**Source: Samsung Electronics Co., Ltd.**

**Title: [FS\_5GSTAR] pCR on clause 6.5: Editor’s updates on conversational**

**Agenda Item: 10.9**

**Document for: Discussion and Agreement**

1. **Proposed text**

\*\*\* Change #1 \*\*\*

### 6.5.4 Instantiation #1: MTSI-based architecture extension



**Figure 6.5.4-3: AR-DCMTSI client to AR-DCMTSI client call establishment (STAR UE)**

Assumptions:

- AR immersive media is sent over RTP/UDP/IP.

- AR immersive media is negotiated and configured using SDP.

- A data channel application provides rich user experiences by utilizing both user’s underlying scene and pose of objects representing users in the scene.

Procedures:

1-14. Same as the procedures for AR-MTSI client to AR-MTSI client call establishment except that the SDP contains a data channel media description for the bootstrap data channel.

15. The STAR UE retrieve a data channel application through the bootstrap data channel.

16. Any additional data channels created and used by the data channel application itself are requested.

17. The AR-DCMTSI client initiate SIP re-INVITE request, containing an updated SDP offer to establish those data channels.

18. The data channels for the data channel application has been established.

19. The established data channel may be used by the data channel application JavaScript(s).

\*\*\* End of Change #1 \*\*\*

\*\*\* Change #2 \*\*\*

### 6.5.6 Content formats and codecs

Based on the use cases, the following formats, codecs, and packaging formats are of relevance for AR conversational:

* General

> 2D Video Formats and video compression codecs

> Regular Audio Formats and audio compression codecs

- In addition, for downlink

> Immersive media 3D Formats such as static and dynamic point clouds or meshes

> Spatial Audio Formats

> Decoding tools for such formats

> Composed Scene Graph and Scene Description

- In addition, for uplink

> Immersive media 2D Video Formats with depth

> Immersive media 3D Formats such as static and dynamic point clouds or meshes

> Encoding tools for such formats

> Streaming of sensor information (e.g., gyroscope, accelerometer) as well as pose information

NOTE: Details on uplink delivery of immersive media 3D formats are for further study, to take into account the specific latency requirements of each conversational use case.

NOTE: It is not necessary to support all media formats listed, depending on the device type and/or application.

6.5.7 Summary of AR conversational instantiations

Table 6.5.x-1 shows the list of potential instantiations and how they may be composed from each building block described in clause 6.5.1.

**Table 6.5.x-1: Summary of each instantiation for AR conversational services**

|  |  |  |
| --- | --- | --- |
| **Building Block** | **Instantiation#1:****MTSI extension** | **Instantiation#2:****DCMTSI extension** |
| Call setup and control | Conventional MTSI | Conventional MTSI with Data Channel |
| Media Formats | ~~as specified in clause 6.2.5~~as specified in clause 6.5.6 | ~~as specified in clause 6.2.5~~as specified in clause 6.5.6 |
| Delivery | RTP/UDP/IP, SCTP/DTLS/UDP/IP | RTP/UDP/IP, SCTP/DTLS/UDP/IP |
| 5G system integration | Need policy exchange for AR-(DC)MTSI client (P-CSCF and PCF) | Need policy exchange for EDGAR-DCMTSI client (P-CSCF and PCF) |

\*\*\* End of Change #2 \*\*\*

1. **Proposal**

We propose to include the text in section 1 of this document as a pCR to section 6.5 of TR 26.998.