June 5, 2015

Ex Parte

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, D.C. 20554

Re: USTelecom Ex Parte Notice Connect America Fund, WC Docket No. 10-90

Dear Ms. Dortch:

On March 13, 2015, USTelecom staff and representatives from various companies met with Federal Communications Commission (Commission) staff to present alternative approaches developed by USTelecom for use by Connect America Fund Eligible Telecommunications Carriers (ETCs) to measure broadband performance.[1] During the course of these discussions, Commission staff also raised a series of questions to meeting attendees regarding other aspects of the CAF broadband measurement program. These inquiries related to the manner in which the measurement program is implemented, the number of testing locations for ETCs, and the proposed start date for measurement obligations to commence.

The Commission Should Ensure Flexibility for ETCs in Their Implementation of CAF Broadband Measurement Obligations.

In developing its proposed testing approaches for broadband measurement under the CAF, USTelecom ensured that they could be implemented through technologically neutral mechanisms that would apply to all CAF ETCs regardless of the platform over which they provide broadband service. The group presented these solutions as a suite of options, any one of which a CAF ETC could choose to utilize for certification purposes.

Determinations are best made by individual ETCs, given the broad range of factors they must assess. These factors can include the cost of individual solutions and their ease of implementation. These determinations may also vary by provider depending on the nature of their broadband platform (*e.g.*, wireless, DSL, etc.), the size and density of their respective service territories, as well as the individual needs of their customers.

In addition, ETCs should be able to transition from one measuring methodology (*e.g.*, White Boxes), to another methodology (*e.g.*, software based solutions in the router)

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[1] *See*, Letter from Kevin G. Rupy, Vice President, USTelecom, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 10-90 (March 18, 2015).

throughout the course of their CAF obligations as well as have flexibility to use more than one methodology at a time in different portions of network. Such an approach will ensure that ETCs can take advantage of more robust tools as they become available, thereby ensuring greater integrity in the CAF certification process. Moreover, to the extent certain tools are easier to implement for ETCs, such increased cost-efficiencies will enhance the effectiveness of the overall program.

The Commission Should Permit CAF Testing to ETC-Owned Servers

The Commission's 2011 *USF/ICC Transformation Order* requires recipients of funding to test their broadband networks for compliance with speed and latency metrics, and report and certify the results to the Universal Service Administrative Company (USAC) on an annual basis.[2] These results will be subject to audit, which will be based on ETCs submitting "verifiable test results to USAC and the relevant state commissions."[3] In addition, the Commission's guidelines stipulate that "actual speed and latency be measured on each ETC's access network from the end-user interface to the nearest Internet access point."[4]

USTelecom recommends that where companies acquire their own servers, they should be afforded the flexibility to use their own servers for such testing and validation. The Commission's framework contained in the *USF/ICC Transformation Order*, stipulates only that ETCs submit "verifiable" test results that are measured from the ETC's end-user interface to the nearest Internet access point. Such test results can be easily reported and verified, regardless of the entity that owns the Internet access point server.[5] Moreover, given that the Commission has proposed using USAC funds to pay for such servers,[6] the self-deployment of such testing servers by ETCs would represent a cost savings for the CAF program.

Such an approach will be particularly vital in implementing the Bureau's conclusion that "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."[7] None of the other alternatives yet

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[2] Report and Order and Further Notice of Proposed Rulemaking, *Connect America Fund*, 26 FCC Rcd. 17663, 76 FR 78384, 76 FR 76623, 77 FR 26987, ¶ 109 (released November 18, 2011).

[3] *Id.*, ¶110.

[4] *Id.*, ¶111.

[5] Under this framework, carriers would submit test result data, which the FCC could independently verify through testing.

[6] Public Notice, *Wireline Competition Bureau, Wireless Telecommunications Bureau, and the Office of Engineering and Technology Seek Comment on Proposed Methodology for Connect America High-Cost Universal Service Support Recipients to Measure And Report Speed and Latency Performance to Fixed Locations*, DA 14-1499, ¶ 22 (released October 16, 2014) (*CAF Measurement PN*).

[7] Report and Order, *Connect America Fund*, WC Docket No. 10-90, DA 13-2115, ¶35 (released October 31, 2013).

identified by the Commission appear to encompass broadband performance testing options using servers located outside the 48 contiguous United States.

The Commission Should Consider a Lower Number of Testing Locations in Certain Instances.

The Commission has proposed that broadband measurements by CAF ETCs must be conducted over a minimum of four 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.[8] Given the unique characteristics of the CAF service areas subject to such testing, and the disparity of network density for ETCs within certain states, USTelecom encourages the Commission to consider whether an alternative number of testing locations should be considered in certain circumstances.

In particular, there may be certain states in which a carrier has a relatively small number of CAF locations such that it would be unnecessary or difficult to test 50 customer locations (*e.g.*, states with only 1,000 or 2,000 locations).[9] Similarly, a carrier may have the obligation to build to a seemingly large number of CAF locations, but the actual number of subscribers, particularly in the early years, may suggest testing fewer than 50 locations is reasonable.

For these reasons, USTelecom believes that the number of required measurement points should be based both on the total number of a particular provider's CAF locations within a given state and subscribership levels, recognizing the latter could take several years to ramp up. In such circumstances, it may be reasonable, for example, to limit the minimum number of boxes to 5 or 10 per carrier per state and keep 50 as the ceiling in states where the carrier has larger numbers of CAF locations and/or subscribers. While the adjusted number of testing locations under such a scenario would still provide meaningful testing information to the Commission, it would also serve to defray unnecessary costs under the CAF program by limiting expenditures only to the number of boxes necessary for testing purposes. Given that such low density testing areas under the CAF may be numerous, these savings would be significant.

The Commission Should Afford Carriers Flexibility in the Placement of Testing Boxes at Suitable Locations.

Carriers should also be afforded the flexibility to place the individual testing boxes at customer locations they deem most suitable and appropriate for the testing process. For example, ETCs deploying White Boxes may be limited to deploying the devices to certain areas due to customer consent to such an installation. In contrast, ETCs deploying customer

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[8] *See*, *CAF Measurement PN*, ¶ 9.

[9] USTelecom notes the distinction between "CAF locations" and "customer locations." For example, while an ETC may have 1,000 CAF locations, that does not necessarily equate to 1,000 customer locations.

premises equipment (CPE) with the certification software already installed, may have greater flexibility in where to deploy such equipment. For example, it would arguably be easier for ETCs to deploy software enabled CPE to a consumer's home during the initial installation.

However, USTelecom maintains that where such deployment flexibility is afforded to ETCs, they would need to provide assurances to the Commission that their placement of testing boxes will indeed be random. These assurances will ensure that ETCs do not game the system by locating testing equipment only in certain pre-determined areas that may be more favorable for testing purposes. Such assurances could be accomplished through something as simple as a certification submitted to the Commission (and/or USAC) by the ETC in their Form 481 Report.

The Commission Should Commence Testing Obligations at the First CAF Milestone in 2017.

By the end of calendar year 2017, the Commission requires that ETCs complete construction to at least 40 percent of the requisite number of locations in a state by the end of calendar year 2017 offering speeds of at least 10/1 Mbps.[10] USTelecom proposes that the Commission commence ETC testing obligations after December 31, 2017, which would coincide with the first milestone.

As USTelecom noted during its earlier meeting with Commission staff, a broad range of industry stakeholders are currently working towards the development and deployment of software based broadband measurement solutions resident in the consumer's router. Not only would using the 2017 milestone help ensure that an adequate number of customer locations exist to test, but waiting until that time will afford industry the necessary additional time to develop and deploy such software based solutions. Based on industry momentum in this area, USTelecom believes that such solutions will be more widely deployed at the commencement of the 2017 milestone.

The broader availability of software based measurement solutions at that time will make their implementation by ETCs more attainable, given the ease with which such solutions can be deployed. Given the integrated nature of such devices (*i.e.*, that the measurement tool is resident in the router and does not require installing additional equipment in the consumer premises), they can be more widely and easily deployed throughout the network territory. This is particularly relevant given the concerns raised by various stakeholders in the proceeding regarding the challenges to deploying non-integrated equipment in consumer's homes.[11]

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[10] Report and Order, *Connect America Fund*, 29 FCC Rcd. 15644, 80 FR 4445, ¶ 36 (released December 18, 2014).

[11] *See e.g.*, Comments of USTelecom, WC Docket No. 10-90, pp. 6 – 8 (December 22, 2014) (noting the discrete geographic areas to be tested, and the limited pool of users).

Pursuant to Commission rules, please include this ex parte letter in the above-identified proceeding.

Sincerely,

Kevin G. Rupy
Vice President, Law & Policy

cc: Suzanne Yelen
Alec MacDonnell
Rodger A. Woock, Ph.D.
Chris Cook
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