

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

In the Matter of )  
 )  
Inquiry Concerning the Deployment of Advanced ) GN Docket No. 11-121  
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 )

**EIGHTH BROADBAND PROGRESS NOTICE OF INQUIRY**

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By the Commission: Chairman Genachowski and Commissioner McDowell issuing separate statements.

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## I. INTRODUCTION

1. This Notice of Inquiry (*Inquiry*) seeks input on our annual broadband progress report. Section 706 of the Telecommunications Act of 1996, as amended,<sup>1</sup> requires the Commission annually to “initiate a notice of inquiry concerning the availability of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms).”<sup>2</sup> In conducting this *Inquiry*, the Commission must “determine whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.”<sup>3</sup>

2. In the last two broadband progress reports, the Commission found that broadband was not being deployed to all Americans in a reasonable and timely fashion.<sup>4</sup> Most recently, in the *2011 Seventh Broadband Progress Report*, the Commission found that as many as 26 million Americans live in areas unserved by broadband.<sup>5</sup> The Commission further observed that “[m]any of these Americans live in areas where there is no business case to offer broadband, and where existing public efforts to extend broadband are unlikely to reach; they have no immediate prospect of being served, despite the growing costs of

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<sup>1</sup> Section 706 of the Telecommunications Act of 1996, Pub. L. No. 104-104, § 706, 110 Stat. 56, 153 (the Telecommunications Act), as amended in relevant part by the Broadband Data Improvement Act (BDIA), Pub. L. No. 110-385, 122 Stat. 4096 (2008), is now codified in Title 47, Chapter 12 of the United States Code. See 47 U.S.C. § 1301 et seq. We now refer to the reports required under section 706 of the Telecommunications Act as “broadband progress reports.”

<sup>2</sup> 47 U.S.C. § 1302(b).

<sup>3</sup> *Id.* Section 706 also requires the Commission to provide “[d]emographic information for unserved areas.” *Id.* § 1302(c) (requiring the Commission, in part, to “compile a list of geographical areas that are not served by any provider of advanced telecommunications capability”). The Commission must complete an international comparison of broadband service capability. *Id.* § 1303(b). The Commission also must conduct a consumer survey to evaluate “the national characteristics of the use of broadband” and make the results of the survey public at least once per year, though not necessarily in the annual broadband progress reports. *Id.* § 1303(c).

<sup>4</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. 10-159, Seventh Broadband Progress Report and Order on Reconsideration, 26 FCC Rcd 8008, 8009, para. 1 (2011) (*2011 Seventh Broadband Progress Report*); *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; A National Broadband Plan for Our Future*, GN Docket Nos. 09-137, 09-51, Sixth Broadband Progress Report, 25 FCC Rcd 9556, 9558, para. 2 (2010) (*2010 Sixth Broadband Progress Report*).

<sup>5</sup> *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8009, para. 1; see also *2010 Sixth Broadband Progress Report*, 25 FCC Rcd at 9557–58, para. 1 (finding that approximately 14 to 24 million Americans still lacked access to broadband and would “not gain such access in the near future absent changes in policy”). In addition, Chairman Genachowski’s recent *Rural Broadband Update* indicated that “broadband deployment and adoption gaps in rural areas remain significant,” and that “72.5 percent of the 26.2 million Americans that still lack access to 3 [megabits per second (Mbps)]/768 [kilobits per second (kbps)] or faster fixed broadband services reside in rural areas, even though only 21.7 percent of all Americans reside in rural areas.” CHMN. JULIUS GENACHOWSKI, FCC, *BRINGING BROADBAND TO RURAL AMERICA: UPDATE TO REPORT ON A RURAL BROADBAND STRATEGY* 7 (2011) (*RURAL BROADBAND UPDATE*), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-307877A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-307877A1.pdf), attached to *Chairman Genachowski Releases Update to 2009 Rural Broadband Report*, GN Docket No. 11-16, Public Notice, DA 11-1095 (rel. June 22, 2011).

digital exclusion.”<sup>6</sup> The Commission found that our assessment of the availability of broadband is broader than just physical deployment of broadband networks, and thus should also include an assessment of other factors such as broadband cost, quality, and adoption by consumers.<sup>7</sup> As such, the Commission found that notwithstanding the substantial benefits of broadband, home broadband adoption remains low, citing barriers such as lack of affordability, lack of digital literacy, and a perception by respondents that the Internet is not relevant or useful to them.<sup>8</sup>

3. In light of our determination that broadband deployment in the United States is not reasonable and timely, as required by section 706, the Commission has taken numerous actions to accelerate broadband deployment.<sup>9</sup> For example, the Commission adopted the *Open Internet Order*.<sup>10</sup> The Commission also launched the Broadband Acceleration Initiative, through which the Commission, with its partners in state and local governments, is finding ways to reduce obstacles to broadband deployment, such as barriers to accessing utility poles and rights of way and to collocating and siting wireless facilities.<sup>11</sup> As part of the Broadband Acceleration Initiative, the Commission released an order comprehensively reforming our rules regarding access, rates, and resolution of disputes regarding utility pole attachments, thereby reducing barriers to deployment and promoting competition.<sup>12</sup> The Commission also has required facilities-based providers of commercial mobile data services to offer data roaming arrangements to other such providers.<sup>13</sup>

4. We also have several open proceedings that upon completion will further encourage and accelerate broadband deployment. The Commission, for example, has proposed reforms to modernize the federal universal service fund program and intercarrier compensation system to make broadband more widely available and affordable in high-cost service areas.<sup>14</sup> To address the lack of communications

<sup>6</sup> See *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8009, para. 1 (citing OMNIBUS BROADBAND INITIATIVE (OBI), FCC, CONNECTING AMERICA: THE NATIONAL BROADBAND PLAN, GN Docket No. 09-51 at 3–5, 129 (2010) (NATIONAL BROADBAND PLAN)).

<sup>7</sup> *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8020–21, paras. 18–20.

<sup>8</sup> *Id.* at 8010, para. 2; *see also id.* at 8037–38, para. 58 (stating “[t]he most recent Form 477 Data shows that only 64 percent of American households have a connection advertised as being capable of delivering over 200 kbps in at least one direction, with only 33 percent having a connection advertised as being capable of delivering 3Mbps/768 kbps—the speed we believe represents the best proxy for our broadband benchmark of 4 Mbps/1 Mbps.”).

<sup>9</sup> See 47 U.S.C. § 1302(b); *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8012–13, 8040–45, paras. 6–7, 64–76.

<sup>10</sup> See generally *Open Internet Order*, 25 FCC Rcd 17905 (2010).

<sup>11</sup> The FCC’s Broadband Acceleration Initiative Reducing Regulatory Barriers to Spur Broadband Buildout, Public Notice (rel. Feb. 9, 2011), available at [http://www.fcc.gov/Daily\\_Releases/Daily\\_Business/2011/db0209/DOC-304571A2.pdf](http://www.fcc.gov/Daily_Releases/Daily_Business/2011/db0209/DOC-304571A2.pdf); Acceleration of Broadband Deployment: Expanding the Reach and Reducing the Cost of Broadband Deployment by Improving Policies Regarding Public Rights of Way and Wireless Facilities Siting, WC Docket No. 11-59, Notice of Inquiry, 26 FCC Rcd 5384 (2011).

<sup>12</sup> See *Implementation of Section 224 of the Act, A National Broadband Plan for Our Future*, WC Docket No. 07-245, GN Docket No. 09-51, Report and Order and Order on Reconsideration, 26 FCC Rcd 5240 (2011).

<sup>13</sup> *Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Services*, WT Docket No. 05-265, Second Report and Order, 26 FCC Rcd 5411 (2011).

<sup>14</sup> *Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing an Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up*, CC Docket Nos. 96-45, 01-92, GN (continued....)

services on Tribal lands, the Commission adopted a Notice of Proposed Rulemaking (NPRM) promoting greater utilization of spectrum over Tribal lands, and a Notice of Inquiry (NOI) addressing a range of issues related to broadband deployment challenges in Native Nations.<sup>15</sup> In addition, the Commission is continuing to make more spectrum available for wireless broadband services.<sup>16</sup>

5. With this *Inquiry*, we launch our next assessment of the availability of advanced telecommunications capability in America. We encourage individual consumers, consumer advocates, analysts, companies, policy institutes, governmental entities, and others to provide objective, empirical data and evidence to help us complete this task. We seek comment in particular on the questions set forth below. We also encourage commenters to bring new issues concerning broadband to our attention and recommend new ways to measure and evaluate broadband deployment and availability. The information gathered in this proceeding will help ensure that the Commission's broadband policies are well informed and data driven as we strive to reach our goal of universal broadband availability.

## II. ISSUES FOR INQUIRY

### A. What Is Advanced Telecommunications Capability?

6. We seek comment on an appropriate benchmark for "advanced telecommunications capability" for purposes of our *Eighth Broadband Progress Report*. Section 706 defines advanced telecommunications capability as "high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology."<sup>17</sup> In the past, the Commission has found that only broadband of a certain speed could satisfy the statute's definition of advanced telecommunications capability and established a minimum broadband speed threshold.<sup>18</sup> In the *2010 Sixth Broadband Progress Report*, the Commission

(Continued from previous page) \_\_\_\_\_

Docket No. 09-51, WC Docket Nos. 03-109, 05-337, 07-135, 10-90, Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, 26 FCC Rcd 4554 (2011) (*Connect America Fund NPRM*).

<sup>15</sup> *Improving Communications Services for Native Nations by Promoting Greater Utilization of Spectrum over Tribal Lands*, WT Docket No. 11-40, Notice of Proposed Rulemaking, 26 FCC Rcd 2623 (2011); *Improving Communications Services for Native Nations*, CG Docket No. 11-41, Notice of Inquiry, 26 FCC Rcd 2672 (2011) (*Native Nations NOI*).

<sup>16</sup> See *Innovation in the Broadcast Television Bands: Allocations, Channel Sharing and Improvements to VHF*, ET Docket No. 10-235, Notice of Proposed Rulemaking, 25 FCC Rcd 16498 (2010); see also *Unlicensed Operation in the TV Broadcast Bands; Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band*, ET Docket Nos. 04-186, 02-380, Second Memorandum Opinion and Order, 25 FCC Rcd 18661 (2010); *Fixed and Mobile Services in the Mobile Satellite Service Bands at 1525–1559 MHz and 1626.5–1660.5 MHz, 1610–1626.5 MHz and 2483.5–2500 MHz, and 2000–2020 MHz and 2180–2200 MHz*, ET Docket No. 10-142, Report and Order, 26 FCC Rcd 5710 (2011); *Amendment of Part 27 of the Commission's Rules to Govern the Operation of Wireless Communications Services in the 2.3 GHz Band, Establishment of Rules and Policies for the Digital Audio Radio Satellite Service in the 2310–2360 MHz Frequency Band*, WT Docket No. 07-293, IB Docket No. 95-91, GN Docket No. 90-357, RM-8610, Report and Order, 25 FCC Rcd 11710 (2010) (the Commission, in May 2010, removed technical impediments to mobile broadband in the Wireless Communications Service at 2.3 GHz, freeing up 25 MHz of spectrum).

<sup>17</sup> 47 U.S.C. § 1302(d)(1).

<sup>18</sup> See, e.g., *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8014, 8018–20, paras. 10, 14–16; *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*, CC Docket No. 98-146, Report, 14 FCC Rcd 2398, 2406, para. 20 (1999) (*First Broadband Progress Report*).

updated that benchmark to better reflect the marketplace evolution in technology, applications, and services available to consumers.<sup>19</sup> The Commission raised the threshold from services in excess of 200 kbps in both directions—a standard adopted more than a decade ago in the *1999 First Broadband Progress Report*<sup>20</sup> in the context of a nascent market—to services that enable actual download speeds of at least 4 Mbps and upload speeds of at least 1 Mbps (4 Mbps/1 Mbps) over the broadband provider’s network.<sup>21</sup> The *2011 Seventh Broadband Progress Report* relied on the same benchmark as the *2010 Sixth Broadband Progress Report*.<sup>22</sup>

7. Have technology, consumer demand, or other factors changed sufficiently to warrant revising this threshold in the *Eighth Broadband Progress Report*?<sup>23</sup> In particular, would the benefits of potential revisions to the threshold outweigh the benefits of having “a relatively static point at which to gauge the progress and growth in the [broadband] market from one Report to the next”?<sup>24</sup> If so, how should the benchmark be adjusted? For example, should the Commission revise the existing benchmark to upload and download speeds that match the available data, such as 3 Mbps/768 kbps or 6 Mbps/1.5 Mbps?<sup>25</sup> Should the Commission adopt an additional, higher benchmark to begin tracking progress toward long-term national broadband goals?<sup>26</sup> The Commission thus far has declined to adopt technology-specific speed thresholds, in part because section 706 directs the Commission to assess deployment and availability of a “capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications *using any technology*.<sup>27</sup> We seek comment on that conclusion. Are there any other issues we should consider in setting a speed benchmark and otherwise in defining advanced telecommunications capability in the next report?<sup>28</sup>

<sup>19</sup> *2010 Sixth Broadband Progress Report*, 25 FCC Rcd at 9559, 9562–66, paras. 5, 9–15 (raising the minimum broadband speed threshold).

<sup>20</sup> See *1999 First Broadband Progress Report*, 14 FCC Rcd at 2406, para. 20.

<sup>21</sup> *2010 Sixth Broadband Progress Report*, 25 FCC Rcd at 9559, 9562–66, para. 5, 9–15; see also *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8078, App. F (Technical Appendix) para. 1 (stating that our “data sources reflect advertised, or ‘up to’ speeds, which may differ from actual speeds that consumers receive.”). In comparison, dial-up Internet access service delivers content at speeds of up to 56 kbps.

<sup>22</sup> See *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8019, para. 15.

<sup>23</sup> See, e.g., CISCO, CISCO VISUAL NETWORKING INDEX: FORECAST AND METHODOLOGY, 2010–2015 (June 1, 2011) (forecasting the impact of visual networking applications), available at [http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white\\_paper\\_c11-481360.pdf](http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-481360.pdf).

<sup>24</sup> See *2010 Sixth Broadband Progress Report*, 25 FCC Rcd at 9565, para. 13. The Commission took both current and estimated future demand into account when establishing the new broadband benchmark “in part to minimize the risk of the Commission being forced to update its broadband benchmarks on an overly frequent basis.” *Id.*

<sup>25</sup> See, e.g., *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8023, 8025–26, paras. 25, 30 (noting that the data relied upon in the last report are collected by pre-determined speed tiers, none of which are 4 Mbps/1 Mbps).

<sup>26</sup> See, e.g., NATIONAL BROADBAND PLAN at 9 (recommending that the country adopt and track the various long-term goals, including that by 2020 at least 100 million U.S. homes have affordable access to actual download speeds of at least 100 Mbps and actual upload speeds of at least 50 Mbps).

<sup>27</sup> 47 U.S.C. § 1302(d)(1) (emphasis added).

<sup>28</sup> For the remainder of this *Inquiry*, we use the term “broadband” synonymously with “advanced telecommunications capability.”

**B. How Should Broadband Deployment Be Interpreted and Measured?**

8. In the *2011 Seventh Broadband Progress Report*, the Commission estimated broadband deployment primarily by relying on the first round of data collected by National Telecommunications and Information Administration (NTIA) through the State Broadband Data and Development (SBDD) Grant Program.<sup>29</sup> These data (SBDD Data) were collected and used to create the National Broadband Map.<sup>30</sup> Our analysis of SBDD Data revealed, as of June 2010, that as many as 26 million Americans lived in areas unserved by broadband capable of “originat[ing] and receiv[ing] high-quality voice, data, graphics, and video telecommunications.”<sup>31</sup> The Commission also presented estimates of broadband deployment by analyzing the subscribership data that the Commission collects on FCC Form 477 (Form 477 Data). As required by section 706, the Commission also compiled a list of unserved areas, including the population; the population density; and the average per capita income identified with SBDD Data and Form 477 Data.<sup>32</sup> We seek comment on how to improve our assessment of broadband deployment and our identification of the unserved areas using these and potentially other data sources.<sup>33</sup> In particular, we seek comment as to whether the unserved areas identified in the *2011 Seventh Broadband Progress Report* remain unserved and whether there are any unserved areas that our analysis did not identify.<sup>34</sup>

**1. SBDD Data**

9. The SBDD Data are the nation’s most current and best publicly available broadband deployment data. The Commission therefore is likely to again rely on these data to assess broadband deployment, which is expected to be updated approximately every six months. We anticipate that in the next report we will be able to rely on more accurate and improved SBDD Data, which will then allow us to better assess broadband deployment. Can the Commission improve its analysis of the SBDD Data to more accurately assess current levels of broadband deployment? Are there any other concerns regarding the SBDD Data that the Commission should factor into its analysis of broadband deployment?<sup>35</sup> We ask commenters to be as specific as possible regarding proposed changes to our analysis of SBDD Data, and the benefits of making such changes.

10. In the *2011 Seventh Broadband Progress Report*, the Commission did not include mobile wireless data in its analysis of the SBDD Data in part due to serious concerns about the accuracy of data regarding mobile broadband speeds.<sup>36</sup> The Commission noted that the SBDD Data reflected network

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<sup>29</sup> *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8022, para. 21; *see also id.* at 8017, para. 13 (noting that, in July 2009, NTIA established the SBDD Grant Program to comply with requirements under the BDIA and the American Recovery and Reinvestment Act of 2009 (Recovery Act); Recovery Act, Pub. L. No. 111-5, 123 Stat. 115, 516.

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

<sup>31</sup> 47 U.S.C. § 1302(d)(1).

<sup>32</sup> *Id.* § 1302(c); *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8029–30, para. 39–41.

<sup>33</sup> We bring commenters’ attention to the Technical Appendix in the *2011 Seventh Broadband Progress Report*, which provided detailed information about the SBDD Data and Form 477 Data, our methods of analysis used to estimate broadband deployment and availability, and the known limitations of the data. *See id.* at 8078, App. F.

<sup>34</sup> *Id.* at 8049–77, Apps. B–E.

<sup>35</sup> *See, e.g., id.* at 8082–83, App. F paras. 9–13 (describing how non-reporting and misreporting of data may affect estimates of which areas are unserved).

<sup>36</sup> *See id.* at 8023–24, para. 26.

status as of June 30, 2010.<sup>37</sup> At that time, most mobile broadband services relied on either Evolution-Data Optimized (EV-DO) or High Speed Packet Access (HSPA), two 3G technologies that—as deployed at that time—were unlikely to reach the broadband benchmark.<sup>38</sup> Notwithstanding that fact, many providers reported their 3G mobile broadband offerings as providing 3 Mbps/768 kbps.<sup>39</sup> With other technologies—such as HSPA+, LTE, and mobile WiMAX—being rolled out in more areas, and with updated and improved SBDD Data, should the Commission include mobile wireless in its analysis of SBDD Data in the next report?<sup>40</sup> To the extent the Commission is unable to rely on SBDD Data to estimate mobile broadband deployment, we invite comment on whether and how the Commission should use other data sources, such as Form 477 and American Roamer, to analyze mobile wireless broadband deployment. Are there any other wireless-specific issues related to the SBDD Data that we should consider in the next report?<sup>41</sup>

## 2. Form 477 Data

11. We seek comment regarding whether and how to utilize Form 477 Data for the purposes of the next broadband progress report. As the Commission explained in the most recent broadband progress report, prior to the collection and release of the SBDD Data, the Form 477 Data were the best data available to the Commission to estimate broadband deployment.<sup>42</sup> The Commission has long acknowledged, however, that because the Form 477 Data are *subscription* data, they are necessarily an imprecise measure of broadband *deployment*.<sup>43</sup> To address these shortcomings, in the pending

<sup>37</sup> *Id.* at 8024, para. 26 n.113 (also noting that the SBDD Data were filed by October 1, 2010).

<sup>38</sup> *Id.* at 8024, para. 26.

<sup>39</sup> See NATIONAL BROADBAND MAP, MAXIMUM ADVERTISED SPEED AVAILABLE, <http://www.broadbandmap.gov/speed> (when wireless is selected at 3 Mbps/768 kbps, significant coverage of the United States is shown, much of this includes 3G coverage).

<sup>40</sup> Additionally, the Commission currently has a proceeding that is considering reforms to our Form 477 data collection, including whether to revise Form 477 to collect more granular mobile broadband data. *See Modernizing the Form 477 Data Program*, WC Docket Nos. 11-10, 07-38, 08-190, 10-132, Notice of Proposed Rulemaking, 26 FCC Rcd 1508, 1532, para. 61 (2011) (*Modernizing Form 477 NPRM*).

<sup>41</sup> For example, mobile wireless consumers may experience diminished speeds in their homes or when there are multiple simultaneous subscribers accessing the service from the same cell site. *See also 2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8083–84, App. F paras. 17–18.

<sup>42</sup> *Id.* at 8024–25, para. 28. Every six months, the Commission collects on Form 477 basic service information from facilities-based broadband providers. *Id.* Form 477 requires filers to report, by census tract, the total number of broadband subscribers, the proportion of subscribers that are residential subscribers, and the number of subscribers broken down by speed tier and technology. *Id.*

<sup>43</sup> *See id.* (stating that the Form 477 subscription data is not a direct measure of where broadband service has been deployed and as a result, the Commission has to make assumptions about the relationship between subscription in an area and the extent of deployment in that area); *id.* at 8086, App. F para. 24 (stating that “our analysis of subscription data to determine deployment may lead us to over-estimate the deployment of broadband networks because we assume that broadband is deployed across an entire area if the number of subscribers exceeds a *de minimis* threshold of 1 percent subscription . . . even if the area is very large”); *see also 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; A National Broadband Plan for Our Future*, GN Docket Nos. 09-51, 09-137, Notice of Inquiry, 24 FCC Rcd 10505, 10526–27, para. 45 (2009); *1999 First Broadband Progress Report*, 14 FCC Rcd at 2402, para. 7. Even if we do not rely on Form 477 Data to estimate broadband (continued....)

*Modernizing Form 477 NPRM* proceeding, the Commission is considering reforms to our Form 477 data collection, including whether to revise Form 477 to improve the Commission's ability to measure broadband deployment.<sup>44</sup> The Commission plans to move forward with reform of this data collection, and we expect that any revisions to Form 477 broadband data collection will assist us in improving our assessment of broadband deployment in future reports. In the last report, we continued to present estimates of broadband deployment based on the Form 477 Data to maintain consistency with past reports and as a way to assess our progress.<sup>45</sup> Because we are now able to assess broadband progress by relying on later rounds of SBDD Data, should we continue to analyze broadband deployment based on Form 477 residential broadband subscribership data?

12. If the Commission continues to use Form 477 subscribership data as an indicator of deployment, how should this analysis be conducted?<sup>46</sup> For instance, what assumptions should we make regarding the interplay between subscribership in an area and the extent of deployment in that area? The Commission has previously addressed this issue through a “*de minimis* threshold.”<sup>47</sup> In the last report, we used a 1 percent *de minimis* threshold and county and census-tract level data to present estimates of broadband deployment.<sup>48</sup> Under the “1 percent *de minimis* threshold,” the Commission has treated an entire county or census tract as served if at least 1 percent of the households in that area subscribed to a broadband service meeting the broadband benchmark.<sup>49</sup> As we explained in the last report, “our use of a conservative (*i.e.*, low) subscribership threshold for determining whether a geographic area is served means that a small number of broadband subscribers in an area will cause us to find that broadband has been deployed to a much larger number of households [*i.e.*, all households in that area].”<sup>50</sup>

13. As we recognized in the *2011 Seventh Broadband Progress Report*, altering either the geographic area or the *de minimis* threshold results in sizeable differences in the estimated number of unserved Americans.<sup>51</sup> The Commission noted that the number of Americans found to be unserved by broadband at both the census-tract and county levels can vary greatly when the *de minimis* threshold is

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deployment in the next report, we may continue to use these data to estimate broadband adoption. *See infra* para. 25.

<sup>44</sup> See generally *Modernizing Form 477 NPRM*, 26 FCC Rcd 1508.

<sup>45</sup> See, e.g., *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8022, 8024–25, 8027–28, paras. 22, 28, 35–37.

<sup>46</sup> In the last report, we excluded mobile wireless data from our Form 477 analysis because it is collected at the state level in Form 477. *See id.* at 8026–27, para. 33. However, as noted above, the Commission has proposed to improve mobile wireless data collection in the *Modernizing Form 477 NPRM*. *See supra* note 40; *Modernizing Form 477 NPRM*, 26 FCC Rcd at 1528, para. 61.

<sup>47</sup> *See, e.g.*, *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8026, 8088, para. 31, App. F para. 29.

<sup>48</sup> *Id.*

<sup>49</sup> *Id.*; *see also id.* at 8026, para. 31 n.128 (stating that “[f]or each area we examine, we define the subscription rate as the number of residential connections that are at least 3 Mbps/768 kbps, divided by the number of households in the area”); *id.* (further stating that “[i]f we were to increase the threshold test, the number of areas that we deem unserved would increase”).

<sup>50</sup> *Id.* at 8088, App. F para. 29. The use of a low threshold helps ensure that broadband deployment is recognized in areas where service is offered. The trade-off is that a low threshold risks masking that some parts of those areas do not have access to broadband if there are high levels of subscribership in the other parts. *See id.* at 8088, App. F para. 30.

<sup>51</sup> *Id.* at 8088, App. F para. 31 & tbl. 9.

increased.<sup>52</sup> At the census-tract level, a 1 percent *de minimis* threshold revealed 23.9 million unserved Americans; a 5 percent threshold, 51.0 million unserved Americans; and a 25 percent threshold, 145.3 million unserved Americans. At the county level, a 1 percent *de minimis* threshold revealed 12.2 million unserved Americans; a 5 percent threshold, 31.8 million unserved Americans; and a 25 percent threshold, 105.2 million unserved Americans.<sup>53</sup>

14. In light of the sensitivity of the analysis to these assumptions, if the Commission were to continue using Form 477 subscribership data as a proxy for deployment, what geographic unit(s) and what *de minimis* threshold(s) should the Commission use in its analysis, and why? Is there a methodology the Commission should use to select a *de minimis* threshold that would reflect the choice of geography used in the analysis? Similarly, how, if at all, should the Commission adjust the *de minimis* threshold, particularly as adoption rates rise? Is there a better way to evaluate broadband deployment using Form 477 Data than the approach the Commission has relied on in past reports? To the extent that there are changes to FCC Form 477 that would improve the Commission's ability to estimate broadband deployment, we encourage commenters to submit recommendations in the pending *Modernizing Form 477 NPRM* proceeding.<sup>54</sup>

### C. Is Broadband Being Deployed to All Americans?

15. The present inquiry concerns the status of broadband to *all Americans*, including elementary and secondary schools and classrooms.<sup>55</sup> As the *2011 Seventh Broadband Progress Report* explained, the Commission has interpreted “*all Americans*” as used in section 706 as having its ordinary meaning, and thus as establishing a goal of universal broadband deployment.<sup>56</sup> In its last report, the Commission found that lack of access to broadband is particularly pronounced for certain groups of Americans.<sup>57</sup> The Commission found that, “[o]n average, unserved Americans live in areas that are more rural and less densely populated, and in which larger proportions of residents are lower-income, less-educated, and more likely to self-identify as being White than in areas served with broadband.”<sup>58</sup>

16. We seek comment on the progress being made to bring broadband to all Americans. Is broadband being deployed to residential consumers, rural communities, elementary and secondary students, minority consumers, persons with disabilities, and individuals living on Tribal lands? How should the Commission make this determination? In the past two reports, the Commission has drawn

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<sup>52</sup> *Id.*

<sup>53</sup> *Id.*

<sup>54</sup> See generally *Modernizing Form 477 NPRM*, 26 FCC Rcd 1508.

<sup>55</sup> 47 U.S.C. § 1302(b) (requiring the Commission annually to “initiate a notice of inquiry concerning the availability of advanced telecommunications capability to *all Americans* (including, in particular, elementary and secondary schools and classrooms)”) (emphasis added). In conducting this inquiry, the Commission must “determine whether advanced telecommunications capability is being deployed to *all Americans* in a reasonable and timely fashion.” *Id.* (emphasis added).

<sup>56</sup> *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8033, para. 48; *2010 Sixth Broadband Progress Report*, 25 FCC Rcd at 9574, para. 28 & n.119.

<sup>57</sup> See *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8028–29, para. 38 (stating that “residents of unserved areas tend to have lower incomes, are less educated, and are more likely to self-identify as White than residents in served areas”); see also *RURAL BROADBAND UPDATE* para. 10 (discussing how rural areas are relatively unserved).

<sup>58</sup> *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8034, para. 51.

inferences about different demographic groups based in part on the demographics of the census tracts in which subscribers are located.<sup>59</sup> We seek comment on this approach and whether there are better alternatives. For instance, are there consumer surveys the Commission should rely on, or rely on more heavily, for its findings regarding the deployment of broadband to particular groups? What data source should the Commission use to determine the geographic boundaries of Tribal areas? Are there other sources of data, surveys, or any other information that could assist us in our efforts to understand the status of broadband for particular groups of Americans? Should the Commission update the analysis of rural broadband deployment that was conducted for the Chairman’s *Rural Broadband Update* in the next broadband progress report?<sup>60</sup>

17. We also seek comment on the deployment of broadband to elementary and secondary schools and classrooms.<sup>61</sup> The federal universal service fund, specifically the schools and libraries support mechanism (also known as the E-rate program), provides substantial support to such entities.<sup>62</sup> According to results of a recent survey of E-rate funded schools and libraries, 80 percent of schools and libraries believe that their broadband connections do not meet their needs generally, and for 55 percent of these respondents, the primary reason is that their broadband speeds are too slow.<sup>63</sup> How should the Commission evaluate the adequacy of broadband connectivity for schools and libraries?

18. We also seek comment on the deployment of broadband to Native Nations<sup>64</sup> and Native Hawaiian Homelands.<sup>65</sup> Recognizing that Tribal lands face unique challenges and significant obstacles to the deployment of broadband infrastructure, the Commission sought comment on how it can better accelerate broadband deployment in Native Nations.<sup>66</sup> What other concrete steps should the Commission

<sup>59</sup> See *id.* at 8029–31, 8038–39, paras. 39–45, 59–60; 2010 *Sixth Broadband Progress Report*, 25 FCC Rcd at 9570–72, paras. 22–25.

<sup>60</sup> See generally RURAL BROADBAND UPDATE; see also *supra* note 5.

<sup>61</sup> See 47 U.S.C. § 1302(b).

<sup>62</sup> See 47 C.F.R. § 54.500–523.

<sup>63</sup> See HARRIS INTERACTIVE, INC., on behalf of the WIRELINE COMPETITION BUREAU, FCC, 2010 E-RATE PROGRAM AND BROADBAND USAGE SURVEY: REPORT 2 (2011), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DA-10-2414A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-10-2414A1.pdf).

<sup>64</sup> Consistent with the *Native Nations NOI*, the term “Native Nations” refers here to federally recognized American Indian Tribes and Alaska Native Villages. *Native Nations NOI*, 26 FCC Rcd at 2673, para. 1 n.1. The term “Tribe[s]” or “Federally recognized Tribe[s]” means any American Indian Tribe or Alaska Native Village, Nation, Band, Pueblo, or Community which is acknowledged by the federal government to have a government-to-government relationship with the United States and is eligible for the programs and services established by the United States for Indians. See Federally Recognized Indian Tribe List Act of 1994, Pub. L. No. 103-454, 108 Stat. 4791 (1994) (the Secretary of the Interior is required to publish in the Federal Register an annual list of all Indian Tribes which the Secretary recognizes to be eligible for the special programs and services provided by the United States to Indians because of their status as Indians); *Native Nations NOI*, 26 FCC Rcd at 2673, para. 1 n.1.

<sup>65</sup> Hawaiian Home Lands are lands held in trust for the homesteading of Native Hawaiians, but not necessarily exclusively so. Unlike federal Indian reservations, non-Native entities may obtain leasehold and entry onto Native Hawaiian Home Lands for the purposes of economic development. See Hawaiian Homes Commission Act, 1920, Pub. L. No. 67-34, §§ 204–210, 220, 220.5, 227, 42 Stat. 108 (1921), as amended; see also *Native Nations NOI*, 26 FCC Rcd at 2673, para. 1 n.2.

<sup>66</sup> See *Native Nations NOI*, 26 FCC Rcd at 2679–83, paras. 10–20 (seeking comment on a Native Nations Broadband Fund, on sustainable Native Nations deployment models, and how to improve broadband adoption and utilization in Native Nations).

take to assess and improve the state of broadband in Tribal lands?

19. Is broadband deployed to Americans in other ways that we should include in our next analysis? For instance, should the existence of broadband at community anchor institutions and publicly available Internet access points (e.g., Internet cafes, coffee shops, and other Wi-Fi hotspots) affect our consideration of broadband deployment and availability?<sup>67</sup> Should we include broadband access at, for example, anchor institutions and publicly available Internet access points in our assessment of broadband deployment, and if so, how could these be measured?

#### D. Is Broadband Deployment Reasonable and Timely?

20. We seek comment on whether broadband “is being deployed” to all Americans “in a reasonable and timely fashion.”<sup>68</sup> In the *2011 Seventh Broadband Progress Report*, the Commission explained that it interpreted “is being deployed” as referring to “existing deployment and current actions that will meaningfully affect broadband deployment in the near future. . . . [but not] general plans or goals to deploy broadband, particularly long-range plans or goals that are uncertain to be realized.”<sup>69</sup> The Commission also found that “broadband deployment is more likely to be reasonable and timely if communities in the United States compare favorably to comparable foreign communities on broadband service capability metrics, and less likely to be reasonable and timely if U.S. communities compare unfavorably.”<sup>70</sup> Based on this interpretation, the Commission found that broadband was not being deployed in a reasonable and timely fashion to all Americans because as many as 26 million Americans live in areas where broadband has still not been deployed and many live in areas where there is no business case to offer broadband.<sup>71</sup> Additionally, the Commission found that the available international broadband data suggested that the United States may lag behind a number of other developed countries in certain respects.<sup>72</sup> We seek comment on these findings and whether the Commission’s interpretation of “being deployed” and “reasonable and timely fashion” remains appropriate.

21. What other measures should we use to assess the reasonableness and timeliness of broadband deployment? For example, in the last two years, more than \$7 billion in federal grants and loans has been allocated under the Rural Utilities Service’s (RUS) Broadband Initiatives Program (BIP) and NTIA’s Broadband Technology Opportunities Program (BTOP) to expand broadband deployment and adoption in unserved and underserved areas.<sup>73</sup> In addition, RUS has distributed grants and loans for rural communications networks through ongoing programs.<sup>74</sup> And the universal service fund program commits

<sup>67</sup> See Dep’t of Commerce, NTIA, State Broadband Data and Development Grant Program, Docket No. 0660-ZA29, Notice of Funds Availability, 74 Fed. Reg. 32545, 32548 (July 8, 2009) (defining community anchor institutions as “[s]chools, libraries, medical and healthcare providers, public safety entities, community colleges and other institutions of higher education, and other community support organizations and entities.”), available at [http://www.ntia.doc.gov/frnotices/2009/FR\\_BroadbandMappingNOFA\\_090708.pdf](http://www.ntia.doc.gov/frnotices/2009/FR_BroadbandMappingNOFA_090708.pdf).

<sup>68</sup> 47 U.S.C. § 1302(b).

<sup>69</sup> See *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8033, para. 47.

<sup>70</sup> *Id.* at 8033–34, para. 49; 47 U.S.C. § 1303(b)(1) (“As part of the assessment . . . required by section 1302 of this title, the Federal Communications Commission shall include information comparing the extent of broadband service capability . . . in a total of 75 communities in at least 25 countries abroad . . . ”).

<sup>71</sup> *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8009, para. 1.

<sup>72</sup> *Id.* at 8010, para. 2.

<sup>73</sup> See Recovery Act, 123 Stat. at 118, 128; see also RURAL BROADBAND UPDATE para. 3.

<sup>74</sup> *Id.*

approximately \$8 billion annually for various programs that include some broadband services.<sup>75</sup> What is the status of these efforts and how can we assess the impact of these programs? What impact have these programs had on broadband deployment on Tribal lands? Have there been sufficient changes in broadband deployment and availability that would warrant a different conclusion regarding the reasonableness and timeliness of broadband availability in the next report?

#### E. Is Broadband Available to All Americans?

22. In the *2011 Seventh Broadband Progress Report*, the Commission determined that the inquiry required by section 706(b), is not limited to a narrow evaluation of physical network deployment.<sup>76</sup> The Commission found that the language and legislative history of section 706 suggested that such factors as cost, quality, and adoption should also be examined.<sup>77</sup> We seek comment on this interpretation and how we should measure and analyze broadband availability in the next broadband progress report.

23. Although the Commission has not adopted a definitive list of factors to assess broadband availability, the cost and quality of broadband services and consumers' perceptions regarding those factors are important.<sup>78</sup> What other factors, if any, should the Commission consider in evaluating broadband availability, and how should they be measured? Survey data indicate that cost is a major reason why some consumers do not subscribe to broadband.<sup>79</sup> How should the Commission factor the cost of broadband into its assessment of broadband availability?<sup>80</sup> Service quality may also be an important factor for consumers. How should the Commission factor service quality, or other characteristics of a service, into its assessment of broadband availability?

24. *Adoption Rates as Evidence of Availability.* We also seek comment on whether the Commission should continue to examine adoption rates as an indicator of whether broadband is available.<sup>81</sup> In *2011 Seventh Broadband Progress Report*, the Commission found that, “[t]he large

<sup>75</sup> See *Connect America Fund*, 26 FCC Rcd at 4559, para. 6 (noting that the high cost program was \$4.3 billion in 2010); *Lifeline and Link Up Reform and Modernization; Federal-State Joint Board on Universal Service; Lifeline and Link Up*, WC Docket Nos. 11-42, 03-109, CC Docket No. 96-45, Notice of Proposed Rulemaking, 26 FCC Rcd 2770, 2773 para. 3 (2011) (noting that Lifeline/Link Up has grown to \$1.3 billion in 2010); *Schools and Libraries Universal Service Support Mechanism; A National Broadband Plan for Our Future*, CC Docket No. 02-6; GN Docket No. 09-51, Notice of Proposed Rulemaking, 25 FCC Rcd 6872, 6874, para. 7 (2010) (noting the \$2.25 billion funding cap); *Rural Health Care Support Mechanism*, WC Docket No. 02-60, Order and Notice of Proposed Rulemaking, FCC 11-101, para. 22 (Jun. 21, 2011) (noting the Rural Health Care program's \$400 million cap, though it commits substantially less).

<sup>76</sup> 2011 *Seventh Broadband Progress Report*, 26 FCC Rcd at 8020–21, paras. 18–20.

<sup>77</sup> *Id.*

<sup>78</sup> See, e.g., 47 U.S.C. § 1302(d)(1) (directing the Commission to assess deployment and availability of a “capability that enables users to originate and receive *high-quality* voice, data, graphics, and video telecommunications using any technology”) (emphasis added).

<sup>79</sup> John B. Horrigan, *Broadband Adoption and Use in America 5* (OBI Working Paper No. 1, 2010), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-296442A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-296442A1.pdf); see also *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8042–43, para. 70.

<sup>80</sup> As mentioned above, the Commission is considering revisions in its Form 477 data collection. See *supra* para. 11; see generally *Modernizing the Form 477 Data Program*, 26 FCC Rcd 1508.

<sup>81</sup> 2011 *Seventh Broadband Progress Report*, 26 FCC Rcd at 8035–38, paras. 53, 58; see also INDUSTRY ANALYSIS AND TECHNOLOGY DIVISION, FCC, INTERNET ACCESS SERVICES: STATUS AS OF JUNE 30, 2010, at 35 (Mar. 2011) (showing that 64 percent of American households subscribe to a “high speed” Internet service advertised as being (continued....)

adoption gap also persuades us that broadband is not available to all Americans [and] [w]ere broadband truly available to all unserved Americans, we would expect to see greater adoption than we see today given how vital broadband has become to so many aspects of economic and social life.”<sup>82</sup> We seek comment on the adoption gap and what inferences can be drawn from that gap regarding broadband availability.

25. Are there other measures that the Commission should use to better assess broadband adoption and availability, or any new sources of information? In the past, we have relied upon Form 477 Data and survey data to assess broadband adoption.<sup>83</sup> What data sources should the Commission use to estimate broadband adoption in the next broadband progress report? The *2011 Seventh Broadband Progress Report* explained that the Form 477 subscribership data are not a direct measurement of broadband adoption.<sup>84</sup> If we continue to use Form 477 Data as a basis for evaluating adoption, would it be reasonable for the Commission to estimate adoption by comparing the number of Americans that *could* subscribe to broadband in a given area relying on SBDD Data (denominator) with the number of Americans that *do* subscribe to broadband in an area relying on Form 477 Data (numerator)? What surveys should the Commission rely on to assess broadband adoption in the next report? Are there any other data sources the Commission should use to estimate broadband adoption?

#### F. Other Data

26. We seek comment on new data sources and different ways of conducting our analysis that would improve the Commission’s annual broadband progress reports. Are there any ongoing efforts to collect broadband deployment or availability data that we should consider other than those discussed in this *Inquiry*? As noted above, the Commission must conduct a consumer survey to evaluate “the national characteristics of the use of broadband” and make the results of the survey public at least once per year.<sup>85</sup> We seek input on whether there are any particular types of survey or survey questions that would be particularly beneficial. We also solicit general input on the Commission’s survey efforts.

27. *International Broadband Data Report*. We seek comment on the preparation of next year’s *International Broadband Data Report* and how best to include this international comparison in the *Eighth Broadband Progress Report*.<sup>86</sup> Section 706 requires that the Commission include an international

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capable of delivering over 200 kbps in at least one direction), *available at*  
[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-305296A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-305296A1.pdf).

<sup>82</sup> *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8039, para. 61.

<sup>83</sup> *Id.* at 8035–38, paras. 53, 58.

<sup>84</sup> See *id.* at 8027, para. 34 n.133 (stating that the Form 477 subscription data “tell us the number of subscriptions in an area, but not the number of people who have access to service. Therefore, we can only calculate a subscription rate (the number of subscriptions as a fraction of the total number of households) rather than an adoption rate (the number of subscriptions as a fraction of the number of households who have access to broadband.”)); *id.* at 8037, para. 58 n.197 (“The Form 477 Data are a collection of subscribers of various Internet access services reported by broadband providers. These data therefore differ from adoption data, which would indicate broadband usage, including perhaps broadband usage at work or anchor institutions such as libraries, community centers, and businesses that offer Wi-Fi.”).

<sup>85</sup> 47 U.S.C. § 1303(c). Although the Commission must make publicly available the results of the consumer surveys it conducts at least once per year, the statute does not require that this be done in the broadband progress reports.

<sup>86</sup> See *International Comparison Requirements Pursuant to the Broadband Data Improvement Act; International Broadband Data Report*, IB Docket No. 10-171, Second Report, 26 FCC Rcd 7378, 7378–79, 7399–505, para. 1, Apps. C–G (2011) (*2011 International Broadband Data Report*) (showing, based on Organization for Economic Co-operation and Development data from 2009 or the latest available year, the United States ranked 12th for fixed (continued....)

comparison of broadband service capability in its annual broadband progress report.<sup>87</sup> Specifically, the Commission must “include information comparing the extent of broadband service capability (including data transmission speeds and price for broadband service capability) in a total of 75 communities in at least 25 countries abroad for each of the data rate benchmarks for broadband service utilized by the Commission to reflect different speed tiers.”<sup>88</sup> In the *2011 Seventh Broadband Progress Report*,<sup>89</sup> the Commission found that “the available international broadband data, though not perfectly comparable to U.S. data, suggest that the availability and deployment of broadband in the United States may lag behind a number of other developed countries in certain respects, although we also compare favorably to some developed countries in certain respects.”<sup>90</sup> What improvements can be made to the data and analysis in the *2011 International Broadband Data Report?*<sup>91</sup>

#### G. What Actions Can Accelerate Deployment?

28. Section 706 requires that, if the Commission finds that broadband is not being deployed to all Americans in a reasonable and timely manner,<sup>92</sup> it must “take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.”<sup>93</sup> In the *2011 Seventh Broadband Progress Report*, the Commission found many barriers to infrastructure investment, and noted that some barriers “increase the costs of deploying and operating broadband networks, while others reduce the revenue available to broadband providers by hindering adoption.”<sup>94</sup> The Commission further found that removing barriers to investment requires removing obstacles to deployment, competition, and adoption, which are all interrelated and tightly linked.<sup>95</sup>

29. We seek comment on the key barriers to infrastructure investment the Commission identified

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broadband adoption on a per household basis, behind countries such as South Korea, the United Kingdom, Canada, and Germany); *see also 2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8010, para. 2 n.12.

<sup>87</sup> 47 U.S.C. § 1303(b).

<sup>88</sup> *Id.* § 1303(b)(1); *see also id.* § 1303(b)(2) (“The Commission shall choose communities for the comparison under this subsection in a manner that will offer, to the extent possible, communities of a population size, population density, topography, and demographic profile that are comparable to the population size, population density, topography, and demographic profile of various communities within the United States. The Commission shall include in the comparison under this subsection—(A) a geographically diverse selection of countries; and (B) communities including the capital cities of such countries.”); *id.* § 1303(b)(3) (“The Commission shall identify relevant similarities and differences in each community, including their market structures, the number of competitors, the number of facilities-based providers, the types of technologies deployed by such providers, the applications and services those technologies enable, the regulatory model under which broadband service capability is provided, the types of applications and services used, business and residential use of such services, and other media available to consumers.”).

<sup>89</sup> *See 2011 Seventh Broadband Progress Report*, 26 FCC Rcd 8045–46, para. 77 (incorporating the *2011 International Broadband Data Report* by reference).

<sup>90</sup> *See id.* at 8010, para. 2.

<sup>91</sup> *See generally 2011 International Broadband Data Report*, 26 FCC Rcd 7378.

<sup>92</sup> 47 U.S.C. § 1302(b).

<sup>93</sup> *Id.*

<sup>94</sup> *2011 Seventh Broadband Progress Report*, 26 FCC Rcd at 8040, para. 65.

<sup>95</sup> *Id.*

in its last report. These barriers were: (1) costs and delays in building out networks and offering service; (2) low broadband service quality, including performance insufficient to enable consumers to use the applications and service they wish to use, and the applications Congress has specified; (3) lack of affordability of broadband Internet access services; (4) consumers' lack of access to computers and other broadband-capable equipment; (5) lack of relevance of broadband for some consumers; (6) poor digital literacy; and (7) consumers' lack of trust in broadband and Internet content and services, including concerns about inadequate privacy protections.<sup>96</sup> Are there other barriers we should consider? How can we reduce the impact of these barriers?

30. In light of these and other barriers, what actions can and should the Commission take to accelerate broadband deployment and adoption? Are there any other issues the Commission should consider in this proceeding that might help the nation reach our goal of universal broadband? For example, what unique barriers to broadband adoption and deployment exist on Tribal lands and what steps should the Commission take to address these barriers?<sup>97</sup>

### III. PROCEDURAL MATTERS

#### A. Ex Parte Presentations

31. The proceeding that this *Inquiry* initiates shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission’s *ex parte* rules.<sup>98</sup> Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter’s written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (*e.g.*, .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission’s *ex parte* rules.

#### B. Comment Filing Procedures

32. Pursuant to sections 1.415, 1.419, and 1.430 of the Commission’s rules,<sup>99</sup> interested persons may file comments and replies regarding the *Inquiry* on or before the dates indicated on the first page of

<sup>96</sup> *Id.*

<sup>97</sup> See, e.g., *Native Nations NOI*, 26 FCC Rcd at 2680, para 12 (noting that “‘Tribal-centric’ business models—those that actively engage the Native Nation, its core community institutions, and members in deployment and adoption planning—have a greater chance of establishing sustainable services on Tribal lands”).

<sup>98</sup> 47 C.F.R. §§ 1.1200 et seq.

<sup>99</sup> 47 C.F.R. §§ 1.415, 1.419, 1.430.

this document. **All filings related to this *Inquiry* should refer to GN Docket No. 11-121.** Comments may be filed using: (1) the Commission's Electronic Comment Filing System (ECFS), (2) the Federal Government's eRulemaking Portal, or (3) by filing paper copies. *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://fjallfoss.fcc.gov/ecfs2/> or the Federal eRulemaking Portal: <http://www.regulations.gov>. Filers should follow the instructions provided on the website for submitting comments.
- Paper Filers: Parties who choose to file by paper must file an original and four copies of each filing.
- Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
  - All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12<sup>th</sup> St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.
  - Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
  - U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12<sup>th</sup> Street, SW, Washington DC 20554.

#### C. Accessible Formats

33. To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer and Governmental Affairs Bureau at 202-418-0530 (voice) or 202-418-0432 (TTY). Contact the FCC to request reasonable accommodations for filing comments (accessible format documents, sign language interpreters, CART, etc.) by e-mail: [FCC504@fcc.gov](mailto:FCC504@fcc.gov); phone: 202-418-0530 or TTY: 202-418-0432.

#### D. Paperwork Reduction Act

34. This document does not contain proposed information collection(s) subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. In addition, therefore, it does not contain any new or modified information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 47 U.S.C. § 3506(c)(4).

**IV. ORDERING CLAUSE**

35. Accordingly, IT IS ORDERED that, pursuant to section 706 of the Telecommunications Act of 1996, as amended, 47 U.S.C. § 1302, and section 103(b) of the Broadband Data Improvement Act, 47 U.S.C. § 1303(b), this *Notice of Inquiry* IS ADOPTED.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch  
Secretary

**STATEMENT OF  
CHAIRMAN JULIUS GENACHOWSKI**

*Re: 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. 11-121, Eighth Broadband Progress Notice of Inquiry*

Each year, broadband providers invest tens of billions of dollars in infrastructure – building out nationwide 4G networks and expanding wireline networks to all areas of the country. Broadband providers are rolling out networks to millions of homes that can deliver speeds of 50 Mbps or higher using DOCSIS 3.0 and fiber technologies.

But we know from our last broadband progress report, released earlier this year, that the U.S. is still not where it needs to be in this area: More than 20 million Americans remain without access to robust broadband, and there is broad consensus that market forces alone won't close this gap in the near future. And almost one third of Americans—100 million of us—haven't adopted broadband. Some find this acceptable; I do not.

Congress has given the Commission the responsibility to issue a broadband progress report for the country each year, and to ensure that broadband is being deployed in a reasonable and timely fashion to all Americans. This is one of our most important duties, one that advances innovation and investment, helps create jobs, and brings much-needed benefits to consumers.

The Commission has taken important steps to address the country's broadband challenges, including making more spectrum for broadband available, reducing barriers to broadband infrastructure deployment, empowering consumers, and promoting innovation and investment throughout the broadband economy. But more remains to be done. The Commission is in the home stretch of Universal Service Fund and intercarrier compensation reform, and will complete that proceeding soon. We are also working to unleash more spectrum for broadband, and to significantly increase broadband adoption.

Today we launch the process to develop our next broadband progress report, seeking broad public input on how to continue improving the data and analysis we use to monitor and accelerate our nation's progress toward our shared goal of universal broadband.

**STATEMENT OF  
COMMISSIONER ROBERT M. McDOWELL**

*Re:* *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. 11-121, Eighth Broadband Progress Notice of Inquiry*

Section 706 of the Telecommunications Act of 1996 requires the Commission to issue a report determining whether “advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.”<sup>1</sup> In all of the reports starting with the first in 1999, the Commission has answered “yes” to that question. In its 2010 706 report, however, the Commission dramatically reversed course and concluded that broadband is not being deployed in a reasonable and timely fashion to all Americans. The Commission issued the same conclusion in its 2011 report. I dissented from both reports because their conclusions were inaccurate and unsettling. For instance, in just six years, broadband deployment skyrocketed from reaching only 15 percent of Americans in 2003, to 95 percent by the end of 2009. Furthermore, I have repeatedly warned that such conclusions could be used to support a regulatory agenda with unintended and harmful effects. Unfortunately, my fears were realized because within five months of the 2010 706 report: the Commission’s 3-2 vote to regulate Internet network management extensively relied on the findings in the 2010 706 report.

Today, the Commission is initiating the 706 review process for 2012 by issuing this Notice of Inquiry. As always, I welcome the opportunity to assess America’s progress in broadband deployment, which has proven to be the fastest penetrating disruptive technology in American history. Nevertheless, my support of this Notice should not be construed as an endorsement of any particular reference or conclusion in the previous two 706 reports or of similar language in this Notice.

I look forward to working with my colleagues on this new review. And, in particular, I look forward to reading comments as to whether this next review should consider the effects of mobile broadband deployment.

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<sup>1</sup> 47 U.S.C. § 1302(b) (Section 706 of the Telecommunications Act of 1996 has since been codified in Title 47, Chapter 12 of the United States Code but is commonly referred to as “Section 706”).