

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

In the Matter of )  
 )  
Inquiry Concerning the Deployment of ) GN Docket No. 15-191  
Advanced Telecommunications Capability )  
to All Americans in a Reasonable and )  
Timely Fashion, and Possible Steps to )  
Accelerate Such Deployment Pursuant to )  
Section 706 of the Telecommunications )  
Act of 1996, as Amended by the )  
Broadband Data Improvement Act )

**COMMENTS  
of  
UNITED STATES CELLULAR CORPORATION**

Grant B. Spellmeyer  
Vice President – Federal Affairs and  
Public Policy

David A. LaFuria  
John Cimko

UNITED STATES CELLULAR CORPORATION  
660 Pennsylvania Avenue, S.E., # 201  
Washington, D.C. 20003  
(202) 290-0233

LUKAS, NACE, GUTIERREZ & SACHS, LLP  
8300 Greensboro Drive, Suite 1200  
McLean, Virginia 22102  
(703) 584-8678

September 15, 2015

## TABLE OF CONTENTS

SUMMARY .....	ii
I. INTRODUCTION .....	2
II. DISCUSSION .....	3
A. The Commission Should Define “Advanced Telecommunications Capability” To Include Both Fixed and Mobile Broadband.....	3
1. The Importance of Mobile Broadband. ....	4
2. There Will Be Sufficient Data To Assess Mobile Broadband Availability. ....	6
B. Including Mobile Broadband in Its Section 706 Analysis Will Give the Commission a Mandate To Promote Mobile Broadband Deployment Pursuant to Section 706. ....	6
1. Reboot the CAF Budget. ....	8
2. Open Up the CAF Phase II Auction. ....	9
3. Develop Universal Service Policies for the Mobility Fund That Encourage Competition. ....	11
C. The Commission Should Develop a Lower Mobile Broadband Speed Benchmark for Use in Its Section 706 Analysis. ....	14
III. CONCLUSION.....	17

## SUMMARY

U.S. Cellular welcomes this opportunity to address issues raised by the Commission in connection with its evaluation of progress being made to deploy broadband networks that bring advanced broadband services to all Americans, and to take any necessary actions pursuant to Section 706 of the Telecommunications Act of 1996 to promote the availability of broadband services throughout the country.

U.S. Cellular focuses its Comments on a central question raised by the Commission: whether the Commission should decide to include mobile broadband in its analysis and findings under Section 706. There are numerous reasons supporting such a decision, including the fact that mobile broadband has become increasingly important for consumers, and growing consumer demand supports the Commission's involvement in ensuring that mobile broadband is being deployed in a reasonable and timely manner throughout the country.

### **Promoting Mobile Broadband Deployment**

If the Commission includes mobile broadband in its Section 706 analysis, and reaches the likely determination that mobile broadband currently is not being deployed in a reasonable and timely manner, then the Commission will have a statutory mandate to take action to promote mobile broadband deployment.

The Commission should carry out this mandate by revisiting the Connect America Fund budget and redirecting additional funding for use in deploying mobile broadband services, by developing rules that ensure mobile broadband carriers are able to meaningfully participate in the Connect America Fund Phase II competitive bidding process, and by developing universal service policies for the Mobility Fund that benefit consumers in rural areas by promoting competition.

## **Developing a Lower Mobile Broadband Speed Benchmark**

The Commission, for purposes of Section 706, should use a mobile broadband speed benchmark that is lower than the benchmark for fixed broadband networks. Specifically, it would be reasonable and realistic for the Commission to apply a 10 Mbps/1 Mbps speed benchmark for mobile broadband, while continuing to apply a 25 Mbps/3 Mbps benchmark for fixed broadband services, in its Section 706 analysis. This approach would be consistent with the Commission's conclusion that higher download speeds currently are available on fixed terrestrial broadband networks.

U.S. Cellular stresses, however, that this 10 Mbps/1 Mbps speed benchmark for mobile broadband should serve only as an aspirational benchmark for purposes of the Commission's promoting investment in mobile broadband networks pursuant to its Section 706 mandate.

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

In the Matter of	)	
	)	
Inquiry Concerning the Deployment of	)	GN Docket No. 15-191
Advanced Telecommunications Capability	)	
to All Americans in a Reasonable and	)	
Timely Fashion, and Possible Steps to	)	
Accelerate Such Deployment Pursuant to	)	
Section 706 of the Telecommunications	)	
Act of 1996, as Amended by the	)	
Broadband Data Improvement Act	)	

**COMMENTS  
of  
UNITED STATES CELLULAR CORPORATION**

United States Cellular Corporation (“U.S. Cellular”), by counsel, hereby submits these Comments, in response to the Commission’s Eleventh Broadband Progress Notice of Inquiry in the above-captioned proceeding.<sup>1</sup>

---

<sup>1</sup> *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, GN Docket No. 15-191, Eleventh Broadband Progress Notice of Inquiry, FCC 15-101 (rel. Aug. 7, 2015) (“*Notice*”). The due date for comments was extended from September 8, 2015, to September 15, 2015. *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, GN Docket No. 15-191, Order, DA 15-923 (rel. Aug. 13, 2015).

## I. INTRODUCTION.

The Commission's analysis and findings under Section 706 of the Telecommunications Act of 1996 ("Section 706")<sup>2</sup> measure the progress being made to deploy advanced broadband networks across the country. The Commission in the last five years has made considerable efforts in promoting broadband deployment, principally by transforming its universal service program.<sup>3</sup>

Unfortunately, there has been a blind spot in the Commission's promotion efforts: Even in the face of extraordinary consumer demand for mobile broadband, the Commission in many respects has left mobile broadband behind. In revamping its Universal Service Fund ("USF") policies, for example, the Commission decided to phase out legacy support for mobile wireless services, and to propose a demonstrably inadequate Mobility Fund budget.

The Commission's budgetary decisions have impaired deployment of mobile broadband networks in rural America. As U.S. Cellular explains in these Comments, the Commission's obligations pursuant to Section 706 provide a pathway for the Commission to fashion and implement policies that will stimulate investment in rural mobile broadband networks.

---

<sup>2</sup> 47 U.S.C. § 1302. Section 706 of the Telecommunications Act of 1996, Pub. L. No. 104-104, § 706, 110 Stat. 56, 153 (1996), as amended by the Broadband Data Improvement Act, Pub. L. No. 110-385, 122 Stat. 4096 (2008), as codified in Title 47, Chapter 12, of the United States Code.

<sup>3</sup> *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, GN Docket No. 14-126, 2015 Broadband Progress Report and Notice of Inquiry on Immediate Action to Accelerate Deployment, 30 FCC Rcd 1375, 1378 (para. 5) (2015) (footnotes omitted) ("*2015 Broadband Progress Report*") (noting that the Commission has "made concerted efforts, particularly through the Connect America Fund, to shrink [the] gap" between broadband deployment in urban and rural areas). *See Connect America Fund et al.*, WC Docket No. 10-90 *et al.*, Report and Order and Further Notice of Proposed Rule-making, 26 FCC Rcd 17663 (2011) ("*CAF Order*"), *aff'd sub nom. In re FCC 11-161*, 703 F.3d 1015 (10th Cir. May 23, 2014).

Section 706 gives the Commission a mandate to ensure that broadband “is being deployed to *all Americans* in a reasonable and timely fashion.”<sup>4</sup> The Commission should include mobile broadband as part of its Section 706 analysis because there is strong evidence that mobile broadband is an increasingly important service, especially in rural areas. Moreover, the granular and hopefully reliable data the Commission will collect through its revised FCC Form 477 will likely demonstrate that, in rural communities, mobile broadband networks are *not* being deployed in a reasonable and timely manner.

Such a finding will give the Commission the opportunity—and the mandate—to revise its universal service program to make it more responsive to consumer demand and more effective in facilitating deployment of mobile broadband networks throughout rural America.

## **II. DISCUSSION.**

The Commission should include mobile broadband in its analysis and findings under Section 706. In the likely event that this inclusion of mobile broadband leads to a finding that mobile broadband networks are not being deployed in a reasonable and timely manner, especially in rural areas, the Commission should act aggressively to promote investment in mobile broadband. For purposes of its Section 706 analysis, the Commission should set a speed benchmark for mobile broadband that is lower than the benchmark for fixed broadband.

### **A. The Commission Should Define “Advanced Telecommunications Capability” To Include Both Fixed and Mobile Broadband.**

The Commission seeks comment on “whether advanced telecommunications capability should be defined to include capabilities of mobile broadband such as mobility[,]”<sup>5</sup> and also on

---

<sup>4</sup> 47 U.S.C. § 1302(b) (emphasis added); *2015 Broadband Progress Report*, 30 FCC Rcd at 1377 (para. 3).

<sup>5</sup> *Notice* at para. 8.

“whether advanced telecommunications capability should be deemed to be available in an area only when both fixed and mobile broadband meeting our benchmark standards are available.”<sup>6</sup>

U.S. Cellular supports defining “advanced telecommunications capability,” for purposes of the Commission’s analysis and findings under Section 706, to include both fixed and mobile broadband services.

### **1. The Importance of Mobile Broadband.**

As the Commission has explained, mobile broadband has become increasingly important as consumer use of smartphones and other portable devices has grown dramatically.<sup>7</sup> The growing popularity and widespread use of mobile broadband is illustrated by the fact that, of the 211,218,000 broadband connections at speeds over 3 Mbps in the United States, 133,043,000 (or 63 percent) are mobile wireless.<sup>8</sup>

CTIA recently reported that “[i]n 2010, the FCC’s growth rate projections predicted mobile data traffic of 562 petabytes (PBs) each month by 2014; the actual amount was 563 PBs per month. Looking ahead, projections predict that mobile data traffic by 2019 will be nearly six times the 2014 amount.”<sup>9</sup> Further, as Commissioner O’Rielly recently observed:

---

<sup>6</sup> *Id.*

<sup>7</sup> *2015 Broadband Progress Report*, 30 FCC Rcd at 1444 (para. 120) (footnotes omitted) (noting that “[a]s consumers depend more and more on smartphones and other portable devices, and many Americans rely on both a fixed service and a mobile service for broadband access, the day may be fast approaching when we would consider, ‘advanced telecommunications capability’ to be fully deployed only in areas where consumers have access to both mobile and fixed high-speed broadband in light of the distinct characteristics of these services”).

<sup>8</sup> FCC, Wireline Comp. Bur., Industry Analysis & Tech. Div., *Internet Access Services: Status as of December 31, 2013* (Oct. 2014), at 17 (Table 2).

<sup>9</sup> Thomas K. Sawanobori & Dr. Robert Roche, CTIA The Wireless Association®, *Mobile Data Demand: Growth Forecasts Met* (June 22, 2015), at 1 (footnote omitted) (emphasis in original), *accessed at* <http://www.ctia.org/docs/default-source/default-document-library/062115mobile-data-demands-white-paper.pdf>. See Andrew Berger, “Report: U.S. Smartphone Users Accessing 9.7 GB in Monthly Wireless Data Usage,” TELECOMPETITOR (Aug. 31, 2015), *accessed at* <http://www.telecompetitor.com/report-u-s->



[T]he real game changer going forward is expected to be the realization of the Internet of Things, the emergence of the Machine-to-Machine (M2M) age. Currently, M2M comprises approximately 13 percent of device connections, but estimates are that they will grow to almost 60 percent by 2019 and traffic from M2M will increase 49 fold in this timeframe. The stats regarding LTE-equipped connected vehicles are telling. One company had 2 million connected cars as of year-end 2014, but expects that this number will rise to 10 million by the end of 2017.<sup>10</sup>

Moreover, there is “considerable evidence that mobile broadband in fact is uniquely capable of providing benefits relating to public safety communications, telemedicine and other health-care related communications, agricultural operations, educational programs, and similar endeavors.”<sup>11</sup>

This rapid growth in consumers’ use of mobile broadband services makes a strong case for the Commission to include mobile broadband in its Section 706 analysis, since this growing consumer demand and dependence upon mobile broadband warrant Commission involvement in ensuring that mobile broadband is being deployed “in a reasonable and timely fashion.”<sup>12</sup>

---

smartphone-users-accessing-9-7-gb-in-monthly-wireless-data-usage/ (reporting that, during the first half of 2015, monthly wireless data usage for smartphone users in the U.S. averaged 9.7 GB, 17 percent of which was transmitted over cellular networks); ACG Research, *Forecast of Mobile Broadband Bandwidth Requirements* (2015), accessed at [http://acgcc.com/wp-content/uploads/2015/03/Forecast-of-Mobile-Broadband-Bandwidth-Requirements\\_ACG.pdf](http://acgcc.com/wp-content/uploads/2015/03/Forecast-of-Mobile-Broadband-Bandwidth-Requirements_ACG.pdf) (indicating that, “[t]hrough more than one-half of the U.S. population uses smartphones today, demand is expected to grow as many industries are incorporating smartphone interfaces into their product and service offerings. The penetration rate is projected to grow at five percent CAGR [compound annual growth rate] during the next five years.”). In addition, a recent report shows that, worldwide, there were 2.6 million smartphone subscriptions in 2014 (an increase of 44.4 percent over 2013), with a forecast of 6.1 million smartphone subscriptions by 2020. Ericsson Mobility Report, *On the Pulse of the Networked Society* (June 2015), at 2, accessed at <http://www.ericsson.com/res/docs/2015/ericsson-mobility-report-june-2015.pdf>. It also was recently reported that, “[g]lobally, the number of LTE network connections rose 141 percent year-over-year to reach nearly 755 million as of end-2Q [2015] ....” Andrew Berger, “LTE Growth Rate: 141% in One Year, Report Says,” TELECOMPETITOR (Sept. 9, 2015), accessed at <http://www.telecompetitor.com/lte-growth-rate-141-in-one-year-report-says/>.

<sup>10</sup> Remarks of Commissioner Michael O’Rielly, FCC, before the Rural Wireless Ass’n (Sept. 11, 2015) (“O’Rielly RWA Remarks”), at 1-2 (footnotes omitted).

<sup>11</sup> Rural Wireless Carriers Reply Comments, WC Docket No. 10-90 *et al.* (filed Sept. 9, 2014) (“Rural Wireless Carriers Reply”), at 51, cited in U.S. Cellular Reply Comments, GN Docket No. 14-126 (filed Sept. 19, 2014) (“U.S. Cellular Reply”), at 3 n.10.

<sup>12</sup> 47 U.S.C. § 1302(b).

**2. There Will Be Sufficient Data To Assess Mobile Broadband Availability.**

In prior years, practical considerations have affected the Commission’s assessment of whether to include mobile broadband in its Section 706 analysis. Specifically, “mobile data quality issues”<sup>13</sup> contributed to the Commission’s conclusion that it was “unable to incorporate mobile in [its] section 706(b) finding.”<sup>14</sup> Now, however, “the Commission anticipates that use of the revised FCC Form 477 ... broadband deployment data along with other sources ... will allow for more comprehensive consideration of mobile broadband service ....”<sup>15</sup>

The Commission explains in the *Notice* that it now has access to:

[d]ata sources [that] offer a rich set of information that will assist the Commission in considering appropriate performance benchmarks for mobile broadband service. With the inclusion of improved data concerning mobile services, the Commission will be in a position to consider whether consumers need access to both fixed and mobile broadband in order to have access to advanced telecommunications capability.<sup>16</sup>

If new data in FCC Form 477 filings is of sufficient quality, the Commission should now proceed with including mobile broadband in its Section 706 analysis and findings.

**B. Including Mobile Broadband in Its Section 706 Analysis Will Give the Commission a Mandate To Promote Mobile Broadband Deployment Pursuant to Section 706.**

It is important for the Commission to include mobile broadband in its Section 706 analysis in part because such inclusion is the first step in enabling it to make a finding concerning the current state of mobile broadband deployment across the country. In U.S. Cellular’s view, it is

---

<sup>13</sup> *2015 Broadband Progress Report*, 30 FCC Rcd at 1439 (para. 107).

<sup>14</sup> *Id.*

<sup>15</sup> *Notice* at para. 3.

<sup>16</sup> *Id.* at para. 7.

likely that data from FCC Form 477 and other sources will show that mobile broadband at 10/1 Mbps speeds is not being made available to some consumers in a reasonable and timely manner, and that this deficiency in providing access to mobile broadband is most pronounced in *rural* areas.<sup>17</sup>

If the Commission includes mobile broadband in its Section 706 analysis, and if it makes the likely finding pursuant to Section 706(b) that mobile broadband is not being deployed in a reasonable and timely manner, particularly in rural areas, then the Commission is charged by Section 706(b) with the obligation to “take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.”<sup>18</sup> The Commission’s acting to fulfill this mandate is particularly important in rural areas, where, for example, access to various health care applications that can reduce health care delivery costs and save lives is dependent on access to advanced mobile broadband networks.<sup>19</sup>

U.S. Cellular suggests that these immediate actions should focus principally on the Commission’s universal service program, and U.S. Cellular recommends that the Commission should

---

<sup>17</sup> U.S. Cellular has argued that “[t]he problem is that many rural regions do not have access to mobile broadband networks[,]” citing an Alcatel-Lucent study that:

identified glaring disparities in the availability of mobile broadband. In central cities, it estimates that mobile broadband is available to 78.5 percent of the population, with 72.8 percent availability in suburbs. In rural areas, however, it estimates that mobile broadband availability dips to 24.3 percent, and plummets to 4.2 percent in very rural areas.

U.S. Cellular Reply at 5-6 (citing John Dow, VP Wireless Business Development, Alcatel-Lucent, “LTE Business and Technical Strategies for Rural America,” 2014 Competitive Carriers Ass’n Annual Convention (Sept. 2014)).

<sup>18</sup> 47 U.S.C. § 1302(b).

<sup>19</sup> U.S. Cellular Reply at 4.

exercise its authority under Section 254 of the Communications Act of 1934 (“Act”)<sup>20</sup> to take the actions discussed in the following sections.

### **1. Reboot the CAF Budget.**

A finding that mobile broadband is not being deployed in a reasonable and timely manner should prompt the Commission to redirect Connect America Fund (“CAF”) support as a means of increasing the deployment of mobile broadband networks in rural areas. As U.S. Cellular explained in a pleading filed in last year’s broadband progress inquiry, “[t]he fact is that the Commission, in its transformation of the universal service program and mechanisms, has made policy choices that have significantly hindered the deployment of mobile broadband networks in rural areas.”<sup>21</sup>

The Commission has crafted a universal service budget that delivers \$3.8 billion in annual support to price cap and rate-of-return carriers, compared to \$500 million allocated to wireless competitive eligible telecommunications carriers (“ETCs”), and, notwithstanding this funding disparity, the Commission also has sought comment on whether the budget for Mobility Fund Phase II should be reduced.<sup>22</sup> This budgetary disparity appears inconsistent with the Commission’s own acknowledgement of “the increasing importance of mobile broadband services.”<sup>23</sup>

---

<sup>20</sup> 47 U.S.C. § 254.

<sup>21</sup> U.S. Cellular Reply at 7.

<sup>22</sup> *Id.* “Cutting the Mobility Fund Phase II budget would make it much more difficult for mobile broadband providers to expand their networks into areas that currently are unserved or underserved, and this increased difficulty would compromise the Commission’s commitment to ensure the availability of mobile broadband for all consumers.” Rural Wireless Carriers Reply at 19.

<sup>23</sup> *Notice* at para. 9. The Commission observes in the *Notice* that:

From August 2012 to September 2014, the smartphone share of mobile phones in the United States increased from 50 percent to 72 percent. In the same period, the smartphone share of new mobile phone purchases increased from 64 percent to 85 percent. This suggests that the number of Americans with mobile broadband is increasing and that the quantity of mobile data usage is increasing as well. Between 2010 and 2013 the average monthly data usage per subscriber with data capable units increased from 122 Mb to 849 Mb.

The Commission cannot fulfill its Section 706 mandate to accelerate mobile broadband deployment while at the same time phasing out legacy universal service support for wireless competitive ETCs and severely limiting the Mobility Fund budget. Instead, the Commission “should explore ways to bolster the level of [Mobility Fund] support to better ensure that consumers in rural areas are able to join other Americans in accessing the benefits of mobile broadband services.”<sup>24</sup> A more effectively apportioned USF budget—that reflects the increased importance of mobile broadband—would fuel efforts to ensure that mobile broadband networks are reasonably and timely deployed throughout rural America.<sup>25</sup>

## **2. Open Up the CAF Phase II Auction.**

If the Commission includes mobile broadband as part of its Section 706 analysis, and if it makes the likely finding that mobile broadband is not being deployed in a reasonable and timely manner, then the Commission should provide a realistic opportunity for mobile broadband providers to participate in the CAF Phase II competitive bidding process.<sup>26</sup>

---

*Id.* (footnotes omitted).

<sup>24</sup> Rural Wireless Carriers Comments, WC Docket No. 10-90 *et al.* (filed Aug. 8, 2014) (Rural Wireless Carriers Comments’), at 34.

<sup>25</sup> Another step the Commission should take to facilitate the deployment of broadband networks to serve rural communities is to grant a pending petition for declaratory ruling filed by U.S. Cellular, in which U.S. Cellular requests the Commission to make a determination “that awarding unclaimed Mobility Fund Phase I support, originally awarded in Auction 901, to next-in-line bidders is the best use of these funds ...” U.S. Cellular, Petition for Declaratory Ruling, WC Docket No. 10-90 *et al.* (filed Mar. 21, 2014), at 1. U.S. Cellular demonstrates in its petition that the Wireless Telecommunications Bureau and the Wireline Competition Bureau have delegated authority to award the defaulted funds to next-in-line bidders, and also explains that “defaulted amounts can and should be awarded to the next-in-line bidders who remain ready, willing, and able, to meet the goals of the program and expand the reach of mobile broadband into areas that remain unserved and which were eligible for funding under the rules of Auction 901.” *Id.* at 1-2 (footnote omitted).

<sup>26</sup> The Commission’s policies currently do “not explicitly prohibit the use of mobile ... technology in meeting [CAF] Phase II obligations, as long as it provide[s] performance comparable to terrestrial, fixed broadband.” *Connect America Fund et al.*, WC Docket Nos. 10-90 *et al.*, Report and Order, Declaratory Ruling,

Approximately \$175 million in annual funding will be available in the CAF Phase II auction,<sup>27</sup> providing the Commission with an opportunity to inject additional funding into investment for mobile broadband networks if it enables mobile broadband providers to compete for Phase II support. The Commission “anticipate[d] [four years ago] that mobile providers may also be eligible for support in CAF Phase II in areas where price cap carriers opt not to accept the state-level commitment, in addition to Mobility Fund Phase II support.”<sup>28</sup> Now it should act to provide a realistic opportunity for mobile broadband carriers to compete for this support.

As Commissioner O’Rielly recently explained in a speech to rural mobile wireless broadband providers, “the prime opportunity that I think you should consider and where the Commission needs your help are those areas not selected by the incumbent price cap carriers in CAF Phase II.”<sup>29</sup> Commissioner O’Rielly noted that more than \$1.7 billion would be available for Phase II

---

Order, Memorandum Opinion and Order, Seventh Order on Reconsideration, and Further Notice of Proposed Rulemaking, 29 FCC Rcd 7051, 7105 (para. 153) (2014). Several parties, including U.S. Cellular, have argued, however, that the Commission should adapt the CAF Phase II public interest requirements in ways that take into account the technological characteristics of mobile broadband networks, and that facilitate an opportunity for mobile broadband service providers to compete for auction-based CAF Phase II funding. *See, e.g., id.* at 7106 (para. 154 n.339) (“seek[ing] comment on how to account for the interplay between higher [CAF Phase II] speed requirements, the use of mobile technology, and the availability of spectrum” for mobile broadband networks).

<sup>27</sup> AT&T declined \$66.3 million in annual support, CenturyLink declined \$8.6 million, Fairpoint declined \$0.8 million, Verizon declined \$95.4 million, and Windstream declined \$3.9 million, for a total of approximately \$175 million in annual support. *See* Joan Engebretson, “Upcoming CAF Reverse Auction Puts Markets in 20 States Up for Grabs for Broadband Funding,” TELECOMPETITOR (Sept. 1, 2015), *accessed at* <http://www.telecompetitor.com/upcoming-caf-reverse-auctions-puts-markets-in-20-states-up-for-grabs-for-broadband-funding/> (reporting that about 10 percent of the total amount of CAF Phase II funding was unclaimed by price cap carriers). Nearly nine times that annual amount—more than \$1.5 billion—has been reserved for, and accepted by, price cap carriers that exercised their right of first refusal pursuant to the *CAF Order*. *See* FCC News, “Carriers Accept Over \$1.5 Billion in Annual Support from Connect America Fund to Expand and Support Broadband for Nearly 7.3 Million Rural Consumers in 45 States and One Territory” (Aug. 27, 2015).

<sup>28</sup> *CAF Order*, 26 FCC Rcd at 17825 (para. 495).

<sup>29</sup> O’Rielly RWA Remarks at 5.

auction-based funding over a 10-year period, and concluded that, “wireless broadband may make the most technological sense given the terrain and costs to provider service” in rural areas.<sup>30</sup>

Opening up the CAF Phase II competitive bidding process to mobile wireless broadband providers “would ... benefit consumers in rural areas by increasing the prospect that they will have access to advanced mobile broadband services (assuming that wireless competitive ETCs also continue to have access to Mobility Fund Phase II support funded at least at current levels).”<sup>31</sup> Providing mobile broadband providers with a realistic opportunity to take part in the Phase II auction would also increase the competitiveness of the auction, and would be one means of helping to alleviate the universal service funding disparities between wireline and mobile broadband technologies.<sup>32</sup>

### **3. Develop Universal Service Policies for the Mobility Fund That Encourage Competition.**

During his tenure, Chairman Wheeler has repeatedly extolled the virtues of competition as a means of increasing consumer benefit and reducing regulatory burdens on carriers. One year ago at a speech from the headquarters of 1776, Chairman Wheeler set forth a bar graph demonstrating that as wired speeds increase, fewer Americans have a choice of service provider.<sup>33</sup> At the highest tier, 50 Mbps downstream/3 Mbps upstream, 82 percent of American have access to one provider,<sup>34</sup> with Google providing much of the impetus for investment in 100 Mbps+ networks in a

---

<sup>30</sup> *Id.*

<sup>31</sup> Rural Wireless Carriers Comments at 38-39.

<sup>32</sup> *Id.*

<sup>33</sup> Prepared Remarks of FCC Chairman Tom Wheeler, “The Facts and Future of Broadband Competition,” 1776 Headquarters, Washington, D.C. (Sept. 4, 2014) (“1776 Speech”).

<sup>34</sup> *Id.* at 2.

number of urban areas.<sup>35</sup> Setting a challenge for the Commission, Chairman Wheeler laid out specific steps the Commission must take to increase consumer choices for broadband and to close the digital divide in rural areas. While the speech was focused on increasing investment in fixed broadband (fiber), the principles set forth therein are equally applicable to mobile broadband.

**“[L]et’s remember that no company should be held immune from the competition that drives such investment.”**<sup>36</sup> That statement by Chairman Wheeler applies equally to fixed and mobile technologies. It should be anathema to policy makers that regulation should protect any class of company from competition. Yet, the revisions to the universal service mechanism made by the Commission in 2011 in the *CAF Order* have served to limit competition in rural areas, reducing investment by companies such as U.S. Cellular.

For example, the Commission awarded a “right of first refusal” to incumbent wireline carriers, blocking competitors from accessing universal service funding.<sup>37</sup> Support to incumbents is calculated on the cost of providing wireline service, however, the carriers are permitted to use wireless technology to meet their obligations. They are receiving an exclusive subsidy, unavailable to their competitors, and they are building wireless networks based on the cost of constructing wireline facilities.<sup>38</sup> These policies discourage competitive carriers from investing in areas where

---

<sup>35</sup> *Id.* at 4.

<sup>36</sup> *Id.* at 5 (emphasis added).

<sup>37</sup> See *CAF Order*, 26 FCC Rcd at 17727 (para. 166).

<sup>38</sup> See, e.g., Letter from James W. Cicconi, AT&T, to Marlene H. Dortch, FCC (Aug. 27, 2015), accessed at <http://apps.fcc.gov/ecfs/document/view?id=60001123481> (accepting CAF Phase II funding on behalf of AT&T and committing to meet AT&T’s obligations “through a mix of network technologies, including through the deployment of advanced wireless technologies on new wireless towers that will be constructed in previously unserved areas”).



our Nation’s dominant price cap carriers are receiving an exclusive subsidy that has potential wind-falls built in. Funds are paid out even when consumers do not take the service.

“**[W]here competition cannot be expected to exist, we must shoulder the responsibility of promoting the development of broadband.**”<sup>39</sup> Many rural areas are served by zero, one, or two providers, despite the Commission’s awarding many wireless licenses throughout the Nation. These areas lack competition because there is not an economic case to build **high-quality** networks that provide service throughout the areas where people live, work, and travel. Moreover, even in the age of 4G, CDMA-based handsets do not work on GSM-based networks, and *vice versa* (that is, a consumer with a CDMA-based device cannot place calls on GSM networks). Yet, the Commission’s policy in Mobility Fund Phase I has been to restrict subsidies to a single carrier in a market, effectively driving competition out and relegating consumers to a single choice.

U.S. Cellular urges the Commission to rethink its policies as it develops Mobility Fund Phase II. A government sanctioned and subsidized monopoly carrier that discourages competitive entry and must be heavily regulated denies rural consumers the benefit of having reasonably comparable facilities, as Congress set forth in Section 254 of the Act. Many areas already have some competition, but existing carriers have no ability to invest additional funds to make networks comparable to those common today in urban areas.

U.S. Cellular also urges the Commission to use the Section 706 proceeding to re-examine how the National Broadband Map measures wireless coverage, and to examine new FCC Form 477 submissions to develop new policies for ensuring, first and foremost, coverage in rural areas.<sup>40</sup>

---

<sup>39</sup> *1776 Speech* at 6 (emphasis added).

<sup>40</sup> For example, at a recent Senate hearing, Senator Dean Heller described, first-hand, the digital divide in Nevada, as he experienced two hours of driving without a cell phone signal. He stated that deploying additional spectrum is fine, but the problem first and foremost is one of access. U.S. Senate, Comm. on

Without access to a nearby tower that provides high-quality signal, modern 3G, 4G, and soon to be deployed 5G devices are of no use for health care monitoring, agricultural applications, public safety, education, and economic development.

Finally, U.S. Cellular urges the Commission to create market-based universal service mechanisms as a way to solve the problem of access to facilities, and to bring choices to consumers. A universal service program that provides competition in the auction room but a monopoly on the ground will not solve the digital divide.

**C. The Commission Should Develop a Lower Mobile Broadband Speed Benchmark for Use in Its Section 706 Analysis.**

The Commission asks whether, if it determines that consumers require access to both fixed broadband and mobile broadband in order for the Commission to make a finding that consumers have access to advanced telecommunications capability, it should develop a lower speed benchmark for mobile broadband service.<sup>41</sup>

In U.S. Cellular's view, a speed benchmark for mobile broadband that is lower than the 25 Mbps/3 Mbps benchmark applied to fixed terrestrial services for purposes of Section 706 makes

---

Commerce, Science & Trans., "Wireless Broadband and the Future of Spectrum Policy" (July 29, 2015), accessed at [http://www.commerce.senate.gov/public/index.cfm?p=Hearings&ContentRecord\\_id=57a2f3e1-d86f-4f1a-bb33-36502d4002ce&ContentType\\_id=14f995b9-dfa5-407a-9d35-56cc7152a7ed&Group\\_id=b06c39af-e033-4cba-9221-de668ca1978a](http://www.commerce.senate.gov/public/index.cfm?p=Hearings&ContentRecord_id=57a2f3e1-d86f-4f1a-bb33-36502d4002ce&ContentType_id=14f995b9-dfa5-407a-9d35-56cc7152a7ed&Group_id=b06c39af-e033-4cba-9221-de668ca1978a); see <http://www.heller.senate.gov/public/index.cfm/videos?MonthDisplay=7&YearDisplay=2015>.

<sup>41</sup> Notice at para. 22 (stating that the Commission "propose[s] to retain the newly adopted speed benchmark for fixed terrestrial broadband service [the 25 Mbps/3 Mbps benchmark applied to fixed terrestrial services in the 2015 Broadband Progress Report] and we seek comment on ... the development of a lower speed benchmark for mobile service in the event that the Commission finds that consumers require access to both fixed and mobile broadband in order to have access to advanced telecommunications capability").

sense. It would be reasonable, and realistic, to apply an aspirational 10 Mbps/1 Mbps speed benchmark for mobile broadband,<sup>42</sup> while continuing to apply the 25 Mbps/3 Mbps benchmark for fixed broadband services in the Commission’s Section 706 analysis. Such an approach would be consistent with the Commission’s conclusion that “higher download speeds currently [are] available on fixed terrestrial broadband . . . .”<sup>43</sup>

U.S. Cellular emphasizes, however, that adopting an aspirational 10 Mbps/1 Mbps speed benchmark for mobile broadband for purposes of the Commission’s Section 706 analysis and findings would not—and should not—have the effect of requiring mobile broadband ETCs to meet the same 10 Mbps/1 Mbps benchmark as a performance obligation in connection with their receipt of any universal service support. As the Commission has explained, “Section 706 is focused exclusively on the availability of *advanced* services. . . . [T]he concept of advanced services indicates that the Commission should focus on services that are progressive or ahead in development.”<sup>44</sup>

The Commission also has indicated that, while Section 706 focuses on advanced services, Section 254 of the Act, which codifies the Commission’s universal service mandate, “is broader: it requires the Commission to work toward making both basic and advanced services available, while providing flexibility in how that objective is achieved.”<sup>45</sup> By setting an aspirational 10 Mbps/1 Mbps speed benchmark for mobile broadband for purposes of Section 706, the Commission will be “working to provide access to advanced services”<sup>46</sup> by promoting investment in mobile

---

<sup>42</sup> *See id.* at para. 30 (asking whether a benchmark of 10 Mbps/1 Mbps would be appropriate for mobile broadband for purposes of the Commission’s Section 706 analysis and findings).

<sup>43</sup> *Id.* at para. 10.

<sup>44</sup> *2015 Broadband Progress Report*, 30 FCC Rcd at 1407 (para. 54) (emphasis in original).

<sup>45</sup> *Id.*

<sup>46</sup> *Id.*

broadband networks, especially in rural areas. At the same time, by setting a lower speed benchmark for mobile broadband providers receiving USF support, the Commission will “establish a framework to ensure a basic level of service to be available for all Americans . . . .”<sup>47</sup>

In the context of a Section 706 finding, using a 10 Mbps/1 Mbps speed benchmark for mobile broadband—which also is the new minimum speed adopted by the Commission in the *December 2014 CAF Order* for fixed broadband<sup>48</sup>—will likely result in a Commission finding that mobile broadband is not being deployed in a reasonable and timely manner in rural areas. While some current data suggests that mobile broadband networks delivering 10 Mbps/768 kbps speeds are widely available in rural areas,<sup>49</sup> the Commission has emphasized that:

While we present these data [collected by SBI and Mosaik] because they are the best available, we continue to have concerns that our mobile deployment estimates based on speed and technology may overstate actual deployment. The SBI Data and Mosaik Data on mobile deployment, while useful for measuring developments in mobile broadband deployment, have certain limitations that likely overstate the extent of deployment of 4G and LTE mobile broadband services and deployment of 10 Mbps/768 kbps speeds or higher.<sup>50</sup>

---

<sup>47</sup> *Id.*

<sup>48</sup> *Connect America Fund et al.*, WC Docket Nos. 10-90 *et al.*, Report and Order, 29 FCC Rcd 15644, 15645 (para. 2) (2014) (“*December 2014 CAF Order*”) (stating that “[w]e find that it is in the public interest to require recipients of high-cost support subject to broadband performance obligations to serve fixed locations to provide at least a minimum broadband speed of 10 Mbps downstream”). The Commission explained that:

[B]y increasing the current broadband downstream speed benchmark, we are primarily focusing on the minimum standard for *new* deployments of broadband-capable infrastructure. Consistent with the approach the Commission adopted for the previous speed benchmark, high-cost support recipients will be expected to achieve the new standard over a period of years, as they utilize that support to extend and upgrade networks in high-cost areas that are otherwise uneconomic to serve.

*Id.* at 15651 (para. 20) (footnote omitted) (emphasis in original).

<sup>49</sup> See *2015 Broadband Progress Report*, 30 FCC Rcd at 1442 (para. 113, Table 15) (citing data collected by the State Broadband Initiative (“SBI”) Grant Program, administered by the National Telecommunications and Information Administration, and by Mosaik Solutions (“Mosaik”).

<sup>50</sup> *Id.* at 1414-15 (para. 74) (footnote omitted).

Assuming the data filed by carriers using revised FCC Form 477 is accurate, the Commission’s Section 706 analysis will no longer be encumbered by the unreliability of the SBI and Mosaik data regarding mobile broadband deployment in rural areas, because, as U.S. Cellular has noted,<sup>51</sup> the revised FCC Form 477 will provide a “rich set of information”<sup>52</sup> concerning mobile broadband deployment in rural areas. In U.S. Cellular’s view, this data will confirm that mobile broadband at 10/1 Mbps speeds is not being deployed in rural America in a reasonable and timely manner.

**III. CONCLUSION.**

U.S. Cellular respectfully suggests that the Commission should include mobile broadband in the definition of advanced telecommunications capability for purposes of its analysis and findings pursuant to Section 706. Such a decision will reflect the growing importance of mobile broadband, it can be based on more accurate data than has been available to the Commission in prior

*[Remainder of page intentionally left blank]*

//

//

//

//

//

//

//

//

//

---

<sup>51</sup> See Section II.A.2., *supra*.

<sup>52</sup> *Notice* at para. 7.

years, and it will likely lead to a finding that mobile broadband currently is not being deployed in a reasonable and timely manner, giving the Commission a mandate to reinvigorate its efforts to promote mobile broadband deployment in rural America.

Respectfully submitted,

UNITED STATES CELLULAR CORPORATION

By:  \_\_\_\_\_

David A. LaFuria  
John Cimko

LUKAS, NACE, GUTIERREZ & SACHS, LLP  
8300 Greensboro Drive, Suite 1200  
McLean, Virginia 22102  
(703) 584-8678

Grant B. Spellmeyer  
Vice President – Federal Affairs and  
Public Policy

UNITED STATES CELLULAR CORPORATION  
660 Pennsylvania Avenue, S.E., # 201  
Washington, D.C. 20003  
(202) 290-0233

September 15, 2015