

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Connect America Fund)	WC Docket No. 10-90
)	

REPORT AND ORDER

Adopted: October 31, 2013

Released: October 31, 2013

By the Chief, Wireline Competition Bureau:

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I. INTRODUCTION

1. In the *USF/ICC Transformation Order*, the Commission comprehensively reformed and modernized the universal service and intercarrier compensation systems to maintain voice service and extend broadband-capable infrastructure to millions of Americans.¹ As part of the reform, the Commission adopted a framework for providing support to areas served by price cap carriers, known as the Connect America Fund, through “a combination of competitive bidding and a new forward-looking model of the cost of constructing modern multi-purpose networks.”² In particular, the Commission will offer each price cap carrier monthly model-based support for a period of five years in exchange for a state-level commitment to serve specified areas within the state that are not served by an unsubsidized competitor, and if that offer is not accepted, will determine support through a competitive process.

2. In this Report and Order (Order), the Wireline Competition Bureau (Bureau) takes further action to implement the Commission’s direction that price cap carriers may elect to receive model-based

¹ See *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order and Further Notice of Proposed Rulemaking, 26 FCC 17663 (2011) (*USF/ICC Transformation Order and/or FNPRM*), *pets. for review pending sub nom. In re: FCC 11-161*, No. 11-9900 (10th Cir. filed Dec. 8, 2011).

² *USF/ICC Transformation Order*, 26 FCC Rcd at 17725, para. 156.

support in certain areas in exchange for making a state-level commitment to meet the Commission's service obligations. We specify the service obligations of price cap carriers that accept Phase II model-based support through the state-level commitment process.³ Specifically, we provide two options for a price cap carrier accepting model-based support to meet the Commission's requirements for reasonably comparable pricing of voice and broadband services. In addition, we specify a 100 gigabyte (GB) minimum usage allowance that will initially apply to a price cap carrier accepting model-based support for Phase II-funded locations, to the extent the carrier chooses to set usage allowances in such areas. We also specify latency requirements – specifically, that price cap carriers must have a provider round trip latency of 100 milliseconds (ms) or less, and provide two options for how they may test and report compliance with this requirement. Finally, we address how we will apply these metrics to determine what areas we will consider as served by an unsubsidized competitor.

II. BACKGROUND

3. In the *USF/ICC Transformation Order*, the Commission delegated to the Bureau the task of implementing various aspects of Connect America Phase II.⁴ The Bureau has made significant progress in developing the cost model, releasing eight working versions of the model to date to allow for targeted public comment as the model develops. In April 2013, the Bureau released an order resolving the key network and engineering assumptions for the Connect America Cost Model.⁵ In May 2013, the Bureau adopted procedures for price cap carriers to elect to accept Phase II support via a state-level commitment and certain procedural requirements, including presumptions, to be used in determining what areas are served by unsubsidized competitors.⁶

4. Under the *USF/ICC Transformation Order*, the Commission specified that price cap carriers making a state-level commitment must provide broadband service that is “reasonably comparable to terrestrial fixed broadband service.”⁷ Price cap carriers are required to offer voice telephony throughout their service areas at rates reasonably comparable to rates for reasonably comparable voice service in urban areas.⁸ Moreover, as a condition of receiving support for voice telephony, a price cap carrier accepting Phase II support through a state-level commitment is required to “offer broadband at actual speeds of at least 4 Mbps downstream and 1 Mbps upstream, with latency suitable for real-time applications, such as VoIP, and with usage capacity reasonably comparable to that available in

³ We emphasize that the metrics we adopt in this Order apply only to price cap carriers making a state-level commitment for Phase II and do not prejudice how service obligations may be applied in other aspects of Connect America, such as the requirements for recipients in areas where the price cap carrier declines to make a state-level commitment, Phase II of the Mobility Fund or the Tribal Mobility Fund, the Remote Areas Fund, or the service obligations of rate-of-return carriers.

⁴ *USF/ICC Transformation Order*, 26 FCC Rcd at 17701, 17729, paras. 103, 170.

⁵ *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order, 28 FCC Rcd 5301 (Wireline Comp. Bur. 2013).

⁶ *See Connect America Fund*, WC Docket No. 10-90, Order, 28 FCC Rcd 7211, 7221-22, paras. 23-29 (Wireline Comp. Bur. 2013) (*Phase II Challenge Process Order*).

⁷ *USF/ICC Transformation Order*, 26 FCC Rcd at 17726, para. 160.

⁸ *Id.* at 17694, para. 84; *see also* 47 C.F.R. § 54.313(a)(10) (requiring annual certifications for voice rates). The Commission directed the Wireline Competition Bureau and Wireless Telecommunications Bureau to conduct a survey of residential urban rates for voice services. *USF/ICC Transformation Order*, 26 FCC Rcd at 17694, para. 85.

comparable offerings in urban areas.”⁹ The Commission also specified that the pricing of broadband service in rural areas must be reasonably comparable to the rates for reasonably comparable broadband service in urban areas.¹⁰

5. In the *Phase II Service Obligations Public Notice*, the Bureau sought comment on what specific metrics a price cap carrier must meet in order to be deemed in compliance with the service obligations adopted by the Commission and specific standards to be used in determining which areas are served by an unsubsidized competitor and therefore excluded from Phase II support.¹¹

III. DISCUSSION

A. Price Cap Carrier Obligations

6. In this section, we discuss the specific metrics that will be used to determine compliance of recipients of model-based Phase II support with the Commission’s service obligations.¹² By setting these standards, we provide clarity to price cap carriers contemplating accepting Phase II support through the state-level commitment process. We detail how compliance with the Commission’s requirements will be evaluated, while creating a straightforward framework for oversight and accountability in Phase II.¹³ Price cap carriers should use the standards in this Order when making their annual certifications.¹⁴ The Commission will review these annual reports to ensure the standards set forth in this Order are being met and to evaluate price cap carriers’ continuing eligibility for Phase II support.¹⁵

⁹ *USF/ICC Transformation Order*, 26 FCC Rcd at 17726, para. 160.

¹⁰ *Id.* at 17708, para. 113. The Commission delegated “authority to conduct an annual survey of urban broadband rates, if necessary, in order to derive a national range of rates for broadband service” and “to monitor urban broadband offerings, including by conducting an annual survey, in order to specify an appropriate minimum for usage allowances and to adjust such a minimum over time.” *Id.* at 17699, 17708, paras. 99, 114.

¹¹ *Wireline Competition Bureau Seeks Further Comment on Issues Regarding Service Obligations for Connect America Phase II and Determining Who Is an Unsubsidized Competitor*, WC Docket No. 10-90, Public Notice, 28 FCC Rcd 1517 (Wireline Comp. Bur. 2013) (*Phase II Service Obligations Public Notice*).

¹² At the outset, we note that price cap carriers accepting model-based support may offer their customers services other than those meeting these performance criteria. As long as the carrier offers at least one voice service plan and one broadband service plan that meets these metrics, it is free to offer other plans and packages to meet the varying needs of consumers. We note that usage allowance and latency requirements do not apply to those areas that rely exclusively on satellite backhaul. *See USF/ICC Transformation Order*, 26 FCC Rcd at 17699-700, para. 101; *see also* 47 C.F.R. § 54.313(g).

¹³ While we set specific standards for both the price and usage allowance of broadband service in order to implement Phase II model-based support, this in no way constitutes price or usage regulation of broadband services, as suggested by some commenters. *Cf.* Comments of the American Cable Association, WC Docket No. 10-90, at 10-11 (filed Mar. 28, 2013) (ACA Comments); Comments of the National Cable and Telecommunications Association, WC Docket No. 10-90, at 4 (filed Mar. 28, 2013) (NCTA Comments). Rather, these measures are merely intended to provide guidance to parties that voluntarily accept universal service support as to how their compliance with the Commission’s service obligations will be evaluated.

¹⁴ *See* 47 C.F.R. § 54.313(a)(1), (e)(3).

¹⁵ An entity receiving support will receive reduced support should it fail to fulfill its public interest obligations. *USF/ICC Transformation Order and FNPRM*, 26 FCC Rcd at 17863, para. 618. The Commission has sought comment on what the appropriate specific consequences are for partial non-compliance. *Id.* at 18067-68, paras. 1110-16.

7. *Price.* The *USF/ICC Transformation Order* calls for rates for both voice and broadband between urban and rural areas to be reasonably comparable.¹⁶ The Bureau has adopted a survey instrument to conduct a rate survey, and the Bureau is working to conduct this survey in the near future.¹⁷ We anticipate that the rate survey data will be available, and the benchmarks set, prior to the deadline for Phase II state-level commitment elections. Once these benchmarks are adopted, a price cap carrier accepting model-based support can certify that its rates conform to the reasonable comparability benchmark.

8. Consistent with the Commission's approach when it adopted rules for the second round of Connect America Phase I incremental support,¹⁸ we also adopt an alternative means for showing reasonable rate comparability: a carrier's rate for both voice and broadband will be presumed reasonably comparable if the carrier certifies that it is offering fixed services meeting our voice and broadband requirements for the same or lower prices in rural areas as urban areas. To qualify for this presumption, the qualifying service plan must have substantially similar terms and conditions in both urban and rural areas.¹⁹ This approach recognizes that if rates in rural areas are the same as urban areas, that by definition complies with the reasonable comparability principles set forth in section 254(b).²⁰ In order to certify that rates are reasonably comparable under this presumption, the rates in Phase II-funded areas must be the same or lower than rates for fixed wireline services in urban areas.²¹ We do not require the carrier to offer a particular rate nationwide; rather, it is sufficient if the carrier offers the same rate in an urban area in the state where it accepts Phase II funding.²²

¹⁶ *Id.* at 17694, 17708-09, paras. 85, 113-14. The Commission concluded that voice rates would be presumed to be reasonably comparable if they fall within two standard deviations of a national average. *See, e.g., id.* at 17694, para. 84.

¹⁷ *Connect America Fund*, WC Docket No. 10-90, Order, 28 FCC Rcd 4242 (Wireline Comp. Bur. 2013).

¹⁸ *Connect America Fund*, WC Docket No. 10-90, Order, 28 FCC Rcd 7766, 7776, para. 25 n.53 (2013).

¹⁹ For instance, it would be insufficient for a carrier to demonstrate that its low-end plan in rural areas is offered for the same or lower prices than its high-end plan in urban areas. Similarly, a carrier may not compare a rural plan that has a usage allowance with an urban plan that has no usage allowance (or a substantially higher usage allowance). Recognizing that price cap carriers today do not typically offer a 100 GB usage allowance in urban areas, it will be sufficient for purposes of the presumption to make the comparison with a wireline offering that has a 150 GB or 250 GB usage allowance.

²⁰ This is similar to the mechanism used in the Mobility Fund Phase I auction, where a participant could demonstrate reasonably comparable rates by showing its offering was substantially similar to a service plan offered by at least one mobile wireless service provider in an urban area, and that its offering was made at the same or a lower rate than the compared-to offering. *Mobility Fund Phase I Auction Scheduled for September 27, 2012; Notice and Filing Requirements and Other Procedures for Auction 901*, AU Docket No. 12-25, 27 FCC Rcd 4725, 4772, para. 175 (Wireless Telecomms. Bur. 2012).

²¹ Some commenters argued that the rates offered in urban and rural areas need only be reasonably comparable, not exactly the same. *See, e.g.,* Comments of AT&T, WC Docket No. 10-90, at 10 (filed Mar. 28, 2013) (AT&T Comments); ACA Comments at 10. We agree, and expect to specify appropriate benchmarks for reasonable comparability of both voice and broadband once we collect the data in our urban rate survey. The presumption we establish herein is designed to be a workable measure in the event such benchmarks are not available at the time the carriers must make a state-level commitment, while also providing an additional means for recipients of model-based support to demonstrate compliance with the Commission's requirements even after the adoption of reasonable comparability benchmarks.

²² This should account for carriers that only operate in one state, or have different pricing in different regions of the country. *See* Comments of the Independent Telephone and Telecommunications Alliance, WC Docket No. 10-90, at

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9. We recognize that, in comparing urban and rural offerings, carriers may not offer service plans that exactly match the minimum service obligations for Connect America. Therefore, in certifying that rural rates are at or below urban rates, the basis for comparison should be the lowest cost non-promotional rate for an urban service offering that meets or exceeds each dimension of the service obligations set in this Order.²³

10. In adopting this presumption, we conclude that the relevant comparison for a price cap carrier accepting model-based support is to rates and usage allowances for fixed *wireline* services in urban areas. Some carriers eligible for Phase II funding offer a fixed wireless product in urban areas that may meet all of the service obligations described herein, but such offerings are typically offered at a higher price for a given amount of data usage than typical wireline offerings. Given the Commission's reference in its discussion of capacity to the typical data allowances of wireline broadband offerings, we do not believe it would be consistent with the Commission's framework for a price cap carrier accepting model-based support to meet its reasonable comparability obligations by relying on uniform pricing for fixed wireless offerings.²⁴ Rather, a price cap carrier making a reasonable comparability certification for model-based support must look to the prices and usage allowances of its fixed wireline offerings in urban areas.

11. This presumption may be overcome in extreme circumstances where other evidence strongly suggests that the price cap carrier is relying on the existence of a rate plan in urban areas to which few consumers subscribe. For example, it would not be reasonable for a price cap carrier to rely on the offering of the same service at the same rate in urban and rural areas when only a de minimus number of customers subscribe to the service offering in the urban area.²⁵ Similarly, the presumption may be overcome if a carrier is only offering the service plan in a very small portion of the urban area.

12. As proposed in the *Phase II Service Obligations Public Notice*, an urban area is defined as any "urban area" or "urban cluster" that sits within a Metropolitan Statistical Area, as defined by the Census Bureau. A carrier need only make the offering in part of the "urban area" or "urban cluster" to qualify. The presumption of reasonable comparability under this alternative provides carriers needed certainty in making their elections and is supported by parties in the record.²⁶

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7 (filed Mar. 28, 2013) (ITTA Comments); Comments of USTelecom Association, WC Docket No. 10-90, at 8 (filed Mar. 28, 2013) (USTelecom Comments).

²³ For example, assume a carrier has three urban broadband offerings: 1) 6 Mbps downstream/768 kbps upstream with a 150 GB data allowance for \$40/month; 2) 10 Mbps downstream/2 Mbps upstream with a 150 GB data allowance for \$50/month; and 3) 25 Mbps downstream/5 Mbps upstream with a 250 GB usage allowance for \$60/month. The point of comparison should be the 10 Mbps/2 Mbps service, as the 6 Mbps/768 kbps service fails to meet one of the service obligations (i.e., it does not have an upstream speed of 1 Mbps or higher) and the 25 Mbps/5 Mbps service is not the least expensive option that meets or exceeds all the criteria (as the 10 Mbps/2 Mbps offering meets or exceeds all the criteria for \$10 less). When determining which offering is the least expensive, carriers should look at standard rates as opposed to promotional or time-limited rates (e.g., for an offering that is \$30/month for the first 12 months then \$40/month thereafter, the appropriate price for comparison is \$40).

²⁴ As noted above, we emphasize that this conclusion does not prejudice any decisions regarding the reasonable comparability of prices in other programs, such as Phase II of the Mobility Fund.

²⁵ See USTelecom Comments at 8.

²⁶ See, e.g., *id.* at 9-10; see also ITTA Comments at 7 (supporting a presumption that a carrier with the same urban and rural prices is offering reasonably comparable rates). ViaSat objected to a presumption that a carrier serving both urban and rural areas be deemed to have reasonably comparable rates, noting that carriers could offer "gold-plated" packages nationally, leaving customers in rural areas without any affordable options. Comments of ViaSat, WC Docket No. 10-90, at 5 (filed Mar. 28, 2013) (ViaSat Comments). ViaSat did not provide any evidence of this type of behavior, however, and we conclude that any anomalous situations, if they arise, can be addressed on a case-

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13. The rate survey benchmarks, once adopted, will serve as a safe harbor. To the extent the rates in question for funded locations are at or below the benchmarks established through the rate survey, that will be sufficient to meet the Commission's reasonable comparability requirements.

14. *Usage Allowance.* Under the *USF/ICC Transformation Order*, Phase II recipients must provide broadband with usage allowances reasonably comparable to those available through comparable offerings in urban areas.²⁷ The Commission set some guide posts as to what would be deemed reasonably comparable, noting that a 250 GB per month usage allowance would likely be reasonably comparable, while a 10 GB per month usage allowance would not.²⁸ The Commission delegated to the Bureau the task of setting a specific minimum usage allowance and specified that minimum should be adjusted over time.²⁹

15. In the *Service Obligations Public Notice*, the Bureau sought comment on two methods of setting the minimum usage allowance: the first method was based on what activities could be undertaken with a particular data allowance, and the second method was based on current consumer data usage patterns.³⁰ The Bureau also inquired as to whether the minimum usage allowance should be a fixed standard, or whether it should grow during the term of Phase II.³¹

16. The Commission envisioned that price cap carriers accepting model-based support would build "robust, scalable networks."³² As such, we do not expect those carriers accepting model-based support would impose the kind of usage allowances that typically exist today for many wireless and satellite offerings.³³ Indeed, such usage allowances would be incompatible with the fiber-based forward

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by-case basis. As noted above, the price cap carrier cannot rely on the existence of a service offering in urban areas to which few customers subscribe.

²⁷ See *USF/ICC Transformation Order*, 26 FCC Rcd at 17726, para. 160.

²⁸ *Id.* at 17699, para. 99. The decisions we make in this Order in no way prejudice or constrain future decisions regarding usage allowances for other aspects of Connect America implementation.

²⁹ *Id.*

³⁰ *Phase II Service Obligations Public Notice*, 28 FCC Rcd at 1522-23, paras. 21-23. Parties supported both approaches to calculating the minimum usage limits. See, e.g., ITTA Comments at 8, USTelecom Comments at 10 (approving of setting the usage allowance based on the amount of data required for certain activities); but see Comments of the Wireless Internet Service Providers Association, WC Docket No. 10-90, at 7 (filed Mar. 28, 2013) (WISPA Comments); ViaSat Comments at 7 (approving of setting the usage allowance based on current consumer usage patterns). As discussed below, both the current usage approach and an examination of broadband uses suggest that the initial usage allowance could appropriately be set at a similar point: 100 GB per month. Thus, it is not necessary to decide between these two methodologies.

³¹ *Phase II Service Obligations Public Notice*, 28 FCC Rcd at 1523, para. 24.

³² *USF/ICC Transformation Order*, 26 FCC Rcd at 17726, para. 162; see also *id.* at 17728, paras. 167, 168 ("robust, scalable broadband"). By Commission directive, the Connect America Cost Model calculates cost based on the expense of deploying a wireline network. See *id.* at 17735-36, paras. 187, 189 (specifying that the cost model "should be of wireline technology" and "that the CAF Phase II model should estimate the cost of a wireline network").

³³ Satellite and fixed wireless services often impose usage limits on subscribers. See, e.g., Satellite Internet Packages – Excede Pricing in Your Area, <http://www.excede.com/internet-packages-pricing> (last visited Oct. 31, 2013) (offering 10 GB, 15 GB, and 25 GB packages for satellite broadband for \$49 to \$129); Verizon Home Fusion Broadband, <http://www.verizonwireless.com/b2c/homefusion/hf/main.do> (last visited Oct. 31, 2013) (offering 10 GB, 20 GB, and 30 GB plans for fixed wireless service for \$60 to \$120).

looking cost model approach that the Bureau has adopted.³⁴ To provide clarity in the event a price cap carrier sets any usage allowance for the service offering that it relies upon to meet its universal service obligations for acceptance of model-based support, however, we specify an initial minimum allowed usage limit of 100 GB per month,³⁵ with the opportunity to obtain additional data usage at a reasonable price to the extent the price cap carrier chooses to offer a plan providing the minimum specified amount.³⁶ We conclude that 100 GB is a reasonable initial usage allowance for price cap carriers making a state-level commitment.³⁷ According to the Commission's most recent data, 80 percent of cable/fiber users – most of which are likely to be in urban areas – currently use less than 100 GB per month.³⁸ As discussed in the *Phase II Service Obligations Public Notice* and shown in the chart below,³⁹ this would provide for a

³⁴ *Connect America Fund*, WC Docket No. 10-90, Report and Order, 28 FCC Rcd 5301 (Wireline Comp. Bur. 2013). We are not persuaded by arguments that we should look at usage figures for mobile technology. *See* Comments of CTIA – The Wireless Association, WC Docket No. 10-90, at 10 (filed Mar. 28, 2013) (requesting that the Commission base its metrics on data that includes mobile wireless broadband usage) (CTIA Comments). The Commission expressly stated that eligible telecommunications carriers (ETCs) “whose support is predicated on the offering a fixed broadband service – namely, all ETCs other than recipients of the Phase I Mobility Funds – must allow usage at levels comparable to residential terrestrial *fixed* broadband service in urban areas.” *USF/ICC Transformation Order*, 26 FCC Rcd at 17698, para. 98 (emphasis added). Given this language, we look to usage of consumers of fixed services, not mobile. CTIA also urges us not to set the usage limit in a way that arbitrarily excludes certain technologies. *See* CTIA Comments at 10. As demonstrated herein, our selection of 100 GB is not arbitrary, but rather is based on a combination of actual consumer usage of fixed broadband services today and what permits users of fixed broadband to employ a reasonable amount of useful broadband applications.

³⁵ As discussed below, this minimum usage allowance may increase in the future to account for trends in consumer data usage. In the unlikely event that consumer data usage declines in the future, however, the minimum usage allowance for those carriers accepting model-based support through a state-level commitment will not drop below 100 GB.

³⁶ The ability to purchase additional data at a reasonable price is particularly important to small businesses that may require higher data allowances to engage in broadband-based commerce. This could be done through an overage charge or by giving the user the choice of a higher tier offering with a greater usage allowance. Any plan with a higher usage allowance would be deemed reasonably priced if offered at the same price in both rural and urban areas. For example, if a price cap carrier were to meet its service obligations by offering a 100 GB plan at a specified price in both rural and urban areas, but also offers a 250 GB plan at a higher price in both rural and urban areas, that would be sufficient to meet the requirement to provide options for additional data usage.

³⁷ A 100 GB minimum usage allowance is supported by the record. *See, e.g.*, Reply of the Pennsylvania Public Utility Commission, WC Docket No. 10-90, at 12-13 (filed Apr. 12, 2013); Comments of ADTRAN, WC Docket No. 10-90, at 15 (filed Mar. 28, 2013) (ADTRAN Comments). As stated above, carriers are not limited to only offering a plan that meets or exceeds 100 GB. *See supra* n.12. As long as a carrier offers at least one plan that meets or exceeds all the requirements for Phase II, it is free to offer consumers other plans that do not conform to these requirements. Nevertheless, we do not expect – and we would look with disfavor upon – downward adjustment, in response to this Order, of any provider's current usage thresholds in excess of this 100 GB minimum standard.

³⁸ *See* FCC'S OFFICE OF ENGINEERING AND TECHNOLOGY AND CONSUMER AND GOVERNMENTAL AFFAIRS BUREAU, MEASURING BROADBAND AMERICA FEBRUARY 2013 REPORT 48, <http://transition.fcc.gov/cgb/measuringbroadbandreport/2013/Measuring-Broadband-America-feb-2013.pdf> (MBA February 2013 Report). Measuring Broadband America excluded users with extremely high data consumption profiles (over 160 GB per month) and extremely fast data rates (over 60 Mbps) that had relatively low subscription rates. *See id.* at 46-48.

³⁹ The calculations rely on the following assumed data usage rates for each activity: All websites – 320 kB per website loaded; All email – 100 kB per email sent/received; Video – 1 GB per hour of video. Website and e-mail figures are taken from the Cable One data usage calculator, using the figures for e-mails with attachments and multimedia websites. Cable One, Estimate Your Web Usage, <http://www.cableone.net/pages/datacalculator.html>

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mid-level basket of video related activities, including viewing over 20 hours of video per week and the ability to load hundreds of websites each day.⁴⁰ And, we emphasize that the 100 GB per month is the *minimum* usage – price cap carriers are free to offer plans with additional usage and indeed we encourage price cap carriers to offer a variety of plans in rural areas as they do in urban areas.⁴¹

Broadband Applications Possible with 100 GB of Usage ⁴²	
Video Applications (Education (including digital learning), Healthcare, Business, Community Engagement and Other Activities Such As Video Conferencing with Family)	95 Hours
<i>plus</i> E-mails Sent/Received for Personal and Professional Correspondence	5,000 E-mails
<i>plus</i> Websites Loaded (Activities Such As Job Searching, Education, Banking, Health, and Government Services)	14,500 Websites

17. Other parties have called for a lower minimum usage limit, with some advocating for limits at or below 20 GB per month⁴³ and others suggesting 60 GB.⁴⁴ However, a 20 GB limit would fall well short of existing fixed broadband usage levels – over two-thirds of cable and fiber subscribers currently consume in excess of 20 GB of data per month.⁴⁵ Nor are we convinced we should establish a minimum usage allowance of 60 GB for price cap carriers accepting model-based support. Over 30 percent of current fiber and cable subscribers consumed in excess of 60 GB of data per month, and consumers are likely to consume more, not less, over time.⁴⁶ We are guided by the Commission’s statement that “Americans should have access to broadband that is capable of enabling the kinds of key applications that drive our efforts to achieve universal broadband, including education (e.g., distance/online learning), health care (e.g., remote health monitoring), and person-to-person communications (e.g., VoIP or online video chat with loved ones serving overseas).”⁴⁷ While the Commission recognized that service

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 (last visited Oct. 31, 2013). Video figures are taken from Netflix, based on the rate for “best quality” video. Netflix, Manage Bandwidth Usage, <https://support.netflix.com/en/node/87> (last visited Oct. 31, 2013).

⁴⁰ *Phase II Service Obligations Public Notice*, 28 FCC Rcd at 1522, para. 21-22.

⁴¹ An offering with a usage allowance of less than 100 GB per month may still satisfy the requirement, so long as a consumer can purchase additional data and the total cost of the plan plus additional data does not exceed the price requirement. For example, assume the pricing requirement for broadband is \$60. A particular offering has a usage allowance of 80 GB for \$50, with the option to buy additional data at \$.50 per GB. A consumer could obtain 100 GB for \$60, and thus the offering would satisfy the usage allowance requirement.

⁴² These are cumulative activities (i.e., with 100 GB of data usage, a household could watch 95 hours of video, send/receive 5,000 e-mails, *and* load 14,500 websites) that could occur with the minimum monthly usage allowance.

⁴³ See ViaSat Comments at 7; WISPA Comments at 7; Reply of the Wireless Internet Service Providers Association, WC Docket No. 10-90, at 6 (filed Apr. 12, 2013) (WISPA Reply).

⁴⁴ See, e.g., USTelecom Comments at 10; ITTA Comments at 8.

⁴⁵ See MBA February 2013 Report at 48.

⁴⁶ See CISCO, VISUAL NETWORKING INDEX: FORECAST AND METHODOLOGY, 2012-2017, 9 (2013), at http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-481360.pdf (predicting a 23 percent compound annual growth rate in data usage).

⁴⁷ *USF/ICC Transformation Order*, 26 FCC Rcd at 17695, para. 82 (citations omitted).

obligations may need to be relaxed in some fashion for extremely high cost areas,⁴⁸ we conclude that a usage limit of 20 GB, or 60 GB, for price cap carriers accepting model-based support is not consistent with the robust, scalable networks that the Commission expects such providers to deploy.

18. We require price cap carriers accepting model-based Phase II support to offer a minimum usage allowance over the course of Phase II's five-year term that remains consistent with trends in usage for 80 percent of consumers using cable or fiber-based fixed broadband services. As an alternative to any national data set (such as Measuring Broadband America) that demonstrates trends in usage over time, we will deem a price cap carrier to be in compliance with this usage allowance requirement in future years if its minimum usage allowance for Connect America funded locations is at least 100 GB and is at or above the usage level for 80 percent of all of its broadband subscribers, including those subscribers that live outside of Phase II funded areas.⁴⁹ Given the size and scale of most price cap carriers, it is reasonable to presume that their individual data would be consistent with national data, and this alternative will enable price cap carriers to anticipate how their usage allowances may change in the future.

19. *Latency.* In the *USF/ICC Transformation Order*, the Commission required Phase II recipients to provide latency sufficient for real-time applications, such as VoIP.⁵⁰ In this section, we describe how we will implement this requirement for price cap carriers that accept Phase II model-based support.⁵¹

20. We agree with WISPA that because latency can be defined and measured in many ways, “a clear, workable, measureable definition of ‘latency’” is necessary.⁵² We also agree with commenters that argue the Commission should base its performance metrics on “empirical data.”⁵³ After consideration of the record, we therefore base our standard on the International Telecommunication Union (ITU) G.114 design objectives.⁵⁴ ITU Standard G.114 provides that consumers are “very satisfied” with the quality of VoIP calls up to a mouth-to-ear latency of approximately 200 ms.⁵⁵ The ITU has determined that

⁴⁸ *Id.* at 17837-38, para. 533 (recognizing it may be appropriate to modestly relax broadband performance obligations for Remote Areas Fund areas).

⁴⁹ The 100 GB minimum usage allowance acts as a floor. Even if 80 percent of a particular price cap carrier's customers used less than 100 GB, the minimum usage allowance for Phase II funded locations remains at 100 GB. Carriers should be prepared to provide information, in the course of an audit, regarding the information source upon which they are relying to adjust or maintain their minimum usage allowance. For instance, an officer could certify that the minimum usage allowance was determined based on the carrier's own usage profile for its customer base.

⁵⁰ 47 C.F.R. § 54.312(b)(4).

⁵¹ Our decision here does not prejudice how this requirement may be implemented for other aspects of Phase II or the Remote Areas Fund.

⁵² WISPA Comments at 6; *see also* USTelecom Comments at 10 (“To avoid any confusion, the Bureau should specify a discrete number” for latency).

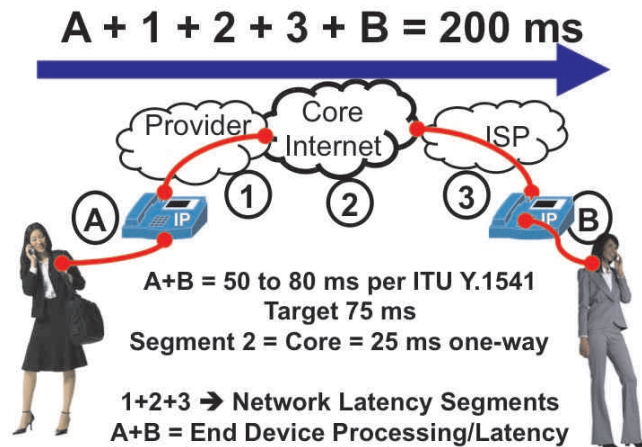
⁵³ Reply of US Cellular, WC Docket No. 10-90, at 15 (filed Apr. 12, 2013); *see also* WISPA Reply at 5; ViaSat Comments at 2.

⁵⁴ A number of commenters cite the ITU's determinations on latency, while none has put forth any other basis for determining appropriate latency for VoIP. This supports our use of the ITU design objective to set performance standards. *See, e.g.*, ITTA Comments at 8; AT&T Comments at 8; ADTRAN Comments at 13-14; Reply of ADTRAN, WC Docket No. 10-90, at 8 (filed Apr. 12, 2013). Those recommending use of the mouth-to-ear ITU design objective were not clear, however, regarding which segments of a mouth-to-ear path were included within their recommended latency measure.

⁵⁵ International Telecommunication Union, Telecommunication Standardization Sector, Series G: Transmission Systems and Media, Digital Systems and Networks, G.114 at 3 (Figure 1/G.114—Determination of the effects of absolute delay by the E-model) (May 2003) (ITU Series G).

consumers become less satisfied with the quality of VoIP calls when total mouth-to-ear latency is above 200 ms.⁵⁶ Therefore, we conclude that a reasonable approach is a framework that should result in mouth-to-ear latency of 200 ms or less.

21. We recognize that price cap carriers accepting model-based support may not presently have a way to measure end-to-end latency,⁵⁷ and therefore adopt an approach that allows them to certify they are meeting the Commission's requirements based on a provider round-trip latency measure. The ITU latency calculations are "mouth-to-ear" one-way path measurements which include: the signal conversion at the input (the conversion of the speaker's voice to digital packets); the broadband provider's network path from the input device to the Internet core; the path through the Internet core; the broadband provider's network path from the Internet core over the provider's network to the output device; and the signal conversion at the output device (the conversion of the digital packets back to voice for the listener). ITU Standard Y.1541 calculates input and output terminal conversion delays together to be between 50 and 80 ms.⁵⁸ Based on these ITU calculations and other research, we use 75 ms for purposes of calculating conversion delays.⁵⁹ An assumed conversion delay of 75 ms means that the total latency for the network path to the Internet core, the Internet core, and the network path from the Internet core to the output device would need to be no greater than 125 ms if 200 ms mouth-to-ear latency limit is to be maintained.



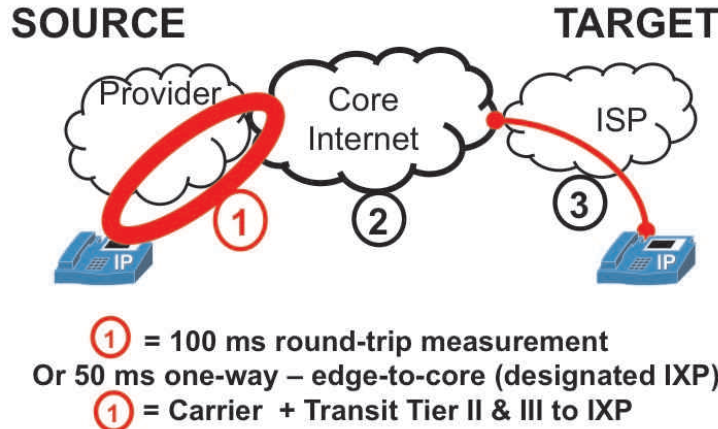
⁵⁶ *Id.*

⁵⁷ See, e.g., Comments of Alaska Communications Systems, WC Docket No. 10-90, at 7 (filed Mar. 28, 2013) (ACS Comments). Certain standards setting bodies are working to develop a methodology for end-to-end latency testing, but no such methodology is currently available. See AT&T Comments at 7 n.16 (noting that the Broadband Forum/Internet Engineering Task Force (IETF) is working on latency standards); see also IETF Proposed Working Group, Large Scale Measurement of Access Network Performance (lmap), <https://datatracker.ietf.org/wg/lmap/> (last visited Oct. 31, 2013). In the event the IETF adopts latency standards or means of measuring latency that differ from the standards or means announced in this Order, we reserve the right to make adjustments to our approach for price cap carriers accepting model-based support to take into account the IETF's findings.

⁵⁸ International Telecommunication Union, Telecommunication Standardization Sector, Series Y: Global Information Infrastructure, Internet Protocol Aspects and Next-Generation Networks, App. VII at 35 (Dec. 2011) (ITU Series Y).

⁵⁹ See *id.*; Wenyu Jiang, Kazuomi Koguchi & Henning Schulzrinne, QoS Evaluation of VoIP End-points, IEEE International Conference on Communications, ICC '03, (2003) available at http://www.cs.columbia.edu/~wenyu/papers/icc_2003.pdf.

22. Based on ITU calculations⁶⁰ and reported core latencies in the contiguous United States,⁶¹ we assume 50 ms as the roundtrip (25 ms one way) core Internet latency in our calculations. The assumed 75 ms for conversion delay and assumed 50 ms (25 ms one way) for the Internet core path means that the provider network path from the input device to the Internet core and from the Internet core to the output device must be no more than 100 ms (50 for each provider segment) in order to maintain an overall mouth-to-ear latency limit of 200 ms. Because existing network management systems, ping tests, or other commonly available network measurement tools typically calculate latency as a round-trip measurement, we adopt a 100 ms provider latency round-trip limit, which is consistent with the 50 ms one-way latency assumption for the path from the input device to the Internet core.



23. To show that it is meeting this standard, a price cap carrier accepting model-based support will need to certify that 95 percent or more of all peak period measurements (also referred to as observations) of network round trip latency are at or below 100 ms.⁶² As suggested in the *Phase II Service Obligations Public Notice*, measurements should be taken during peak period (defined as

⁶⁰ ITU Series Y, App. III at 23-25.

⁶¹ Information from the following Tier I providers was used to calculate the 50 ms core latency: AT&T; Deutsche Telekom; CenturyLink/Qwest; COGENT; NTT; SAVVIS; Sprint; Verizon; and XO Communications. *See, e.g.*, AT&T Network Averages, available at <http://ipnetwork.bgtmo.ip.att.net/pws/averages.html> (last visited Oct. 31, 2013); Deutsche Telekom IP Transit—Service Parameters, available at http://www.download.ghs.de/ICSS/StaticPage/33/04/90/IP%20Transit%20-%20Technical.pdf_330490.pdf (last visited Oct. 31, 2013); Qwest Internet Service Level Agreement, available at http://qwest.centurylink.com/legal/docs/Qwest_Internet_Network_SLA_102103.pdf (last visited Oct. 31, 2013); Cogent Performance Measures, available at <http://www.cogentco.com/en/network/performance> (last visited Oct. 31, 2013); NTT Communications Provides High-Quality Global IP Network Service with Industry Leading SLA, available at http://www.ntt.net/english/service/sla_ts.html (last visited Oct. 31, 2013); Savvis Global Internet Backbone (AS3561) SLA Performance Statistics, available at <http://ipsla.savvis.net/index.jsp> (last visited Oct. 31, 2013); Sprint SLA Performance, available at https://www.sprint.net/sla_performance.php (last visited Oct. 31, 2013); Verizon IP Latency Statistics, available at <http://www.verizonenterprise.com/about/network/latency/> (last visited Oct. 31, 2013).

⁶² Excluding 5 percent of measurements will ensure that the results are not unreasonably affected by a few outlying observations. The same approach also would apply to unsubsidized competitors in census blocks that meet the funding thresholds to be determined by the Bureau for Phase II model-based support.

weeknights between 7:00 pm to 11:00 pm local time) between the customer premises and the closest designated Internet core peering interconnection point (often referred to as an Internet Exchange Point - IXP).⁶³ The measurements should be conducted over a minimum of two consecutive weeks during peak hours for at least 50 randomly-selected customer locations within the census blocks of each state for which the provider is receiving model-based support using existing network management systems, ping tests, or other commonly available network measurement tools.⁶⁴

24. We acknowledge that measuring latency is a complex task that requires detailed testing protocols. To minimize the cost of testing and ensure that it can be done relatively quickly, we will allow providers to rely on existing network management systems, ping tests, or other commonly available network measurement tools. Although we recognize that these types of tests have drawbacks, such as a possible low priority handling/response times at target servers,⁶⁵ low quality of service (QoS) handling/packet drops in intermediate nodes,⁶⁶ and generally small packet sizes,⁶⁷ we conclude that this approach strikes the appropriate balance of implementing Phase II quickly, with some assurance that

⁶³ For the purposes of this Order, we define IXPs as occurring in the following locations: New York City, NY; Washington, DC; Atlanta, GA; Miami, FL; Chicago, IL; Dallas-Fort Worth, TX; Los Angeles, CA; San Francisco, CA; Seattle, WA; and Denver, CO. For testing purposes, providers may use publicly available servers at these locations (such as speedtest.net servers). All of the IXPs identified above, except Denver, are the current locations used by the Measuring Broadband America (MBA) program, which selected these locations because they are geographically distributed major U.S. Internet peering locations. *See, e.g.*, FCC'S OFFICE OF ENGINEERING AND TECHNOLOGY AND CONSUMER AND GOVERNMENTAL AFFAIRS BUREAU, MEASURING BROADBAND AMERICA 2011 REPORT, Technical App. at 19-20, http://transition.fcc.gov/cgb/measuringbroadbandreport/technical_appendix/Technical_Appendix_Full.pdf. Denver was added to ensure all contiguous areas in the USA are within 700 miles of an IXP. As explained in paragraph 35, *infra*, providers located in non-contiguous areas can use a point at which traffic is consolidated for transport to an IXP in the continental United States.

⁶⁴ For those states in which a provider receives model-based support for 2,000 or fewer lines, a provider must conduct measurements for at least 20 randomly-selected customer locations, rather than 50. Providers should document, and maintain records and data from, the testing on which the annual certification is based, and be prepared to produce such documentation if audited.

⁶⁵ Ping tests are based upon ICMP (Internet Control Message Protocol) and are often treated as a low priority task by destination/target servers and routers. This is referred to as "process delay." The Cisco website describes ping and TRACEROUTE command performance at the destination as: "When a packet destination is the router itself, this packet has to be process-switched. The processor has to handle the information from this packet, and send an answer back. This is not the main goal of a router. By definition, a router is built to route packets. Answering a ping is offered as a best-effort service." Cisco, Understanding Ping and Traceroute Commands, http://www.cisco.com/en/US/products/sw/iosswrel/ps1831/products_tech_note09186a00800a6057.shtml (last visited Oct. 31, 2013).

⁶⁶ Many network administrators implement traffic engineering and/or performance management capabilities in their networks. Often this implementation will include the configuration of QoS policies on the routers and network devices under their control. The specific QoS policies implemented can direct the router to place defined traffic/packets, i.e., PING/ICMP packets, into low priority output queues. Thus, the PING/ICMP packets can experience more delay (latency) at individual routers before they continue on their path, as they wait in these lower priority queues. This is referred to as "queuing delay."

⁶⁷ *See, e.g.*, INTERNET ENGINEERING TASK FORCE, FRAMEWORK FOR TCP THROUGHPUT TESTING (REQUEST FOR COMMENT 6349) 11 (Aug. 2011), <http://tools.ietf.org/html/rfc6349>. Often small packets can receive lower priority processing by routers in its path – this is also referred to as "process delay." *See* Stoke, Why Do Small Packet Sizes Matter in Your Network Planning, <http://www.stoke.com/lte/index.asp> (last visited Oct. 31, 2013) ("However, many network equipment suppliers optimize equipment for large packet sizes only, with performance falling off rapidly as packet sizes get smaller and the packets per second (PPS) numbers soar").

Phase II funded locations will have the service that the Commission expects, without requiring carriers accepting model-based support to make a significant investment in testing infrastructure.

25. As an alternative to conducting ping-like tests, carriers participating in the MBA program may use the results from that testing to support certification that they meet the latency requirement.⁶⁸ To use MBA results, carriers will need to deploy at least 50 white boxes to customers within the Phase II-funded areas within each state, i.e. at least 50 white boxes per state distributed throughout the Phase II-funded areas within that state. The white box costs and any associated administrative costs imposed by the MBA program would be the carrier's responsibility. Because white boxes take measurements on a continuous basis, a carrier would prove compliance with the latency limit by certifying that 95 percent or more of the measurements taken during peak periods for a period of two weeks were at or below 100 ms.

26. We are not persuaded by AT&T's argument that the Commission should not set a specific numerical latency standard and should instead "assume that wireline networks capable of delivering speeds of 4/1 and greater will meet the latency requirements for real-time applications such as VoIP."⁶⁹ Although results from the most recent MBA testing show that providers using fiber, cable, or DSL technology are generally able to meet or exceed 100 ms provider-round trip latency 95 percent limit, MBA testing is currently limited to only large providers.⁷⁰ Not all of the price cap carriers eligible for Phase II support are participating in this program and, in any event, we have no assurance that the measurements taken in MBA are taken at Phase II-funded locations. Moreover, MBA testing results show that there can be a great disparity in latency among different locations served by a single provider.⁷¹ We conclude it is necessary for carriers to test latency in the census blocks where they will be receiving Phase II funding, and not rely on MBA data that may be derived from other locations.

27. We also disagree with ViaSat's argument that "network latency need not impact the end-user experience" and that adoption of a numerical latency standard could "violate the Commission's policy of technological neutrality."⁷² To the contrary, the ITU's extensive VoIP calculations show that consumer satisfaction is improved by lower latency.⁷³ Further, adoption of a numerical standard designed to meet reasonable regulatory objectives does not violate technological neutrality simply because some technologies or service providers cannot meet that standard. Failing to specify how the Commission's requirements will be enforced in practical terms that can be incorporated into business planning would be a disservice both to price cap carriers accepting Phase II support and to consumers that stand to benefit from Phase II deployments. Quantifiable metrics provide certainty to these price cap carriers at the time they accept funding: they are aware of the specific performance standards they must meet in order to satisfy their obligations. These metrics also give federal and state regulators a bright line standard against which to hold these Phase II recipients accountable, ensuring that they perform in line with expectations. Failing to provide such clarity would result in obligations that are difficult to anticipate, difficult to measure, and difficult to enforce.

⁶⁸ New, as well as current, participants in the MBA program may use this alternative. Any carrier choosing this alternative will need to comply with any MBA requirements.

⁶⁹ AT&T Comments at 7.

⁷⁰ MBA February 2013 Report at 40-41 (Figure 1).

⁷¹ See, e.g., FCC'S OFFICE OF ENGINEERING AND TECHNOLOGY AND CONSUMER AND GOVERNMENTAL AFFAIRS BUREAU, MEASURING BROADBAND AMERICA 2013 REPORT, VALIDATED DATA – 2013, <http://www.fcc.gov/measuring-broadband-america/2013/validated-data-february-2013>.

⁷² ViaSat Comments at 8-9.

⁷³ ITU Series G at 3.

28. We note that we are adopting a more lenient approach than the 60 ms average latency standard the Bureau originally proposed in the Public Notice. We do so after consideration of the ITU conclusion that consumers are “very satisfied” with the quality of VoIP calls up to an ear-to-mouth latency of approximately 200 ms and the record received in this proceeding.⁷⁴ We agree that the ITU data for a VoIP call are an appropriate basis for determining latency sufficient for this aspect of Phase II, and we believe the 100 ms limit adopted herein is consistent with ITU data.

29. We disagree with ACS that “[i]t is particularly important to develop testing solutions not dependent on customer usage, as there is an expected increase in latency over Internet Protocol networks as customer usage nears the peak capacity of the service.”⁷⁵ Although we agree that latency is affected by customer usage, this does not lead to a conclusion that testing should be done at times of low customer usage. Latency sufficient for real-time applications such as VoIP must be available to consumers during the time they use the Internet. A network with low latency does not benefit most consumers if the low latency is only available when few customers are using the Internet. Therefore, we have adopted testing specifications that require testing to be conducted during the peak hours, weeknights between 7:00 pm to 11:00 pm local time. We believe that measurements conducted during the peak period will demonstrate the latency experienced by the majority of customers.

30. We do not believe that the testing methodology we have adopted will impose an undue burden on providers,⁷⁶ as there are readily available hardware and software solutions for conducting such testing. The latency testing requires only 50 Phase II-funded locations in a state to be measured over a two-week period per quarter using existing or readily acquired network management or performance management systems. Many providers already perform network management tests to monitor network performance. Network devices commonly support ICMP and SNMP, as well as other vendor-specific tests such as Cisco’s IP service level agreement (SLA) command line.⁷⁷ In addition, for those carriers that either currently participate in or join the MBA program, we will allow the use of MBA test results from Phase II-funded locations as an alternative basis for certifying compliance with our requirements. Therefore, even if a provider does not already have a testing mechanism in use for its network, the means to conduct such testing are readily available.

31. We are not persuaded by USTelecom’s claims that testing should be “between the customer premises to the provider’s transit or peering interconnection point, at least in cases where there is a transit or peering interconnection point located in the same state as the customer premises being measured.”⁷⁸ The Commission determined that latency should be sufficient to allow consumers to make use of real-time applications such as VoIP. Testing latency on only a portion of the network connecting a consumer

⁷⁴ ITTA Comments at 9; AT&T Comments at 8; WISPA Comments at 6; Reply of USTelecom, WC Docket No. 10-90, at 7-8 (filed Apr. 12, 2013).

⁷⁵ ACS Comments at 7-8.

⁷⁶ See AT&T Comments at 7; ACS Comments at 7-8.

⁷⁷ See, e.g., INTERNET ENGINEERING TASK FORCE NETWORK WORKING GROUP, A SIMPLE NETWORK MANAGEMENT PROTOCOL (SNMP) (May 1990), <http://www.ietf.org/rfc/rfc1157.txt?number=1157> (stating that SNMP is a full Internet standard).

⁷⁸ USTelecom Comments at 10-11. The Rural Associations ask that latency be defined as a “network-based standard” because “companies operating in remote areas of the nation typically only control the performance of ‘last-mile’ facilities.” Comments of NTCA – The Rural Broadband Association et al., WC Docket No. 10-90, at 5 (filed Apr. 12, 2013). The decision to reject USTelecom’s approach only applies to price cap carriers accepting model-based support (and will be the framework applied to companies that are unsubsidized competitors in census blocks served by those price cap carriers). We do not decide here what approach may be adopted for rate-of-return companies or other aspects of Phase II.

to the Internet core will not show whether that customer is able to enjoy high-quality real-time applications because it is network performance from the customer's location to the destination that determines the quality of the service from the customer's perspective.

32. Further, while a price cap carrier accepting Phase II model-based support may not have direct control over any middle-mile or transit providers with which it connects, it does have influence over its transit providers. For example, a last-mile provider can compare the quality of service offered by transit providers and select one with a higher quality of service. In addition, the last-mile provider can improve its latency by purchasing additional capacity from the transit provider or by negotiating a SLA. Last-mile providers can also implement dual homing to more than one transit provider to ensure a higher quality of service. Measuring latency from the customer location to designated Internet exchange points will show if customers are being provided with service that allows use of real-time applications by giving price cap carriers accepting Phase II model-based support strong incentives to maintain a high-quality network and to use sufficient, high-quality transit providers.

33. We conclude that the metrics we adopt today provide sufficient flexibility that price cap carriers serving markets with unique conditions, such as Alaska, will be able to make the necessary certifications.⁷⁹ ACS argues that when measuring broadband latency in Alaska, the Commission must take into account the long transmission facilities in Alaska, which often include point-to-point microwave, satellite transport, and undersea cable, as well as the remote location of Internet exchange points.⁸⁰ We do not believe that the use of point-to-point microwave links will adversely affect the latency of broadband services in most cases. ITU planning values for delays of different technologies indicate that coaxial fiber has a higher delay time at 5 microseconds per kilometer whereas microwave transmissions (radio-relay) are at 4 microseconds per kilometer.⁸¹ Indeed, there has recently been renewed interest in microwave technology to support low-latency applications.⁸²

34. Conversely, the use of geostationary satellite technologies would substantially affect a price cap carrier's ability to meet the 200 ms end-to-end latency standard we adopt herein. Although satellite transmissions travel at rates faster than copper, cable, or fiber transmissions, the satellite's distance from Earth makes achievement of the 200 ms end-to-end transmission (100 ms limit for the round-trip carrier portion) impossible. Therefore, we presume that ACS would not include customers served by satellite technologies in the 50 measurement locations required for latency testing.⁸³ ACS has not alleged that a

⁷⁹ ACS Comments at 7-8.

⁸⁰ *Id.* at 7.

⁸¹ International Telecommunication Union, Telecommunication Standardization Sector, Transmissions and Media, General Characteristics of International Telephone Connections and International Telephone Circuits, One-Way Transmission Time, ITU-T Recommendations G.114, at 3-4 (Table A.1) (Feb. 2006).

⁸² See, e.g., Mark Hachman, Microwaves Could Solve Need for Long-Haul, Low-Latency Networks, <http://slashdot.org/topic/datacenter/microwaves-could-solve-need-for-long-haul-low-latency-networks/> (Feb. 28, 2013); Markets Media, Microwave Beginning to Offer Low Latency Alternative to Fiber, <http://marketsmedia.com/microwave-offers-low-latency-alternative-to-fiber/> (Jan. 21, 2013); David Wigman, Analysis: Low Latency Battle Takes to the Airwaves, <http://www.fow.com/Article/3132706/Analysis-Low-latency-battle-takes-to-the-airwaves.html> (Dec. 18, 2012).

⁸³ In the event that the random selection of locations includes a location served by satellite technologies, due to the inclusion of locations served by satellite backhaul where there are no available terrestrial backhaul options, 47 C.F.R. § 54.313(g), ACS may exclude that customer and select another random location in its place.

majority, or even a substantial number, of its customers are served by satellite technologies, so elimination of satellite customers from testing calculations should resolve this concern.⁸⁴

35. ACS also alleges that the use of undersea cable in its network and the distance between customers and Internet exchange points could affect ACS's ability to meet the latency standard. It is possible that the use of undersea cable, depending upon the type and length of cable, could affect latency determinations for providers serving Alaska. Therefore, providers in noncontiguous areas of the United States should conduct their latency network testing from the customer location to a point at which traffic is consolidated for transport to an Internet exchange point in the continental United States. For example, speedtest.net has five servers located in Anchorage, Alaska, and one in Fairbanks, Alaska, that could be used for network testing.⁸⁵ Although we allow providers in noncontiguous areas of the United States to conduct their latency network testing from the customer location to a point at which traffic is consolidated for undersea cable transport to an IXP in the continental United States, we may not extend this exception to other circumstances without additional evidence that such an exception is warranted. We note that MBA 2013 data results show that the 25 Time Warner Cable-based customer locations in Hawaii were able to meet the 100 ms limit 95 percent or more of the time. Hawaii, at approximately 2,500 miles from the continental United States, is over double the undersea cable distance from a continental United States-based IXP as Anchorage, Alaska.⁸⁶

36. ACS notes that with peering points "over a thousand miles away in Oregon and Washington," its ability to conduct testing and improve results is limited.⁸⁷ Our decision that testing for noncontiguous parts of the United States should be conducted between the customer location and the point at which traffic is aggregated for transport to the continental United States via undersea cable should resolve this issue. Moreover, for remote points within Alaska, MBA testing data shows that although there is a correlation between distance and latency, the 200 ms end-to-end standard (100 ms roundtrip limit 95 percent or more of the time for the carrier portion) is reasonable for distances of 700 or more miles, as data from Measuring Broadband America testing in Hawaii shows. The MBA February 2013 Report shows that the mean latency for measurements 700 miles from the test server was 44.7 ms roundtrip.⁸⁸ Thus, even for customer locations in Alaska located a substantial distance from a point used for aggregating traffic for transport to the continental United States, an Alaska provider should be able to meet the 200 ms end-to-end standard (100 ms roundtrip limit for the carrier portion).

37. *Buildout Measurement.* In order to satisfy their state-level commitment, Phase II recipients must deploy voice and broadband-capable networks and offer services meeting the above performance

⁸⁴ While Alaska presents unique circumstances regarding the use of satellites for backhaul, we conclude that the Commission did not intend for price cap carriers in the contiguous United States to meet their Phase II buildout obligations by partnering with satellite providers to provide retail broadband Internet access service. *See, e.g., USF/ICC Transformation Order*, 26 FCC Rcd at 17699-700, para. 101 (noting the unique backhaul issues presented in Alaska, and stating that the exception for satellite backhaul does not apply to carriers that have a terrestrial backhaul option). Excluding customers served by satellite from testing calculations therefore would be permissible in Alaska, but is not warranted in the contiguous United States, where terrestrial backhaul is widely available. The extent to which satellite's latency is acceptable in other contexts, particularly the Remote Areas Fund, will be addressed in other orders.

⁸⁵ A map showing speedtest.net servers is available at www.speedtest.net.

⁸⁶ *See, e.g.,* FCC'S OFFICE OF ENGINEERING AND TECHNOLOGY AND CONSUMER AND GOVERNMENTAL AFFAIRS BUREAU, MEASURING BROADBAND AMERICA 2013 REPORT, VALIDATED DATA – 2013, <http://www.fcc.gov/measuring-broadband-america/2013/validated-data-february-2013>.

⁸⁷ ACS Comments at 7.

⁸⁸ MBA February 2013 Report, file `curr_udplateny.csv`.

metrics to a specified number of locations. We expect to release a Public Notice specifying the number of locations that recipients of model-based support will be required to serve, based on the Connect America Cost Model, state by state, so that carriers are aware at the time of acceptance the required number of locations. Three years after making a state-level commitment, a carrier must have deployed voice and broadband-capable networks to 85 percent of the specified number of locations in the given state.⁸⁹ Five years after making a state-level commitment, a carrier must have deployed voice and broadband-capable networks to the total number of locations as specified by the Bureau.

38. Generally, all deployment must occur in census blocks funded under the Connect America Cost Model. However, the *USF/ICC Transformation Order* states that “[i]n meeting its obligation to serve a particular number of locations in a state, an incumbent that has accepted the state-level commitment may choose to serve some census blocks with costs above the highest cost threshold instead of eligible census blocks (i.e., census blocks with lower costs), provided that it meets the public interest obligations in those census blocks, and provided that the total number of unserved locations and the total number of locations covered is greater than or equal to the number of locations in the eligible census blocks.”⁹⁰ Thus, a carrier could build to one of these higher-cost locations in lieu of building to a location in one of its eligible census blocks as originally planned.⁹¹

B. Unsubsidized Competitors

39. In adopting the *USF/ICC Transformation Order*, the Commission directed that Phase II support should not go to any “areas where an unsubsidized competitor offers broadband service that meets the broadband performance requirements” of Phase II.⁹² An unsubsidized competitor is defined as a facilities-based provider of residential terrestrial fixed voice and broadband service that does not receive high-cost support.⁹³ The Commission delegated to the Bureau the task of implementing the specific requirements of the unsubsidized competitor rule and determining what areas should be considered as served by an unsubsidized competitor.⁹⁴ In the *Phase II Challenge Process Order*, the Bureau determined that an area would be presumed as served by an unsubsidized competitor if the area was shown on the National Broadband Map as served by a provider with speeds of 3 Mbps/768 kbps, and that provider was shown on Form 477 data as providing voice service in that state.⁹⁵ Thus, a potential unsubsidized provider need only make a showing regarding the metrics discussed in this Order in two circumstances: first, if it challenges an area initially designated as unserved, claiming that the area should instead be treated as served; or second, if it is responding to a challenger’s claim that one of the census blocks shown as served by the provider is in fact unserved.⁹⁶

⁸⁹ *USF/ICC Transformation Order*, 26 FCC Rcd at 17726, para. 161.

⁹⁰ *Id.* at 17729, para.171 n.279.

⁹¹ If a carrier chooses to deploy to these higher cost locations, those locations must be reported in the carrier’s annual progress report. 47 C.F.R. § 54.313(a)(1). Those reported locations will be checked to ensure that they meet the eligibility criteria for Phase II, including that they are unserved by an unsubsidized competitor.

⁹² *USF/ICC Transformation Order*, 26 FCC Rcd at 17729, para. 170.

⁹³ *Id.* at 17701, para. 103.

⁹⁴ *Id.* at 17729, para. 170.

⁹⁵ *Phase II Challenge Process Order*, 28 FCC Rcd at 7216, para. 11.

⁹⁶ Some commenters suggested that unsubsidized competitors should be required to make certain certifications that they are willing to deploy to all locations in the census blocks in which they serve or that they are able to comply with the obligations and reporting requirements demanded of a universal service fund recipient. *See, e.g.*, Reply of

(continued...)

40. Consistent with the Commission's direction in the *USF/ICC Transformation Order*, we conclude that unsubsidized competitors should meet the same standards we require of Phase II price cap carrier recipients.⁹⁷ To exclude an area from Phase II support, an unsubsidized competitor must be offering broadband and voice service that would meet the Commission's requirements for price cap carriers receiving model-based support.⁹⁸ However, certain adjustments are necessary, not only to make an administrable system for determining what areas should be excluded from support, but also to account for the diversity of circumstances that potential unsubsidized competitors face.

41. *Unsubsidized competitor.* The Commission directed the Bureau to exclude areas with unsubsidized competitors from Phase II funding. The codified rule states that an unsubsidized competitor is one that "does not receive high-cost support." The Commission's intent in adopting this rule was to preclude support to areas where voice and broadband is available without burdening the federal support mechanisms. We will presume that any recipient of high-cost support at the time the challenge process is conducted does not meet the literal terms of the definition, but will entertain challenges to that presumption from any competitive eligible telecommunications carrier that otherwise meets or exceeds the performance obligations established herein and whose high-cost support is scheduled to be eliminated during the five-year term of Phase II.⁹⁹ This will provide an opportunity for the Commission to consider whether to waive application of the "unsubsidized" element of the unsubsidized competitor definition in situations that would result in Phase II support being used to overbuild an existing broadband-capable network.¹⁰⁰

42. *Speed.* In the *Phase II Service Obligations Public Notice*, we sought comment on what proxy we should use for the requirement that an unsubsidized competitor provides 4 Mbps/1 Mbps

(Continued from previous page)

Alexicon Telecommunications Consulting, WC Docket No. 10-90, at 3 (filed Apr. 12, 2013); Reply of GNVW Consulting, WC Docket No. 10-90, at 6 (filed Apr. 12, 2013). We agree that to be an unsubsidized competitor, a provider must be offering service throughout the area in question. We are not persuaded, however, that we should require unsubsidized competitors to comply with the reporting requirements of a funding recipient. Many of the reporting requirements focus on oversight of public funds. As unsubsidized competitors, by definition, do not receive universal service funds, there is no reason to impose such reporting obligations on them.

⁹⁷ This parity between Phase II recipients and unsubsidized competitors was generally supported in the record. *See, e.g.*, ADTRAN Comments at 6-7. However, some parties argued that unsubsidized competitors should not be held to the same standards given they deployed their networks without the advantage of government subsidies, and thus for economic reasons may offer lower usage allowances or speeds. *See* NCTA Comments at 3. We disagree, and adopt a uniform standard for both Phase II recipients and unsubsidized competitors. The Commission directed the Bureau to exclude areas where an unsubsidized competitor meets the broadband performance requirements "described above," referring to the earlier discussion in the *USF/ICC Transformation Order* of public interest obligations for ETCs. *USF/ICC Transformation Order*, 26 FCC Rcd at 17729, para. 170.

⁹⁸ In the event a would-be unsubsidized competitor is filing or responding to a challenge, the service obligations in question must be met at the time it makes its filing. For those characteristics that are readily changeable, such as price or usage allowance, it would be more persuasive evidence if the would-be unsubsidized competitor commits to meeting those criteria for the five-year term of Phase II. Without such evidence, a would-be unsubsidized competitor theoretically could merely satisfy the criteria during the pendency of the challenge process, with no intent to continue meeting them after the challenge is resolved.

⁹⁹ *See USF/ICC Transformation Order*, 26 FCC Rcd at 17832, para. 519.

¹⁰⁰ *See* Reply Comments of General Communications, Inc., WC Docket No. 10-90, at 5-8 (filed Apr. 12, 2013). We note that the Commission has not yet defined "unsubsidized competitor" for purposes of support for mobile services. We are not prejudging any actions that may be taken in the future on questions relating to unsubsidized competitors in other contexts.

service.¹⁰¹ Providers meeting this proxy would be presumed to meet the speed requirement of an unsubsidized competitor. We conclude that the proxy for 4 Mbps/1 Mbps broadband should be set at 3 Mbps/768 kbps, as data on 3 Mbps/768 kbps deployment are available on the National Broadband Map.¹⁰² This is consistent with the precedent established by the Commission in the *USF/ICC Transformation Order*, as well as its conclusions in the *Phase I Order*.¹⁰³ Commenters note that areas served by an unsubsidized competitor with speeds of 3 Mbps/768 kbps are often already served by speeds of 4 Mbps/1 Mbps.¹⁰⁴ If we were to use a 6 Mbps/1.5 Mbps proxy,¹⁰⁵ areas served by speeds of only 4 Mbps/1 Mbps would be presumed unserved. This would have the effect of burdening potential unsubsidized competitors, many of which are small businesses, requiring them to come forward in the challenge process discussed in the *Phase II Challenge Process Order* and show that they are actually providing 4 Mbps/1 Mbps service.¹⁰⁶

43. *Pricing.* Under the presumptions the Bureau adopted in the *Phase II Challenge Process Order*, a provider would be initially presumed to meet the reasonably comparable pricing requirement, so long as it was shown on the National Broadband Map as offering 3 Mbps/768 kbps service and shown on Form 477 data as offering voice service in the relevant state.¹⁰⁷ We now adopt a conclusive presumption that a potential unsubsidized competitor is offering reasonably comparable prices if it offers the same or lower rates in rural markets as it does for fixed wireline offerings meeting the requisite standards in urban

¹⁰¹ The Commission previously concluded that because data on 4 Mbps/1 Mbps broadband is not widely available, a proxy may be used in its place. See *USF/ICC Transformation Order*, 26 FCC Rcd at 17701, para. 103 n.168. For download speeds, the closest available data sets are for broadband with speeds 3 Mbps and 6 Mbps. For upload speeds, the closest available data sets are 768 kbps and 1.5 Mbps.

¹⁰² We note that the Commission recently adopted an order that will require providers to file deployment and subscription data about the specific advertised speeds they offer, rather than filing data on government-prescribed speed tiers. *Modernizing the FCC Form 477 Data Program*, WC Docket No. 11-10, Report and Order, 28 FCC Rcd 9887, 9899, para. 25 (2013). That data is expected to be collected in September 2014.

¹⁰³ See *USF/ICC Transformation Order*, 26 FCC Rcd at 17701, para. 103 n.168 (using a 3 Mbps/768 kbps proxy); see also *Connect America Fund*, WC Docket No. 10-90, 28 FCC Rcd 7766, 7772, para. 16 n.38 (2013) (reaffirming the use of the 3 Mbps/768 kbps proxy for Phase I) (*Phase I Order*).

¹⁰⁴ See Reply Comments of the American Cable Association, WC Docket No. 10-90, at 4-5 (filed Apr. 12, 2013).

¹⁰⁵ See, e.g., ACS Comments at 2; ITTA Comments at 3; USTelecom Comments at 3 (supporting the use of a 6 Mbps/1.5 Mbps proxy for 4 Mbps/1 Mbps). As we decline to use a 6 Mbps/1.5 Mbps proxy, it is unnecessary for us to address comments in the record suggesting that if 6 Mbps/1.5 Mbps is used as the proxy, that carriers should or should not be required to provide service meeting a 6 Mbps/1.5 Mbps standard. See ACA Comments at 6 (arguing that if a 6 Mbps/1.5 Mbps standard is used, carriers should be required to provide 6 Mbps/1.5 Mbps to all locations); ADTRAN Comments at 6-7; but see USTelecom Comments at 4 (arguing that if the Commission adopts a 6 Mbps/1.5 Mbps proxy, it should not require carriers to provide speeds of 6 Mbps/1.5 Mbps to all locations); ACS Comments at 3; ITTA Comments at 4-5.

¹⁰⁶ See *Phase II Challenge Process Order*, 28 FCC Rcd at 7212-20, paras. 4-22.

¹⁰⁷ See *id.* at 7214, 7216, paras. 8, 11. A provider would only need to demonstrate that its prices are reasonably comparable in one of two circumstances: first, where a party challenges that a census block shown as served by the provider should be treated as unserved on the basis of price; or second, where the provider challenges the designation of a census block as unserved, claiming that it, in fact, serves the census block. Because of this presumption, most providers will not need to make an affirmative showing that their prices are reasonably comparable.

markets.¹⁰⁸ In such circumstances, the Commission's policy objective of ensuring consumers have access to reasonably comparable services at reasonably comparable rates should be achieved.¹⁰⁹

44. We also adopt a conclusive presumption that if a potential unsubsidized competitor is competing in a particular census block with the incumbent price cap carrier, and both are offering services that offer at least 4 Mbps downstream, and at least 1 Mbps upstream, and at least 100 GB of data, the pricing of the competitor will be deemed reasonable, and not subject to challenge. Given the finite \$1.8 billion budget for Phase II, we do not find it efficient to target funding to such areas that already have two providers offering service meeting the Phase II standards for price cap carriers, when there are likely to be other census blocks where the average cost exceeds the funding threshold that have no providers at all.

45. We now turn to situations where the potential competitor does not offer fixed wireline service in urban areas, or does not serve an area where the incumbent itself offers broadband. Once we adopt the urban rate benchmark, the pricing of such a potential competitor will not be subject to challenge if it is at or below the urban rate benchmark. Stated differently, there will be a conclusive presumption that the pricing of any operator with non-promotional rates below the urban rate benchmark is reasonable. In the event the challenge process is underway prior to the publication of the urban rate benchmark resulting from the urban rate survey, however, we will need a simple, administratively workable method of determining whether the price cap carrier has made a prima facie case regarding pricing that shifts the burden to the other provider to respond.¹¹⁰ In the *Phase II Service Obligations Public Notice*, the Bureau sought comment on whether to adopt on an interim basis reasonable comparability benchmarks of \$37 for voice service and \$60 for broadband service.¹¹¹ We now adopt such an approach on an interim basis, which will enable the Bureau to quickly and efficiently adjudicate challenges to the extent that process occurs before the adoption of the urban rate benchmark.¹¹²

46. In order to make a prima facie case to proceed with a challenge in situations where the conclusive presumptions discussed above do not apply, a price cap carrier seeking to overturn the

¹⁰⁸ See Letter from Steven F. Morris, National Cable & Telecommunications Association, to Marlene Dortch, Secretary, Federal Communications Commission, WC Docket No. 10-90 (filed Sept. 18, 2013); see also ITTA Comments at 7 ("if a portion of a broadband competitor's base is urban, there is no need for the Commission to set a level at which a provider's rate is too high to be considered reasonable. The competitiveness of the market will ensure that the provider's rate is reasonable."); USTelecom Comments at 8 (similar).

¹⁰⁹ The compared services must have substantially similar attributes. For instance, an unsubsidized competitor would not enjoy a conclusive presumption if, though it offers the same urban and rural rates, its rural package has relatively restrictive data usage allowances and low speeds, while its urban offering has no data usage allowance and higher speeds. Moreover, we only provide a conclusive presumption in situations where more than a de minimis number of customers in urban areas purchase the plan that serves as the point of comparison. A conclusive presumption would not be afforded if an unsubsidized competitor technically offers service in both urban and rural areas, but has few or no subscribers in the urban areas. Finally, consistent with the requirement established above for price cap carriers, the relevant comparison must be to fixed wireline offerings in urban areas. If the provider in question does not offer fixed wireline service in urban areas, a price cap carrier would need to make a prima facie case that the provider's rates exceed the interim benchmark we discuss below, and the other provider would then respond.

¹¹⁰ The Rural Associations have argued that we should wait for the urban rate survey to be completed before using pricing as a determinant of whether an area is served by an unsubsidized competitor. Reply of NTCA – The Rural Broadband Association et al., WC Docket No. 10-90, at 8 (filed Apr. 12, 2013). We note that the process we adopt herein only applies to the implementation of the Phase II challenge process for price cap carriers accepting model-based support.

¹¹¹ *Phase II Service Obligations Public Notice*, 28 FCC Rcd at 1521, paras. 17-18.

¹¹² WISPA supports such an approach. WISPA Comments at 7.

classification of a particular block as served based on a lack of reasonably comparable pricing would need to demonstrate that the provider's advertised non-promotional price for the lowest cost broadband service offering is above \$60 and/or the provider's advertised non-promotional price for the lowest cost voice service offering is above \$37.¹¹³ If the price cap carrier successfully makes such a showing, the burden then would shift to the other provider to submit evidence that its rates are in fact reasonably comparable. The provider can defeat the challenge by demonstrating either that: 1) it does in fact offer a qualifying broadband offering at a price at or below \$60 and a voice offering at or below \$37; 2) its rates nonetheless should be deemed reasonably comparable because it offers a more robust broadband service than the minimum requirements established for price cap carriers accepting Phase II support;¹¹⁴ or 3) its rates are the same as those of other providers in nearby urban markets where there are two or more providers offering fixed services meeting the Commission's standards.

47. We now address what showing is necessary when a provider is challenging the initial designation of a census block as unserved, arguing that instead the block should be treated as served by the provider. Prior to adoption of the urban rate benchmark, the provider may demonstrate that 1) it offers a qualifying broadband offering at a price at or below \$60 and a voice offering at or below \$37; 2) its rates nonetheless should be deemed reasonably comparable because it offers a more robust broadband service than the minimum requirements established for price cap carriers accepting Phase II support; 3) it offers service meeting or exceeding the specified performance requirements for the same or lower rates in rural areas as it does for fixed wireline offerings in urban areas; or 4) both it and the price cap carrier are serving that census block and therefore its rates should be presumed reasonably comparable. After the adoption of the urban rate benchmark, the provider may present evidence that its rates are lower than the benchmark. If it successfully makes any of these showings, and the price cap carrier fails to offer sufficient contrary evidence, the provider will be deemed to be offering reasonably comparable rates. In responding to an unserved-to-served challenge, price cap carriers may contest the factual assertions made by the provider.¹¹⁵

IV. PROCEDURAL MATTERS

A. Paperwork Reduction Act

48. This document contains new 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. OMB, the general public, and other Federal agencies are invited to comment on the new or modified information collection requirements contained in this proceeding. In addition, we note that pursuant to the Small Business Paperwork Relief Act of 2002,¹¹⁶ we previously sought specific comment on how the Commission might further reduce the information collection burden for small business concerns with fewer than 25 employees.

¹¹³ The broadband offering must meet all the performance metrics set forth in this Order. This section uses the term "price cap carrier" as the party opposing the provider's status as an unsubsidized competitor. This designation is used for the sake of clarity; however, any party may make such challenges.

¹¹⁴ While we decline to adopt a bright-line test at this time of how to compare the prices of services offering different levels of speed, the Bureau will consider the substantive merits of such arguments as part of the Phase II challenge process.

¹¹⁵ For example, the price cap carrier could challenge the veracity of the assertion that service is offered at a rate lower than the urban benchmark, by presenting evidence that this rate is not advertised on the provider's website, or that a potential customer was unable to obtain service at this rate.

¹¹⁶ Public Law 107-198; *see* 44 U.S.C. § 3506(c)(4).

49. In this present document, we have assessed the effects of requiring price cap carriers to report certain information related to their Phase II service obligations. As all price cap carriers employ more than 25 employees, these changes will have no impact on businesses with fewer than 25 employees. Some changes adopted in this Order affect how unsubsidized competitors report information related to the challenge process. Unsubsidized competitors may be businesses with fewer than 25 employees. However, the changes adopted herein fall under previous OMB approval for the Phase II challenge process.¹¹⁷

B. Final Regulatory Flexibility Certification

50. The Regulatory Flexibility Act of 1980, as amended (RFA)¹¹⁸ requires that a regulatory flexibility analysis be prepared for rulemaking proceedings, unless the agency certifies that “the rule will not have a significant economic impact on a substantial number of small entities.”¹¹⁹ The RFA generally defines “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”¹²⁰ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.¹²¹ 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 Small Business Administration (SBA).¹²²

51. The metrics and standards for determining compliance with the Commission’s service requirements contained in the “Price Cap Carrier Obligations” section of this Order do not have a significant economic impact on a substantial number of small entities. The requirements in that section only directly affect price cap carriers that ultimately elect to accept Phase II support through the state-level commitment. The vast majority of these affected carriers are not small businesses.¹²³ As separate and independent grounds, we also conclude that articulating objective quantitative metrics for demonstrating compliance with the standards adopted by the Commission creates only a de minimis economic impact.¹²⁴ The metrics and standards adopted in the “Unsubsidized Competitors” section of this Order could affect a substantial number of small entities, depending on how many such entities

¹¹⁷ See 78 Fed. Reg. 44893 (July 25, 2013).

¹¹⁸ The RFA, *see* 5 U.S.C. § 601 *et seq.*, has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

¹¹⁹ 5 U.S.C. § 605(b).

¹²⁰ 5 U.S.C. § 601(6).

¹²¹ 5 U.S.C. § 601(3) (incorporating by reference the definition of “small business concern” in Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

¹²² 15 U.S.C. § 632.

¹²³ An incumbent local exchange carrier is considered a small business if it has 1,500 or fewer employees and is not dominant in its field of operation. *See USF/ICC Transformation Order*, 26 FCC Rcd at 18335, para. 44-45. Only four carriers potentially fall under this definition. We conclude four is not a substantial number, either compared to the universe of price cap carriers (13 carriers) or all incumbent local exchange carriers (1,307 carriers).

¹²⁴ For example, the Commission had already determined that the latency for Phase II should be sufficient to allow the use of real-time applications, including VoIP. *See USF/ICC Transformation Order*, 26 FCC Rcd at 17721, 17729, paras. 147, 171. Articulating a numerical measure for how carriers should show that they are meeting the Commission’s standard (round trip latency of less than 115 ms) does not create a significant economic impact.

participate in the challenge process. However, in setting the proxy by which we will determine whether an unsubsidized competitor offers 4 Mbps/1 Mbps service and stating a how an unsubsidized competitor can make a showing that its rates are reasonably comparable, we create only a de minimis economic impact. Therefore, we certify that the requirements of this Order will not have a significant economic impact on a substantial number of small entities. The Commission will send a copy of the order including a copy of this final certification, in a report to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996, *see* 5 U.S.C. § 801(a)(1)(A). In addition, the order and this certification will be sent to the Chief Counsel for Advocacy of the Small Business Administration, and will be published in the Federal Register. *See* 5 U.S.C. § 605(b).

C. Congressional Review Act

52. The Commission will send a copy of this order to Congress and the Government Accountability Office pursuant to the Congressional Review Act.¹²⁵

V. ORDERING CLAUSE

53. Accordingly, IT IS ORDERED that, pursuant to sections 1, 4(i), 5(c), 201(b), 214, and 254 of the Communications Act of 1934, as amended, and section 706 of the Telecommunications Act of 1996, 47 U.S.C. §§ 151, 154(i), 155(c), 201(b), 214, 254, 1302, sections 0.91 and 0.291 of the Commission's rules, 47 C.F.R. §§ 0.91, 0.291, and the delegations of authority in paragraphs 112, 170, and 171 of the *USF/ICC Transformation Order*, FCC 11-161, this Report and Order IS ADOPTED, effective thirty (30) days after publication of the text or summary thereof in the *Federal Register*, except for the provisions subject to the PRA,¹²⁶ which will become effective upon announcement in the *Federal Register* of OMB approval of the subject information collection requirements.

FEDERAL COMMUNICATIONS COMMISSION

Julie A. Veach
Chief
Wireline Competition Bureau

¹²⁵ *See* 5 U.S.C. § 801(a)(1)(A).

¹²⁶ *See supra* paras. 48-49.