



Federal Communications Commission
Washington, D.C. 20554

November 28, 2012

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

Re: Measuring Broadband American Program, GN Docket No. 12-264

Dear Ms. Dortch:

On November 28, 2012, representatives of broadband providers, public interest groups, companies, and other organizations met via conference call with Commission staff to discuss the Commission's 2012 broadband measurement and performance program in the Next-Generation Measurement Architecture Standardization and Outreach Group. The meeting focused on discussion of presentations made at the 85th Internet Engineering Task Force (IETF) meeting and future work items.¹

Mr. Walter Johnston, Chief Electromagnetic Compatibility Division (EMCD) began the meeting by introducing James Miller, Senior Attorney Advisor EMCD to discuss presentations made at the 85th Internet Engineering Task Force Meeting held in Atlanta in November. Mr. Miller noted that presentations made by FCC Chief Technology Officer (CTO), Henning Schulzrinne, and SamKnows CTO, Sam Crawford, at the technical plenary session on large scale measurement issues were well received and generated much positive discussion of the topics. Mr. Miller discussed the presentations he and Mr. Schulzrinne made at a Transport Area and "Bar BOF" meeting to discuss ongoing standards work in the area, and explained that the meeting demonstrated broad interest among attendees in the topic. Mr. Miller indicated that FCC staff was also pleased by the continuing progress of work in the IEEE and the Broadband Forum in this area.

Mr. Miller thanked participants for the contributions to the September 21, 2012 IETF Internet Draft (I-D) describing the proposed data communications requirements modeled on the software and hardware elements that support the Measuring Broadband America program,² and reported that various subject matter experts were actively discussing various issues raised in the I-D on the IETF Large Scale Measurement of Access Network Performance (LMAP) mailing list,³ including a call for greater clarity of what large scale measurement use cases exist and the nature of the drivers for those use cases.

¹ A list of attendees is attached to this filing in GN Docket No. 12-264.

² H. Schulzrinne, J. Miller, W. Johnston, Large-Scale Measurement of Broadband Performance: Use Cases, Architecture and Protocol Requirements, draft-schulzrinne-lmap-requirements-00, <http://tools.ietf.org/html/draft-schulzrinne-lmap-requirements-00> (Sept. 21, 2012).

³ *lmap -- Large Scale Measurement of Access network Performance*, available at <https://www.ietf.org/mailman/listinfo/lmap>.

Participants discussed the need for a clear description of the regulatory issues driving certain of the use cases in the future drafts, and that certain fundamental requirements for the results gathered from large-scale measurement platforms should support:

- Scalable data collection that supports statistical analysis at the regional and local level by supporting millions of measurement nodes;
- Performance metrics that can support sampling strategies and direct comparisons of broadband performance on an individual client instance and statistical basis across technology platforms and broadband providers; and
- Access to raw measurement data.

Participants also discussed the possible need to include in future drafts a fuller discussion of how standards in this area could alleviate limitations on the ability to scale measurement programs. Participants discussed that in some cases a measurement infrastructure and software clients might be developed and managed directly by a single entity, which might not require an independently available standard for control protocols between the various elements of a system. However, in many cases a single entity may not coordinate all components or only a few of the functions of a measurement system. Where no single entity exists to control and manage the technical elements, common control protocols across the solutions would permit the measurement boxes, measurement servers, data storage and processing elements to communicate using commonly understood protocols and according to predictable operational policies that would secure the integrity of the system and the data collected.

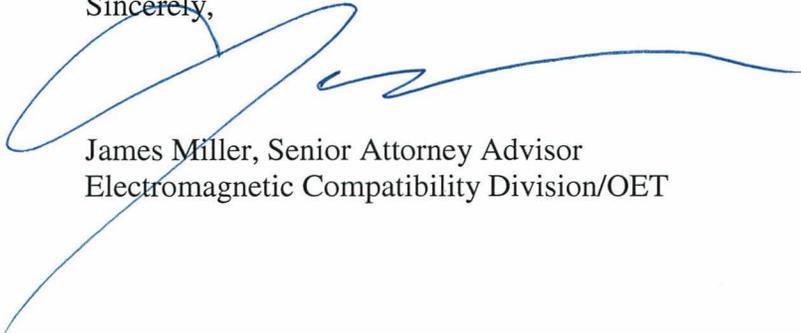
Participants identified two areas of ongoing work for focus in the coming meetings. First the drafting of a new charter statement describing the scope of a possible working group or the expansion of the existing charter of the IETF IP Performance Metrics (IPPM) working group was recommended. The charter statement would need to be submitted to the IETF by January 28, 2013 for consideration in the March 2013 IETF meeting to be held in Orlando, FL. Second, the participants discussed the need to draft a series of Internet Drafts describing the metrics performed in Measuring Broadband America program with functions articulating the use of the control protocols suggested by the September 21, 2012 draft.

Mr. Miller suggested that the working group charter might employ an hour-glass metaphor excluding from scope the methodology issues related to sampling and selection and administration of test configurations, which might include a variety of actors and drivers for data collection, as well as the actual implementations of metrics that are included in the charter of the IPPM. The charter might include in scope the elements in the middle of the hour-glass that might include the security and other considerations implicated in the definition of the control protocols discussed in the September 18, 2012 draft.

Participants discussed procedural issues related to the expansion of the scope of the existing IPPM working group and creation of new IETF working groups, noting that little change to a charter draft would be necessary in either case. Participants agreed to continue to discuss further substantive issues on the IETF draft LMAP) mailing list, but agreed that relevant drafts should also be circulated with members in the FCC mailing list.

Staff confirmed December 12, 2012 as the date for the next meeting and informed stakeholders that new schedulers for the 2013 meeting schedule for all Measuring Broadband America meetings would be announced soon on the same recurring three-week schedule.

Sincerely,

A handwritten signature in blue ink, consisting of a large, stylized initial 'J' followed by a series of loops and a long horizontal stroke.

James Miller, Senior Attorney Advisor
Electromagnetic Compatibility Division/OET

Attendees

Name	Organization
Ken Koh	Adtran
Michael Bugenhagen	Centurylink
Paul Diamond	Centurylink
Marc Linsner	Cisco
Henning Schulzrinne	FCC
James Miller	FCC
Walter Johnston	FCC
Shane Amante	Level3
Thomas Gideon	New America Foundation / M-Lab
Alex Salter	SamKnows
Jason Weil	Time-Warner Cable
Kitty O'Hara	Verizon