January 3, 2020

Via ECFS

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street SW
Washington, DC 20554


Dear Ms. Dortch:

On behalf of USTelecom, a group of incumbent local exchange carriers met recently with the staff of the Federal Communications Commission (“Commission”) in the above-referenced docket to advocate that the Commission lower the upstream speed for the 100 Mbps performance tier from 20 to 10 Mbps. They argued that “a 20 Mbps upload target provides little to no additional benefits to the end user customer as all key upload cases…can be similarly accomplished with 10 Mbps.” The Fiber Broadband Association (“FBA”) begs to differ.

Attached are data on consumer use of broadband upload capabilities from the market research firm, RVA LLC, and other sources. The market research data from RVA LLC show that average upload speeds in the U.S. surpassed 10 Mbps over two years ago, grew by 75 percent over the next year, and continues to increase significantly. Speed test data from Ookla

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1 See Letter from AJ Burton, Vice President, Federal Regulatory, Frontier Communications, to Ms. Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 19-126 (Dec. 23, 2019). See also Letter from Louis Peraetz, Vice President of Policy, Wireless Internet Service Providers Association, WC Docket No. 19-126 (Dec. 31, 2019), which supported the USTelecom proposal (“WISPA agrees that a 10:1 upload:download ratio would ‘better match…most consumer services on the market today.’”).

show that average upload speeds are even higher – 38.71 Mbps as of December, 2018 and increasing to 48.41 Mbps as of November, 2019.³

Given the substantial and continuing growth in demand for upstream bandwidth, it is clear that the same virtuous cycle that has fed (and continues to feed) increased downstream consumer demand – higher performance infrastructure driving the development of more bandwidth hungry apps/content driving deployment of higher performance infrastructure – is now at work for upstream demand. The RVA LLC research shows that this burgeoning upstream demand is being driven by widespread consumer adoption of such “producer” apps/content as social media, gaming, video sharing, video conferencing, and other applications.⁴ As such, USTelecom’s snapshot of the market today is out-of-focus. Further, because funding for the Rural Digital Opportunity Fund program will flow at least through 2030, there is no support for adopting an already antiquated upstream speed of 10 Mbps for the 100 Mbps performance tier. In fact, the evidence supports just the opposite, adoption of an even higher upstream speed requirement.

This letter is being filed electronically pursuant to Section 1.1206 of the Commission’s rules.⁵

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Attachment: “Data Review of the Importance of Upload Speeds, January 2, 2020,” RVA LLC.

cc: Preston Wise  
Arielle Roth  
Joseph Calascione

³ from low-upload speed DSL and satellite services (2 to 3 Mbps), found the median upload speed for all consumers was 14 Mbps.

⁴ Id. at 4.

⁵ 47 C.F.R. § 1.1206.
Travis Litman
Austin Bonner
Trent Harkrader
Alexander Minard
Nathan Eagan
Michael Janson
Jonathan McCormack
Data Review Of The Importance Of Upload Speeds
January 2, 2020
The U.S. average upload speeds passed 10 Mbps in 2017 according to random surveying executed by RVA. The last survey was taken in April of 2019.

The average upload speeds from consumers ordering speed tests in the U.S. are higher: Ookla Speedtest.net reported 38.71 Mbps for December 2018 and 48.41 Mbps for November 2019, representing a one-year increase of 25%.
Based on recent RVA Consumer Study analysis comparing each particular respondent’s actual tested upload speed versus that respondent’s satisfaction rating for their service’s upload capacity shows that satisfaction with upload speeds doesn’t jump significantly until upload speeds exceed 25 Mbps.

**Net Promoter Score For Upload Versus Tested Upload Speeds**

**RVA Consumer Study 2019**

Net Promoter Score = Percent rating very satisfied (5) minus those rating not satisfied (1-3)
Internet users in 2019 utilized a number of applications with significant upload components.

**Examples Of Applications With Significant Upload Component**

**RVA Consumer Study 2019**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participate in social media</td>
<td>55%</td>
</tr>
<tr>
<td>Play online games</td>
<td>48%</td>
</tr>
<tr>
<td>Upload large files (documents, photos, music, etc.)</td>
<td>30%</td>
</tr>
<tr>
<td>Use two-way video conferencing</td>
<td>22%</td>
</tr>
<tr>
<td>Upload video content to YouTube or similar sites</td>
<td>18%</td>
</tr>
<tr>
<td>Use offsite storage/ backup of files</td>
<td>17%</td>
</tr>
<tr>
<td>Use remote software/ “cloud computing”</td>
<td>14%</td>
</tr>
<tr>
<td>Participate in online education courses</td>
<td>13%</td>
</tr>
</tbody>
</table>
One-half of Internet users utilize three or more Internet applications with significant upload components.

**Number Of Applications With Significant Upload Component**

**RVA Consumer Study 2019**

- 0: 17%
- 1-2: 32%
- 3-4: 28%
- 5-6: 14%
- 7-8: 6%
- 9-10: 2%
- Over 10: 1%
RVA Broadband Consumer Study Methodology

Since 2007, RVA has conducted annual quantitative consumer market research for the Fiber Broadband Association (formerly the FTTH Council Americas), usually fielded in the second quarter of each year.

The study is conducted among a demographically balanced random sample of over 2,000 U.S. online consumers, and over 300 in Canada – with sample obtained from online panels with millions of participants.

The study uses a detailed questionnaire designed to determine, and track over time, online attitudes, usage, behaviors, and broadband impacts from various types of Internet users by technology: FTTH, Cable, DSL, Wireless, Satellite, and even dial-up.

In addition to questions of participants, the survey is now designed to automatically record speed test and latency data of the survey participant.

The study has a large enough sample size to allow crosstabulation by many types of subgroups.
Data Review Of The Importance Of Upload Speeds
January 2, 2020