**3GPPSA4-e (AH) Video SWG 117-e S4-220135**

**E-meeting, 14-23 February 2022**

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| *CR-Form-v12.0* | | | | | | | | |
| **Pseudo CHANGE REQUEST** | | | | | | | | |
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|  | **26**.**998** | **CR** |  | **rev** | **-** | **Current version:** | **1.1.2** |  |
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| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network |  |

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| ***Title:*** | **[FS\_5GSTAR] pCR on clause 8 of TR 26.998** | | | | | | | | | |
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| ***Source to WG:*** | Samsung Electronics, Co. Ltd., Qualcomm Inc. | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | FS\_5GSTAR | | | | |  | ***Date:*** | | | today |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | 17 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) Rel-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
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| ***Reason for change:*** | |  | | | | | | | | |
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| ***Summary of change:*** | |  | | | | | | | | |
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| ***Consequences if not approved:*** | |  | | | | | | | | |
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| ***Clauses affected:*** | |  | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  |  | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  |  | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  |  | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
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| ***This CR's revision history:*** | |  | | | | | | | | |

**===== CHANGE =====**

## 8.5 Media Capabilities for Augmented Reality Glasses (MeCAR)

In TR 26.928 [2] and this report, XR and AR device architectures have been developed and details on relevant media formats are documented, for example in, clause 4.4. In particular, it is identified that for design AR glasses, implementation and operational requirements are significantly more stringent than for smart phones (see clause 4.5.2 and clause 7). As an example, consuming media on AR glasses requires functionalities to address very low power consumption, low area size, low latency options, new formats, operation of multiple decoders in parallel, etc.

To support basic interoperability for AR applications in context of 5G System based delivery, a set of well-defined media capabilities are essential. These capabilities may be used in different services and applications and hence service-independent capabilities are relevant. The media capabilities typically address three main scenarios:

- Support of basic media services on such glasses with simple rendering functionalities

- Support of split-rendering, e.g. a pre-rendering of eye buffers is carried out in the cloud/edge

- Support of sensor and device data streaming to the network in order to support network-based processing or device sensor information

Media functions are relevant for the Media Access Function as defined in clause 4.2.6. The media capabilities are importantly driven by realistic deployment options addressing device capabilities, as documented in clause 4.5.2, as well as the relevant KPIs.

In particular, the following objectives need to be considered:

- Define a reference terminal architecture for AR devices

- Define at least one AR device category that addresses the constraints of an EDGAR-type AR glass

Note: Additional device categories may be defined, but with lower priority

- For each AR device category

> Define media types and formats, including scene description, audio, 3D/2D graphics and video, as well as sensor information and metadata about user and environment.

> Define decoding capabilities, including support for multiple parallel decoders

> Define encoding capabilities

> Define security aspects related to media capabilities

- Enabling signalling (e.g., SDP and MPD) of AR media for generic capability exchange mechanism

- Define AR media metadata to aid Scene Manager to derive EAS KPIs for provisioning of edge/cloud resources

- Define relevant KPIs and QoE Metrics for AR media

- Encapsulation into RTP and ISOBMFF/CMAF

The media capabilities may be referenced and added to 3GPP Media service enablers and/or 3GPP service specifications such as 5G Media Streaming or MTSI.