**3GPP TSG-WG SA4 Meeting #124**

**Berlin, DE, 22nd – 26th May 2023** *(revision of S4-230799)*

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| *CR-Form-v12.2* | | | | | | | | |
| **PSEUDO CHANGE REQUEST** | | | | | | | | |
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|  | **26.565** | **CR** |  | **rev** |  | **Current version:** | **0.4.0** |  |
|  | | | | | | | | |
| *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 | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | pCR on signaling for SR session control | | | | | | | | | |
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| ***Source to WG:*** | Qualcomm Inc. | | | | | | | | | |
| ***Source to TSG:*** | S4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | SR\_MSE | | | | |  | ***Date:*** | | | 9 May 2023 |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***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 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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
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| ***Reason for change:*** | | Given the progress in iRTCW, this contribution provides an update to the session setup signaling protocol with a reference to TS26.113. | | | | | | | | |
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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:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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| **1st Change** |

## 8.1 Split Rendering Signalling Protocols

Both SRC and SRS shall support the SWAP protocol as defined in TS26.113 clause 6.2.

The SWAP protocol allows for the definition of application-specific messages.

For Split Rendering, the following application-specific messages shall be supported:

* The configuration message carries the split rendering configuration information from the SRC to the SRS. It shall be identified by the type “**urn:3gpp:sr-mse:sr-configuration**” and the object shall be formatted according to clause 8.4.2.2.
* The rendering description message carries the description of the split rendered media from the SRS to SRC. It shall be identified by the type “**urn:3gpp:sr-mse:sr-description**” and the object shall be formatted according to clause 8.4.3. The rendering description message provides the semantics of the media that is delivered over WebRTC from the SRS to SRC.

The SWAP message exchange for the establishment of a split rendering session is depicted by the following call flow diagram:



Pre-requisites:

* The SRC has discovered the identifier of the SRS that it will use for its split rendering session.
* The SRC has retrieved the address of the SWAP server as part of the configuration.

The stpes are as follows:

1. The SRC sends the configuration message as an application-specific SWAP message to the SWAP server. It provides the identifier of the target SRS as a matching criteria.
2. The SWAP server uses the provided matching criteria to locate the SRS.
3. The SWAP server forwards the configuration message to the target SRS.
4. The SWAP server confirms the successful forwarding of the message to the SRC
5. The SRS processes the SR configuration message. It may for instance verify application and resource availablity, launch the application, configure its rendering, and create a rendering description.
6. The SRS sends the rendering description message as an application-specific SWAP message to the SWAP server.
7. The SWAP server forwards the message to the SRC.
8. The SWAP server acknowledges the successful forwarding of the message to the SRS.
9. The SRC processes the rendering description and identifies the required data channel and media sessions.
10. SRC sends a connect message with the SDP offer to the SRS. The offer reflects the negotiated media and data channel streams.
11. The SWAP server acknowledges the forwarding of the message to the SRS
12. The SRS replies with an accept message that includes the SDP answer. The SDP answer reflects the information that was provided in the split rendering description.
13. The SWAP server acknowledges the forwarding of the message to the SRC