**3GPPSA4#120-e S4-220955**

**E-meeting, 17 – 26 August 2022**

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| *CR-Form-v12.0* |
| **PSEUDO CHANGE REQUEST** |
|  |
|  | **26**.**857** | **CR** | pseudo | **rev** | **-** | **Current version:** | **0.3.1** |  |
|  |
| *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\_5G\_MSE] Example 5GMS Media Player** |
|  |  |
| ***Source to WG:*** | Qualcomm Incorporated |
| ***Source to TSG:*** |  |
|  |  |
| ***Work item code:*** | FS\_5G\_MSE |  | ***Date:*** | 11/08/2022 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-18  |
|  | *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 canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases: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)* *Rel-17 (Release 17)* *Rel-18 (Release 18)* |
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| ***Reason for change:*** |  |
|  |  |
| ***Summary of change:*** |  |
|  |  |
| ***Consequences if not approved:*** |  |
|  |  |
| ***Clauses affected:*** |  |
|  |  |
|  | **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:*** | This pCR assumes that S4-220954 is agreed |
|  |  |
| ***This CR's revision history:*** |  |

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

### 4.2.3 Media Player in 5GMS

Downlink 5G Media Streaming specifies the use of segment formats that are based on the Common Media Application Format (CMAF) in ISO/IEC 23000-19 [G]. By using this format, 5G Media Streaming is compatible with a broad set of segment-based streaming protocols including Dynamic Streaming over HTTP (DASH) and HTTP Live Streaming (HLS). For example, ISO/IEC 23009-1 [H] defines a detailed DASH profile for delivering CMAF content within a DASH Media Presentation using a converged format for segmented media content.



Figure 4.2.3-1: Media Playback in 5G Media Downlink Streaming Architecture
(reproduced from 3GPP TS 26.511 [F])

According to TS 26.511 [F], TS 26.512 [E] and Figure 4.2.3-1 above, the Media Player is further decomposed into an Access Client and a Media Playback Platform. Several APIs are identified for the Media Player:

- *M4d (Media Streaming APIs):* APIs exposed by a 5GMSd AS to the Media Player to stream media content.

*- M6d (UE Media Session Handling APIs):* APIs exposed by a Media Session Handler to the Media Player for client-internal communication and exposed to the 5GMSd-Aware Application enabling it to make use of 5GMS functions.

*- M7d (UE Media Player APIs):* APIs exposed by a Media Player to the 5GMSd-Aware Application and Media Session Handler to make use of the Media Player.

- A set of internal *Media Player APIs* that deals with providing accessed data to the Media Playback Platform. Thesefollow

Most relevant in the discussion is the M7d API provided by the Access Client (see clause 13 of TS 26.512 [E]) defining:

1) Methods to interact with the Access Client of the Media Player,

2) Notification and Error Events sent to the Media Session Handler and 5GMSd-Aware Application,

3) Configuration and Settings methods,

4) Status Information.

The initial API has largely been designed based on the dash.js API documented here: <http://cdn.dashjs.org/latest/jsdoc>.

For the Media Player, different states are defined, depending on actions received from any of the APIs.