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**Question(s):** 5/16

Geneva, 19- 30 July 2010

**LIAISON STATEMENT****Source:** ITU-T SG 16**Title:** LS to All ITU-T SGs, TSAG, ITU-R SG 6, ITU-D SG2, IETF RAI, ISO/IEC JTC 1/SC 29, IMTC, JCA-ICT&CC, JCA-AHF on approval of a new Question on telepresence systems

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**LIAISON STATEMENT****For action to:** -**For comment to:** -**For information to:** All ITU-T SGs, TSAG, ITU-R SG 6, ITU-D SG2, IETF RAI, ISO/IEC JTC 1/SC 29, IMTC, JCA-ICT&CC, JCA-AHF**Approval:** ITU-T SG 16 meeting (Geneva, 19-30 July 2010)**Deadline:** N/A

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At its 19-30 July 2010 meeting, ITU-T Study Group 16 agreed to the creation of a new Question entitled “Telepresence systems” as per WTSA Res. 1, Clause 7.1.8, with support from many members.

We welcome any information that you might share with us that is related to this topic, and look forward to collaborating with you on the subject.

**Annex A****New ITU-T Study Group 16 Question 5/16: Telepresence systems****1. Motivation**

Telepresence represents an important evolution of the videoconferencing market. This trend is expected to accelerate, as mainstream video applications begin to offer telepresence features. Many products exist today that, although they are based on IETF SIP and ITU-T H.323 protocols, lack interoperability due to proprietary extensions needed to these base protocols to offer a user-rich experience.

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The increased penetration of broadband communications and higher user awareness of video applications, coupled with financial and environmental gains brought by remote collaboration tools have brought a boost to applications such as telepresence. This makes it important that standardized solutions be developed to ensure multi-vendor interoperability on a global basis.

## **2. Question**

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

- Definition and scope of telepresence systems
- Functions and service requirements for interoperable telepresence systems
- Standardizing the means for full interworking between telepresence systems, including means facilitating the coherent presentation of multiple audio and video streams – allowing remote participants to be rendered at their true size for their apparent distance, maintaining correct eye contact, gesticular cues, and simultaneously providing spatial audio that is consistent with the video presentation, as well as taking into account the meeting environment to provide a more immersive experience.
- Standardizing the means for interworking between current telepresence systems and other systems, including the legacy telephone network and advanced multimedia systems, through additions to ITU-T H.246 and other Recommendations as necessary.
- Considerations on how to further enhance telepresence systems to mitigate negative impact on climate change and to encourage a positive impact reducing greenhouse gas (GHG) emissions.

## **3. Tasks**

Tasks include but are not limited to:

- Define services and functions to support interoperability of current generation telepresence systems using existing protocols such as ITU-T H.323 and SIP.
- Identify modification and/or extensions needed in existing protocols to support telepresence, in coordination with other standardization bodies, forums and consortia, as needed.
- Modify and/or extend existing protocols under the ITU-T SG 16 responsibility to enable interoperable telepresence systems (in particular, Recommendations of the ITU-T H.300 series).
- Identify methods for exchange of meeting environment information in order to allow adaptation between unlike telepresence system environments.
- Provide guidelines to achieve the required user experience for telepresence systems (such as methods to achieve eye contact, same lighting environments in separate rooms, audio levels, and echo cancellation).
- Identify requirements for media codecs, taking into account needs for scalability, multiple views, multiple audio channels, and mixing of media streams including efficient compressed digital to compressed digital processing.
- Enable interoperable telecoms/ICT accessibility features in telepresence systems.
- Identify requirements towards second-generation telepresence systems.
- Consider the role of control systems in telepresence systems.

## 4. Relationships

### Recommendations:

H. series and relevant F/G/T-series

### Questions:

Q1/16 (*Multimedia systems and terminals*), Q2/16 (*H.323 systems*), Q3/16 (*Multimedia Gateways*), Q4/16 (*QoS*), Q6/16 (*Visual Coding*), Q7/16 (*Systems and coordination aspects of media coding*), Q10/16 (*Speech and audio coding and related software tools*), Q12/16 (*AMS*), Q13/16 (*IPTV*), Q16/16 (*Speech enhancement functions in signal processing network equipment*), Q18/16 (*Interaction aspects of signal processing network equipment*), Q22/16 (*Multimedia applications and services*), Q26/16 (*Accessibility to Multimedia Systems and Services*)

### Study Groups:

- ITU-T Study Groups: 5 (*Environment and Climate Change*), 9 (*cable, video quality*), 11 (*signalling*), 12 (*QoS, QoE, Quality assessment methodologies*), 13 (*NGN, future networks*), 17 (*Security, languages*)
- ITU-R Study Group 6 (*Broadcasting*)
- ITU-D Study Group 2

### Standardization bodies, forums and consortia:

- ISO/IEC JTC 1/SC 29 "*Coding of audio, picture, multimedia and hypermedia information*"
  - International Multimedia Teleconferencing Consortium (IMTC) for interoperability aspects and enhancements to existing Recommendations
  - IETF Real-time Applications and Infrastructure (RAI) for IETF-defined protocols
  - Unified Communications Interoperability Forum (UCIF) for interoperability aspects between enterprises, service providers, and consumer clouds.
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