**Agenda item:** 10.8

**Source:** Qualcomm Inc.

**Title: [AvCall-MED] SDP Negotiation of Avatars**

**Document for** Discussion andAgreement

# Introduction

In this contribution, we propose text for the negotiation of avatar usage in AR Calls.

# Proposed Changes

7.3 SDP Negotiation and Signaling of Avatars

An AR-MTSI client supporting avatar-based communication shall support negotiation of avatar capabilities and animation parameters through SDP.

If avatars are used in a session, the session setup shall determine:

* Avatar model reference and format
* Supported animation frameworks
* Data channel configuration for animation parameters
* Fallback mechanisms for UEs without avatar rendering capabilities

The avatar base model of the user shall be stored in the BAR prior to session establishment.

To indicate support for avatar-based communication, an AR-MTSI client shall include the feature tag "+sip.3gpp.avatar-support" in the Contact header field of the SIP REGISTER request.

Additional parameters may be included:

* max-avatar-support: indicates the maximum number of simultaneous avatars the device can handle

An AR-MTSI client supporting avatars shall use data channels as specified in [2] clause 6.2.10 for transmission of animation parameters. The sub-protocol for avatar animation data channels shall be "3gpp.avatar-animation".

An AR-MTSI client offering avatar-based communication shall include in the SDP offer:

1. An application data channel media description for avatar animation data:

*m=application [port] UDP/DTLS/SCTP webrtc-datachannel*

1. The dcmap attribute for the application specific data channel for avatar data where the subprotocol shall be set to “3gpp.avatar-animation”
2. The 3gpp-req-app that signals the avatar application shall be set to "avatar" with the 3gpp-req-app-opt including the following parameters:

Table X: SDP parameters for avatar negotiation

| **Parameter** | **Usage** |
| --- | --- |
| avatar-ref | Provides the reference to avatar model (e.g., "bar://secure-temp-id"). This reference may be a temporary identifier of the selected base avatar model. |
| avatar-animation-frameworks | Comma-separated list of supported animation frameworks |
|  |  |
|  |  |

Example avatar attributes in SDP offer:

|  |
| --- |
| a=dcmap:1000 subprotocol="3gpp.avatar-animation"a=3gpp-req-app: "avatar";avatar-ref="bar://29324384edf234abc";avatar-animation-frameworks="org.khronos.openxr" |

An AR-MTSI client receiving an SDP offer for avatar-based communication shall:

1. Examine the avatar capabilities in the offer
2. If avatar rendering is supported:
	* Fetch the avatar model using the provided reference from the BAR
	* Verify compatibility with at least one offered animation framework
	* Accept the data channel for animation parameters
3. If avatar rendering is not supported:
	* The session may be rejected, or
	* Network-based rendering may be invoked

# An MTSI client accepting avatar-based communication SHALL select at least one animation framework from the offered list that it supports. If no common framework is supported, the avatar media SHALL be rejected.Proposal

We propose to agree the content of section 2 and integrate it into the base CR.