission also seeks comment on whether collecting on a twelve-month cycle would render the data less useful for its purposes, given the rate of broadband deployment and uptake, particularly at higher speeds, industrywide. For example, how would an annual collection affect Commission policymaking? Would it be more difficult to analyze industry trends—such as competition, entry/expansion, adoption of newer technologies and faster speeds—with only annual data? On a one-year cycle, the most recently filed data available for analysis may be up to six months older than it is now. Would the lack of more recent data unduly impair the Commission's ability to carry out transaction review effectively or generate comprehensive and up-to-date Broadband Progress reports?

54. As part of its examination of the Form 477 collection, the Commission also seeks input on how it make the Form 477 data available to the public and stakeholders. How would the proposals described in this FNPRM affect the Commission's ability to process the data and make them available? Given current data and the proposals above, what approach should the Commission take with regard to the National Broadband Map (NBM) (*www.broadbandmap.gov*)? The Commission currently maintains access to the NBM, which relies on data collected by the National Telecommunications and Information Administration via the State Broadband Initiative (SBI) for data as of June, 2014. In addition, the Commission makes a number of maps available to help visualize more recent Form 477 data and makes Form 477 data available for download in various formats. The Commission believes that a searchable national map of the most recently available Form 477 broadband deployment data can have significant value for the public, industry, researchers and others. Such a map could also provide significant support for the Commission's own efforts in tracking broadband. The Commission therefore seeks input on whether, and how, it can use the Form 477 data most effectively to update the NBM.

III. Procedural Matters

55. *Initial Regulatory Flexibility Analysis.* As required by the Regulatory Flexibility Act of 1980 (RFA), the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) for this *Notice of Proposed Rulemaking,* of the possible significant economic impact on small entities of the policies and rules addressed in this document. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed on or before the dates identified above. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, will send a copy of this FNPRM, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).

56. With this FNPRM, the Commission initiates a further proceeding to examine the effectiveness of the Commission's Form 477—the principal tool used by the Commission to gather data on communications services, including broadband services, to help inform policymaking. In establishing Form 477, the Commission envisioned that the data collected would help it better assess the availability of broadband services, such as high-speed Internet access service, and the development of competition for local telephone service, materially improving its policymaking in those areas. From the outset, the Commission sought to minimize the burden the collection requirements would impose on filers. The Commission's goal in this FNPRM is to eliminate the collection of certain information on Form 477 that the Commission believes is not sufficiently useful when compared with the burden imposed on filers in providing it and to explore how the Commission can revise other aspects of the data collection to increase its usefulness to the Commission, Congress, the industry, and the public. These steps continue the Commission's efforts since the creation of Form 477 to identify and eliminate unnecessary or overly-burdensome filing requirements while improving the value of the data the Commission continues to collect. This FNPRM proposes several ways to streamline the information collected in Form 477 as well as suggests ways to ensure Form 477 data are as accurate and reliable as possible.

57. The legal basis for any action that may be taken pursuant to the FNPRM is contained in sections 3, 10, 201(b), 230, 254(e), 303(r), and 332 of the Communications Act of 1934, as amended 47 U.S.C. 153, 160, 201(b), 254(e), 303(r), 332.

58. 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 proposed rules, if adopted. 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.

59. *Small Businesses, Small Organizations, Small Governmental Jurisdictions.* The Commission's actions, over time, may affect small entities that are not easily categorized at present. The Commission therefore describes 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. 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 2007, there were approximately 1,621,215 small organizations. 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. The Commission estimates that, of this total, as many as 88,761 entities may qualify as ''small governmental jurisdictions.'' Thus, the Commission estimates that most governmental jurisdictions are small.

60. The potential modifications proposed in this FNPRM if adopted, could, at least initially, impose some new reporting, recordkeeping, or other compliance requirements on some small entities. In order to evaluate any new or modified reporting, recordkeeping, or other compliance requirements that may result from the actions proposed in this FNPRM, the Commission has sought input from the parties on various matters. As indicated above, the FNPRM seeks comment on modifications to the Commission's existing Form 477 to minimize burdens on carriers while enhancing the utility of the data the Commission collects. The proposals include removing some previous Form 477 reporting requirements, altering some existing requirements, and supplementing the Form 477 collection with some additional, directed proposals to improve the data collected. For example, the Commission proposes to remove some requirements that do not appear to provide salient data, but the Commission also proposes collecting new or different data to ensure the data capture the most relevant new advances in service offerings and availability. Nevertheless, the Commission anticipates that the removal or modification of some Form 477 reporting requirements will lead to a long-term reduction in reporting, recordkeeping, or other compliance requirements on some small entities.

61. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include (among others) the following four alternatives: (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.

62. To evaluate options and alternatives should there be a significant economic impact on small entities as a result of actions that have been proposed in this FNPRM, the Commission has sought comment from the parties. The FNPRM seeks comment on ways in which the Commission might streamline its current requirements and thereby reduce the burdens on small providers and other filers. The Commission also seeks comment on ways in which the Commission might improve the usefulness of other aspects of the Form 477 to maximize the utility of the information the Commission continues to collect. For example, the Commission asks whether the Commission needs to collect mobile voice deployment data by technology and spectrum band, and whether the Commission should revise mobile voice deployment reporting requirements to allow a simple check instead of detailed information for some existing voice deployment reporting requirements. Steps such as these seek to reduce the types and amount of information the Commission collects, which results in more useful information, and also reduces burdens placed on small entities and others. In addition, other proposals the Commission outlines could, for example, limit the number of shapefiles (and the amount of the associated underlying data processing) providers are required to submit.

63. The Commission expects to more fully consider the economic impact on small entities following its review of comments filed in response to the FNPRM and this IRFA. In particular, the Commission seeks comment herein on the effect the various proposals described in the FNPRM, and summarized above, will have on small entities, and on what effect alternative Form 477 reporting requirements would have on those entities. The Commission also seeks comment from interested parties on any potential additional methods of reducing compliance burdens for small providers and ensuring the most useful information based on the Form 477 collection. The Commission's evaluation of the comments filed on these topics as well as on other proposals and questions in the FNPRM that seek to reduce the burdens placed on small providers in both the mobile and fixed contexts will shape the final conclusions the Commission reaches, the final significant alternatives the Commission considers, and the actions the Commission ultimately takes in this proceeding to minimize any significant economic impact that may occur on small entities.

64. This document contains proposed modified information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and the Office of Management and Budget (OMB) to comment on the information collection requirements contained in this document, as required by the Paperwork Reduction Act of 1995, Public Law 104–13. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107–198, *see* 44 U.S.C. 3506(c)(4), the Commission seeks specific comment on how it might further reduce the information collection burden for small business concerns with fewer than 25 employees.

65. *Permit-But-Disclose.* The proceeding this FNPRM initiates shall be treated as a ''permit-but-disclose'' proceeding in accordance with the Commission's *ex parte* rules. Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system

available for that proceeding, and must be filed in their native format (*e.g.,* .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

IV. Ordering Clauses

66. Accordingly, it is ordered, pursuant to sections 4(i), 201(b), 214, 218–220, 251–252, 254, 303(r), 310, 332, 403, and 706 of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 201(b), 214, 218–220, 251–252, 254, 303(r), 310, 332, 403, and 1302 this Further Notice of Proposed Rulemaking is adopted.

Federal Communications Commission.

Katura Jackson,

Federal Register Liaison Officer, Office of the Secretary.

[FR Doc. 2017–17901 Filed 8–23–17; 8:45 am]

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