



Federal Communications Commission
Washington, D.C. 20554

Aug 7, 2014

VIA ECFS ELECTRONIC DELIVERY

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

Re: Measuring Broadband American Program (Fixed Collaborative), GN Docket No. 12-264

Dear Ms. Dortch:

On July 30, 2014, representatives of broadband providers, public interest groups, companies, and other organizations met in person and via conference call with Commission staff to follow up on the discussions that were held on July 16, 2014.¹ The main terms of reference for this meeting were to discuss:

1. Consistency of Speed Metrics and
2. Video service delivery evaluation and characterization

After general introductions, Mr. Walter Johnston, Chief, EMCD/OET presented the views of the FCC with respect to the “Consistency of Speed” Metrics that were used in the 2014 report.² The value of 80% (i.e. percent of users experiencing a greater than 80% of the advertised speed more than 80% of the time) was chosen by the FCC as the defining metric in the FCC MBA report

¹ A list of attendees and presentation materials are attached to this filing in GN Docket No. 12-264.

² Set of slides “Consistency of Service” by Walter Johnston.

summary because it reflected a clear inflection point in the results. A choice of 70% provided a high value of compliance while on the other hand a choice of 90% resulted in a low level of compliance. Mr. Johnston noted that the new Chairman of the FCC is focused on carrier transparency and consumer service experience, and that the main aim of this metric was to provide a clear indication on the user's experience of broadband services. The FCC Chairman is concerned that service providers are not providing their consumers enough information about their actual service performance. For example, DSL modem performance is greatly influenced by the loop-length. However, some advertising still emphasizes an 'up to rate' while other advertising may give a fairly broad range of possible performance. Service providers can provide consumers with more specific information regarding the actual performance they should expect or, at minimum, a better expectation of their likelihood of receiving a specific level of performance. The service consistency metric achieves the latter.

A suggestion was made by Jim Warner (UCSC) to mandate service providers to inform their customers about the actual speeds they are getting and to offer them a chance to upgrade their systems or to lower their costs. Mr. Johnston emphasized that the Commission is more concerned about the consumer getting accurate information before they make a buying decision..

Mr. David Young (Verizon) pointed out that Verizon currently offered four tiers of service and wondered if the FCC was suggesting that they increase their number of service tiers that they were offering to something like 60 tiers. Mr. Johnston explained that the FCC does not wish to be prescriptive, but that its main goal was to ensure that consumers get better and more accurate information and that it was up to the service providers to determine the best way to achieve that goal. Mr. Hany Fahmy (AT&T) asked the Commission whether the wireline MBA would be able to accommodate a large number of new tiers should the service providers create them. Mr. Johnston explained that while the FCC could accommodate more service tiers in its measurements the FCC had not yet come to any conclusion on how best to report results. Mr. Johnston reiterated that the FCC's goal was not so much about measuring the carrier performance results but about carriers providing more accurate information to their consumers. Mr. Johnston asked the carriers to consider this and provide the FCC with plans on possible solutions.

Following the discussion on "consistency of speed metrics" Sam Knows presented the collaborative with its efforts in determining the performance of YouTube video across carrier networks. In introducing this work, Mr. Johnston noted that in the three years of the MBA program, consumer habits had markedly changed. Video streaming accounted for nearly half the peak Internet traffic at the present. The speed tests measure only a dimension of this experience. As a result, the FCC had requested Samknows to investigate mechanisms to measure the video streaming experience of a consumer which is dependent on the QOS as specific interconnection points in the network associated with a content provider as well as the overall access speed of the network. SamKnows had, in conjunction with Aalto University in Finland, developed a method to measure streaming rate of YouTube videos. This method uses real You Tube content servers and performs tests on the most popular YouTube videos by rate adapting when a stall occurs. The measurement supports all the popular video formats such as MPEG4, WebM, DASH, FLV

and 3GPP. Details of the process were provided by SamKnows in its presentation.³ In its preliminary analysis SamKnows noted that there are likely step changes in the bitrate measured due to changes in the chosen set of popular YouTube video (these are determined every day) and their differing video encoding methods. However, over a period of weeks and months these step changes get smoothed out. This work was now stable and had effectively passed the proof of concept stage. It was therefore being scaled to a larger number of white boxes. In addition, extending this work to other content providers was being explored.

Mr. Razdan, Electronics Engineer EMCD/OET, asked the carriers to have a look at SamKnows proposed methodology and to provide FCC with any comments and feedback. The FCC, in conjunction with SamKnows, is also in talks with other video content providers (such as Netflix) to determine the best way to measure the performance of their streaming videos across carrier networks. The FCC will provide the collaborative with more information on these initiatives as it becomes available. On queries about reporting of the results, Mr. Razdan emphasized that the FCC would not be including any of these results in the 2015 report, and that it has not yet determined the best format to report these results. Once again, the FCC seeks continued feedback from participants on this.

Mr. Razdan concluded by thanking all the members for their participation and mentioned that the FCC plans to meet regularly to apprise the collaborative of their ongoing efforts.

Sincerely,

/s/ Rajender Razdan

Rajender Razdan, Electronics Engineer
Electromagnetic Compatibility Division/OET
Federal Communications Commission

³ Set of slides “Measuring Broadband America Program” by SamKnows.