INTERNATIONAL TELECOMMUNICATION UNION

TELECOMMUNICATION STANDARDIZATION SECTOR

STUDY PERIOD 2009-2012

COM 12 – LS 139 – E

English only

Original: English

Question(s):	13, 18/12	Geneva, 31 October - 9 November 2011

Ref. : TD 713 (GEN/12)

Source:	ITU-T SG 12 meeting (Geneva, 31 October - 9 November 2011)
Title:	LS to inform about the ongoing work concerning Telepresence QoE in ITU-T SG 12

LIAISON STATEMENT

For action to:

For comment to:

For information to: **IMTC, ATIS PRQC, IETF CLUE**

Approval: **Agreed to at the SG12 meeting**

Deadline:

Contact:	Gunilla Berndtsson Telefon AB – LM Ericsson Sweden	Tel: Fax: Email:	+46 10 714 72 37 +46 10 717 55 50 gunilla.berndtsson@ericsson.com
Contact:	Akira Takahashi NTT Japan	Tel: Fax: Email:	+81-422-59-7188 +81-422-59-5671 takahashi.akira@lab.ntt.co.jp

Please don't change the structure of this table, just insert the necessary information.

The intent of this LS is to inform about the ongoing activities in ITU-T Study Group 12 regarding Telepresence QoE, to avoid duplication of work.

There are two questions in SG 12 dealing with perceived quality of Telepresence, Q13/12 and Q18/12.

Question 18/12 – Conferencing and telemeeting assessment

A new question about conferencing and telemeeting assessment (Q18/12) was started in January 2011.

Motivation

In today's society, audio and audio-visual telemeetings and audio- and video-conferences are gaining in importance. The term telemeeting is used here instead of teleconference to emphasize that a meeting is often more flexible and interactive than a business conference. Such meetings are more and more common also in private usage scenarios, e.g. when families communicate over large distances.

If the perceived quality is good enough, such telemeetings can be used as a complement to face-to-face meetings, and travel time and cost can be reduced. In spite of the increased use of telemeeting systems, there is currently no standardized method to evaluate telemeeting quality, or to efficiently plan and lay out such telemeetings. Hence, there is a need to develop an agreed upon way of quantifying the perceptual quality of multi-party services that are conversational and interactive.

Telephony has traditionally been a point-to-point service, but a meeting is often a multipoint communication, where the participants can use different types of equipment to connect to the (virtual or real) meeting space, e.g. by fixed phone, mobile phone, PC, or videoconferencing equipment. To obtain a good evaluation of the telemeeting quality, the quality perceived by all participants in a conference needs to be assessed.

There are standardized subjective test methods for several components used in a telemeeting, such as speech, audio and video codecs, characterized by bit rate (fixed or variable), frame rate, resolution, noise cancellation, background noise, and synchronization and transmission impairments. Some recommendations on how to assess the interaction between these factors are available, too. In a telemeeting context, however, these factors need to be assessed in the light of multiple users connected via possibly asymmetric links.

Prioritized tasks

- Work has started to write a recommendation on how to subjectively quantify the quality of audio and audiovisual multiparty telemeetings, where the participants can have different types of connections to the meeting. There will be a draft recommendation for the next SG 12 meting in May 2012.
- The effects of delays in multiparty telemeetings are presently studied, for example how different delays for different participants affect the meeting quality. Suitable test tasks for evaluation methods of interactive multiparty audio and audiovisual telemeetings are developed.
- A recommendation on how to evaluate spatial audio for multiparty conferencing will also be written.

Question 13/12 – QoE, QoS and performance requirements and assessment methods for multimedia including IPTV

Motivation

A major challenge for emerging IP-based networks is to provide adequate Quality of Experience (QoE) and Quality of Service (QoS) for new multimedia services and applications. As an example, IPTV is a rapidly emerging new multimedia service. A key factor in achieving commercial success for IPTV and also Home Networking Services will be to ensure that end-users will be satisfied with the performance. These services are inherently multi-media, incorporating audio, video, text, graphics, and interactive control functions, and performance requirements and associated measurement methodologies for each of these aspects need to be defined.

The following major Recommendations, in force at the time of approval of this Question, fall under its responsibility:

G.1010, G.1030, G.1040, G.1050, G.1070, G.1080, G.1081, G.1082, Y.1562, P.1010

Questions

Study items to be considered include, but are not limited to:

- Identify end-user performance expectations and associated metrics for audio, video, text, graphics quality and control functionality
- Define the key performance parameters and values required to satisfy end-user expectations.
- Determine how these requirements can be related to the underlying network transport level.
- Identify simple analysis techniques for estimating end to end performance for multimedia applications
- Identify QoS/QoE monitoring methodologies for multimedia services
- Identify sets of KPIs and QoS metrics for different services and investigate the relationship with QoE
- Investigate techniques and methods to perform complex data processing and to make consistent and significant decisions for quality management and assurance
- Multimedia performance considerations for IP gateways
- Considerations on how to help measure and mitigate climate change.

Tasks

Tasks include, but are not limited to:

- Development of new Recommendations providing guidance on end-user performance expectations for multimedia applications, particularly IPTV and Home Network
- Development of new Recommendations on simplified planning models for estimating end to end multimedia performance
- Development of new Recommendations providing guidance on performance monitoring methods for multimedia applications, particularly IPTV and Home Network
- Development of new Recommendations on framework of quality management and assurance
- Development of new Recommendations providing guidance on QoE evaluation/measurement
- Revisions of Recommendations G.1010, G.1030, G.1040, G.1050, G.1070, G.1080, G.1081, G.1082, Y.1562 and P.1010 as necessary

SG 12 Work Program

An up-to-date status of work under these questions is contained in the SG 12 Work Program http://www.itu.int/ITU-T/workprog/wp_search.aspx?isn_sp=545&isn_sg=551