|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **itu-old** | INTERNATIONAL TELECOMMUNICATION UNION | | | | | | COM 12 – LS 128 – E |
| **TELECOMMUNICATION STANDARDIZATION SECTOR**  STUDY PERIOD 2013-2016 | | | |  | | |
| **English only**  **Original: English** | | |
| **Question(s):** | | 13, 14, 17/12 | | Munich, 20 October 2016 | | | |
| **Ref.: TD 1073 R1 (GEN/12)** | | | | | | | |
| **Source:** | | ITU-T Study Group 12 | | | | | |
| **Title:** | | LS -Summary of ITU-T Study Group 12 work on Streaming Media Quality | | | | | |
| **LIAISON STATEMENT** | | | | | | | | |
| **For action to:** | | | DASH-IF, CTA R4 WG20 Streaming Media Quality of Experience (QoE) | | | | | |
| **For comment to:** | | |  | | | | | |
| **For information to:** | | | VQEG, ITU-T SG 9, 3GPP SA4, | | | | | |
| **Approval:** | | | **ITU-T SG 12 WP2 & WP3 (Munich, 20 October 2016)** | | | | | |
| **Deadline:** | | | - | | | | | |
| **Contacts:** | | Al Morton, SG12 Vice Chair, Rapporteur Q17 AT&T USA | | | | Tel: +1 732 420 1571 Email: [acmorton@att.com](mailto:acmorton@att.com) | | |
|  | | Akira Takahashi, SG12 Vice Chair, Rapporteur Q13  NTT  Japan | | | | Tel: +81-422-59-7188  Email: [takahashi.akira@lab.ntt.co.jp](mailto:takahashi.akira@lab.ntt.co.jp) | | |
|  | | Jörgen Gustafsson, Co-Rapporteur Q14 Ericsson Research, L.M. Ericsson  Sweden | | | | Tel: +46 10 7143015  Email: [jorgen.gustafsson@ericsson.com](mailto:jorgen.gustafsson@ericsson.com) | | |
|  | | Alexander Raake, Co-Rapporteur Q14  Deutsche Telekom AG, Laboratories  Germany | | | | Tel: +49-30-835358462  Fax: +49-30-835358409  Email: [alexander.raake@telekom.de](mailto:alexander.raake@telekom.de) | | |
| Please don’t change the structure of this table, just insert the necessary information. | | | | | | | | |

ITU-T Study Group 12 has recognized that your organizations have begun (or intend to begin) work on metrics for streaming media delivery quality. We would like to draw your attention to the following existing ITU-T Recommendations and work in progress, which we believe will help to unify terms and definitions and coordinate future performance assessment work.

1. Definitions of QoE in Recommendation ITU-T P.10/G.100, Amendment 5. In the ITU-T definition, user opinion is an essential component of QoE, but more comprehensive QoE Assessments add many other QoE Influencing Factors.
2. Recommendation ITU-T G.1022, “Buffer Models for Media Streams on TCP Transport”, including definitions of Initial Buffering, Stalling, Re-buffering events (available in pre-published form).
3. Recommendation ITU-T P.1203, “Parametric bitstream-based quality assessment of progressive download and adaptive audiovisual streaming services over reliable transport” and supporting modules. These Recommendations were Consented recently and have begun the approval process. These Recommendations provide an overview, and a set of documents that describe model algorithms for monitoring the integral media session quality for TCP-type video streaming. The models comprise modules for short-term audio- and video-quality estimation and long-term aggregation.
4. Recommendation ITU-T G.1071, “Opinion model for network planning of video and audio streaming applications,” which provides models to estimate QoE of UDP-based video streaming applications, based on quality planning parameters, for high- and low-resolutions as Annexes A and B. In our October meeting, we further consented a new Annex C to extend the scope to H.265 (HEVC) codec.

We also believe that all organizations’ work in this area will be more efficient when the full breadth of work completed or in-progress is understood, and unnecessary overlaps can be avoided.

\_\_\_\_\_\_\_\_\_