

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

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In the Matter of

Establishing the Digital Opportunity Data  
Collection

WC Docket No. 19-195

Modernizing the FCC Form 477 Data Program

WC Docket No. 11-10

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**REPLY COMMENTS OF VERIZON<sup>1</sup>**

The record overwhelmingly supports the Commission’s goal of expanding and rationalizing its efforts to collect reliable and accurate broadband coverage data. Improved data will provide critical information for the Commission to direct future policy decisions and further its understanding of broadband deployment. There is also a growing consensus on some of the ways the Commission should go about it: commenters for the most part agree that the use of shapefile polygons should be augmented by establishing and integrating a more granular broadband location fabric. But they also agree that those efforts to improve the Commission’s broadband data collection process should not unnecessarily impose significant burdens on the providers or Commission. Thus, the Commission should move forward with both the location fabric and the shapefile reporting in a manner that provides improved and useful information without adding unnecessary complications.

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<sup>1</sup> The Verizon companies participating in this filing are the regulated, wholly owned subsidiaries of Verizon Communications Inc.

**A. The Record Supports the Thoughtful Development of Both Shapefile Polygons and a Location Fabric for an Improved Understanding of Broadband Deployment**

The record shows substantial support for the development of location-based reporting like the Broadband Serviceable Location Fabric that provides granular data on locations that lack broadband service.<sup>2</sup> We agree with other commenters' broad support for location-based mapping and, specifically, support USTelecom's effort to create a national Fabric, which would complement the polygons that providers submit<sup>3</sup> and provide more – and necessary – detail about where broadband has been deployed and where it is not.

To ensure that submitting shapefile polygons showing service availability is done efficiently, numerous commenters support using flexible parameters. The Commission should accept shapefile polygon data from providers that they have already optimized for internal decision-making, rather than a one-size-fits-all approach.<sup>4</sup> In permitting flexible parameters, the Commission could set outer bounds that still provide for flexibility in order to preserve data compatibility and a baseline standard.<sup>5</sup>

**B. The Commission Should Adopt Processes to Ensure It Efficiently Collects Accurate Data**

First, USTelecom and NCTA suggest – and we agree – that the Commission adopt the same availability map update schedule used for Form 477 filings, which allows each provider to

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<sup>2</sup> See Illinois Dep't of Innovation & Tech. Comments at 6-7; Alexicon Comments at 7-8; GVNW Consulting Comments at 7; Connected Nation Comments at 8-9; Alaska Commc'ns Comments at 16-17; Cal. Pub. Utils. Comm'n Comments at 2; N.C. Dep't of Info. Tech. Broadband Infrastructure Office Comments at 3.

<sup>3</sup> See USTelecom Joint Comments at 4-20.

<sup>4</sup> See, e.g., NCTA Comments at 5-6; ACA Connects Comments at 6-7; WTA Comments at 3-4.

<sup>5</sup> See Connected Nation Comments at 3; Alaska Commc'ns Comments at 7-8; USTelecom Joint Comments at 21-22.

submit all of its updates at the same time on a semi-annual basis.<sup>6</sup> As it appears in the *FNPRM*, the Commission initially envisioned that providers would update their shapefile polygons within six months of each significant change, which would result in rolling updates keyed to individual submissions and corrections.<sup>7</sup> But, as commenters note,<sup>8</sup> such an unwieldy approach could create significant logistical complications and burdens if it required providers to continually churn through reports instead of sending regular, synchronized batches that align against one another and the Commission's other reports. The Commission should therefore confirm it will mirror the schedule for all shapefile polygon updates to the existing schedule for semi-annual Form 477 reports.

Second, the Commission should tailor the public feedback process to reveal true coverage gaps. The record shows widespread support for a reasonable public feedback process designed to improve the reliability of existing broadband coverage information.<sup>9</sup> Commenters correctly emphasize that the Commission should focus the public feedback it seeks on identifying *genuine* challenges to a provider's assertion of service and exclude bad-faith submissions or feedback on miscellaneous features of the service provided.<sup>10</sup> Further, while such a public feedback process can create valuable "crowdsourced" information, the Commission must remain mindful that a public "complaint" process in this context would distract from the goal of fine-tuning coverage maps. Public feedback that an area lacks coverage is not suitable for resource-intensive formal

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<sup>6</sup> See, e.g., USTelecom Joint Comments at 19-20; NCTA Comments at 7-8.

<sup>7</sup> *FNPRM* ¶ 16.

<sup>8</sup> USTelecom Joint Comments at 19-20; NCTA Comments at 7-8.

<sup>9</sup> See, e.g., USTelecom Joint Comments at 27-30; WTA Comments at 10-12; NTCA Comments at 11-12.

<sup>10</sup> See NCTA Comments at 9-10; WTA Comments at 12-13; NTCA Comments at 11-12.

challenge procedures, which should be at most reserved for disputes concerning Universal Service auctions or funding.<sup>11</sup>

Third, the Commission correctly excluded pricing data from the broadband data collection. A few commenters propose that the Commission collect broadband pricing data along with broadband availability data;<sup>12</sup> these suggestions should be rejected. The Commission has already correctly decided to exclude pricing data from this initiative.<sup>13</sup> Mapping broadband *availability* is an important and complex task, and the Commission should not further complicate this process by including data peripheral to that effort. Producing detailed, location-specific data, in a rigid format for different tiers of service and across all providers, raises substantial practical difficulties,<sup>14</sup> and assertions to the contrary misunderstand the burden it would impose on providers and the Commission.<sup>15</sup>

Fourth, the Commission should reject the proposal of two commenters that the Commission make confidential subscription information available to the public.<sup>16</sup> Publicizing this user and provider information would undermine the Commission's long history of

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<sup>11</sup> See NTCA Comments at 10.

<sup>12</sup> See, e.g., Open Tech. Inst. & Pub. Knowledge Comments at 2-5; Free Press Comments at 8-12; Next Century Cities Comments at 7-11; Colorado Comments at 7.

<sup>13</sup> See *FNPRM* ¶ 12 n.24 (rejecting a request to collect “broadband affordability and pricing information, data on end user demographics, performance data that measures actual broadband speeds and latency, and vulnerability and resiliency network data”).

<sup>14</sup> See, e.g., ACA Reply Comments at 4, WC Docket No. 11-10 (Oct. 24, 2017); NTCA Reply Comments at 5 & n.18, WC Docket No. 11-10 (Oct. 24, 2017) (noting that proposals for the Commission to collect pricing information were not made by the entities who would bear what would be significant costs).

<sup>15</sup> See, e.g., Open Tech. Inst. & Pub. Knowledge Comments at 2-5.

<sup>16</sup> See, e.g., Free Press Comments at 12-13; City of New York Comments at 5-6.

maintaining detailed subscriber data as confidential due to the substantial risk of significant competitive harm from disclosure.<sup>17</sup>

**C. The Commission Should Adopt Standardized Parameters for the Mobile Broadband Data Collection**

The Commission should adopt standardized 4G LTE modeling parameters. In particular, numerous parties agree that the Commission should specify a cell edge probability of 90 percent, a loading factor of 50 percent, a download speed of 5 Mbps, and an upload speed of either 1 Mbps or a speed sufficient to support VoLTE.<sup>18</sup> In addition, the Commission should require that the coverage data assume a stationary user and reflect an outdoor level of coverage.<sup>19</sup>

The Commission should not adopt CCA's or Deere's proposals to specify a standardized signal strength parameter such as RSRP or RSSI.<sup>20</sup> As CTIA notes, the Commission has already found that a speed parameter "subsumes a specific signal strength value" that depends on each provider's specific spectrum and network configuration.<sup>21</sup> Because providers use both different spectrum bands and different bandwidths, the Commission is not able to adopt a standardized signal strength value that would be appropriate for all carriers.

The record shows that the adoption of robust standardized modeling parameters such as a 90 percent cell edge probability and 50 percent loading factor will address the primary concerns

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<sup>17</sup> Verizon Comments at 16, WC Docket No. 11-10 (Oct. 10, 2017); ACA Reply Comments at 8-9, WC Docket No. 11-10 (Oct. 24, 2017).

<sup>18</sup> Verizon Comments at 9; CTIA Comments at 5-6; AT&T Comments at 4; U.S. Cellular Comments at 15.

<sup>19</sup> See CTIA Comments at 5. New York City's suggestion that coverage data reflect indoor coverage, and reflect coverage at different levels of multi-story buildings (*see* City of New York Comments at 3), is inconsistent with the purpose of the data collection – to determine mobile broadband availability.

<sup>20</sup> Deere Comments at 9-10; CCA Comments at 5.

<sup>21</sup> CTIA Comments at 7.

that have been raised about the Form 477 data collection; i.e., carrier-to-carrier variation in modeling assumptions and perceived variances between submitted data and consumers' experience on the ground.<sup>22</sup> By adopting robust parameters, the Commission will “increase[] the likelihood that the consumer experience will align with the results predicted by the model.”<sup>23</sup>

There is no need for the Commission to adopt other proposals that are of limited value or would impose significant burdens on providers. In particular, there is nothing in the record that provides any basis for the Commission to ignore its previous findings that crowdsourced data have fundamental limitations; i.e., that the data are not collected under controlled conditions or in a statistically significant manner.<sup>24</sup> Consequently, the Commission should continue its longstanding practice of using crowdsourced data only to supplement carriers' data submissions,<sup>25</sup> not to “validate” such submissions. At a minimum, the Commission should conduct the limited pilot program proposed by CTIA before taking any step that would expand its use of crowdsourced data.<sup>26</sup>

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For the reasons discussed above, the Commission should modify its broadband mapping requirements consistent with Verizon's comments.

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<sup>22</sup> CTIA Comments at 5-6; U.S. Cellular Comments at 13-15.

<sup>23</sup> CTIA Comments at 6.

<sup>24</sup> *FNPRM* ¶¶ 123-124; *see also* CTIA Comments at 9.

<sup>25</sup> *See* Report, *Communications Marketplace Report*, 33 FCC Rcd 12558, ¶¶ 25-28 (2018); 2019 Broadband Deployment Report, *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, 34 FCC Rcd 3857, ¶¶ 29-30 (2019).

<sup>26</sup> CTIA Comments at 8-11.

William H. Johnson  
*Of Counsel*

Respectfully submitted,

/s/ Katharine R. Saunders

Katharine R. Saunders

Tamara L. Preiss

Ian J. Dillner

VERIZON

1300 I Street, N.W., Suite 500E

Washington, D.C. 20005

(202) 515-2462

Scott H. Angstreich

Julia L. Haines

KELLOGG, HANSEN, TODD, FIGEL

& FREDERICK, P.L.L.C.

1615 M Street, N.W., Suite 400

Washington, D.C. 20036

(202) 326-7930

*Attorneys for Verizon*

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