**3GPP TSG-CT WG1 Meeting #137-eC1-22XXXX**

**E-Meeting, 18th – 26th August 2022**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.501** | **CR** | **4278** | **rev** | **3** | **Current version:** | **17.7.1** |  |
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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 | **x** | Radio Access Network |  | Core Network | **x** |

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| ***Title:*** | Payload type in general 5GSM service-level AA procedure | | | | | | | | | |
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| ***Source to WG:*** | Huawei, HiSilicon, Qualcomm Incorporated, OPPO, Lenovo | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | ID\_UAS | | | | |  | ***Date:*** | | | 2022-08-11 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
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| ***Reason for change:*** | | About adding the service-level-AA payload type information in the general 5GSM service-level AA procedure, the disc paper C1-223483 has provided following observations:  **Observation #1. To introduce the service-level-AA payload type together with the service-level-AA payload in the Service-level-AA container IE is to provide a future-proof mechanism to accommodate future vertical services.**  **Observation #2. To introduce the service-level-AA payload type together with the service-level-AA payload in the Service-level-AA container IE is applicable to all 5GSM procedures including the general 5GSM service-level AA procedure.**  **Observation #3. In multiple valid scenarios (including the first AA purpose during the PDU session establishment, re-AA after a PDU session established, single service-level AA procedure initiated for one service or two service-level AA procedures initiated for two services), both the SMF and the UE cannot know the ongoing service-level AA procedure(s) is for which services and then how to forward the received service-level-AA payload.**  **Observation #4. There is no forward compatability issue for the SMF to set the service-level-AA payload type information together with its associated service-level-AA payload information in the 5GSM service-level AA procedure.**  Based on the discussion and above observations, following proposals were provided:  **Proposal #1: It proposes to provide the service-level-AA payload type information together with its associated service-level-AA payload information during the 5GSM service-level AA procedure as other 5GSM procedures done.**  **Proposal #2: It proposes the SMF and the UE NAS to set the service-level-AA payload type information for its associated service-level-AA payload information during the 5GSM service-level AA procedure as other 5GSM procedures done.** | | | | | | | | |
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| ***Summary of change:*** | | It proposes to specify that in case of UUAA, the network and the UE shall also set the service-level-AA payload type information duing the 5GSM service-level AA procedure. | | | | | | | | |
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| ***Consequences if not approved:*** | | In case of UUAA, the service-level-AA payload type information is missing in the 5GSM service-level AA procedure. | | | | | | | | |
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| ***Clauses affected:*** | | 6.3.1A.2, 6.3.1A.3 | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
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| ***This CR's revision history:*** | | Rev#1 was postponed in CT1#136e meeting.  Rev#2 is the re-submission of Rev#1.  Rev#3: change “may” to “shall” at both the network and the UE sides. | | | | | | | | |

\* \* \* First Change \* \* \* \*

6.3.1A.2 Service-level authentication and authorization procedure initiation

In order to initiate the service-level authentication and authorization procedure, the SMF shall create a SERVICE-LEVEL AUTHENTICATION COMMAND message.

The SMF shall set the PTI IE of the SERVICE-LEVEL AUTHENTICATION COMMAND message to "No procedure transaction identity assigned".

The SMF shall set the service-level-AA payload in the Service-level-AA container IE of the SERVICE-LEVEL AUTHENTICATION COMMAND message to the service-level-AA payload provided by the DN via the NEF. In case of UUAA, the SMF shall also set the service-level-AA payload type in the Service-level-AA container IE of the SERVICE-LEVEL AUTHENTICATION COMMAND message to "UUAA payload".

NOTE : In case of UUAA, the service-level-AA payload is provided by the DN via the UAS-NF.

The SMF shall send the SERVICE-LEVEL AUTHENTICATION COMMAND message, and the SMF shall start timer T3xyz (see example in figure 6.3.1A.1-1).

Editor's Note: T3xyz will be further specified.

Upon receipt of a SERVICE-LEVEL AUTHENTICATION COMMAND message and a PDU session ID, using the NAS transport procedure as specified in subclause 5.4.5, the UE passes to the upper layers the service-level-AA container contents of the Service-level-AA container IE of the SERVICE-LEVEL AUTHENTICATION COMMAND message. Apart from this action, the service-level authentication and authorization procedure initiated by the DN is transparent to the 5GSM layer of the UE.

\* \* \* Next Change \* \* \* \*

6.3.1A.3 Service-level authentication and authorization procedure accepted by the UE

When the upper layers provide a service-level-AA payload, the UE shall create a SERVICE-LEVEL AUTHENTICATION COMPLETE message and set the service-level-AA payload of the Service-level-AA container IE to the service-level-AA payload received from the upper layers. In case of UUAA, the UE shall also set the service-level-AA payload type in the Service-level-AA container IE of the SERVICE-LEVEL AUTHENTICATION COMPLETE message to "UUAA payload".

The UE shall transport the SERVICE-LEVEL AUTHENTICATION COMPLETE message and the PDU session ID, using the NAS transport procedure as specified in subclause 5.4.5. Apart from this action, the service-level authentication and authorization procedure initiated by the DN is transparent to the 5GSM layer of the UE.

Upon receipt of a SERVICE-LEVEL AUTHENTICATION COMPLETE message, the SMF shall stop timer T3594 and provides the service-level-AA payload received in the Service-level-AA container IE of the SERVICE-LEVEL AUTHENTICATION COMPLETE message to the DN.

\* \* \* End of Change \* \* \* \*