**3GPP TSG-CT WG1 Meeting #130-eC1-213337**

**Electronic meeting, 20 – 28 May 2021**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.501** | **CR** | **3294** | **rev** | **-** | **Current version:** | **17.2.1** |  |
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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:*** | NSSAA and de-registration procedures collision | | | | | | | | | | |
|  |  | | | | | | | | | | |
| ***Source to WG:*** | Huawei, HiSilicon | | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | | |
|  |  | | | | | | | | | | |
| ***Work item code:*** | 5GProtoc17, eNS | | | | | |  | ***Date:*** | | | 2021-05-13 |
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| ***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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
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| ***Reason for change:*** | | | For the NSSAA and de-registration procedures collision scenario, there are two cases as shown in Fig.1 and Fig.2 respectively.    [Figure 1]    [Figure 2]   * UE shall process the de-registration procedure only in Fig.1 case, and proceed with both de-registration and NSSAA procedure in Fig.2 case. See the following text in clause 5.4.7.2.4 of TS 24.501.   *If the UE receives NETWORK SLICE-SPECIFIC AUTHENTICATION COMMAND message after sending a DEREGISTRATION REQUEST message and the access type included in the DEREGISTRATION REQUEST message is the same as the access in which the NETWORK SLICE-SPECIFIC AUTHENTICATION COMMAND message is received, then the UE shall ignore the NETWORK SLICE-SPECIFIC AUTHENTICATION COMMAND message and proceed with the de-registration procedure. Otherwise, the UE shall proceed with both procedures.*   * NW’s behaviour in Fig.1 case is un-specified, and the NW shall progress the de-registration procedure only in Fig.2 case. See the following text in clause 5.4.7.2.3 of TS 24.501.   *If the network receives a DEREGISTRATION REQUEST message before the ongoing network slice-specific authentication and authorization procedure has been completed and the access type included in the DEREGISTRATION REQUEST message is the same as the one for which the network slice-specific authentication and authorization procedure is ongoing, the network shall abort the network slice-specific authentication and authorization procedure and shall progress the UE-initiated de-registration procedure. The AMF may initiate the network slice-specific authentication and authorization procedure for the S-NSSAI which is completed as a failure, if available.*  It is proposed to clarify that NW shall abort the NSSAA procedure procedure but only proceed with the de-registration procedure in Fig.1 case, since on UE side, the NSSAA command will be ignored. | | | | | | | | |
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| ***Summary of change:*** | | Clarify that NW shall abort the NSSAA procedure if the de-registration procedure is initiated | | | | | | | | | |
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| ***Consequences if not approved:*** | | Un-specified NW behaviour | | | | | | | | | |
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| ***Clauses affected:*** | | 5.4.7.2.3 | | | | | | | | | |
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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:*** | |  | | | | | | | | | |
|  | |  | | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | | |

\*\*\*\*\* start of 1st change \*\*\*\*\*

##### 5.4.7.2.3 Abnormal cases on the network side

The following abnormal cases can be identified:

a) T3575 expiry

The AMF shall, on the first expiry of the timer T3575, retransmit the NETWORK SLICE-SPECIFIC AUTHENTICATION COMMAND message and shall reset and start timer T3575. This retransmission is repeated four times, i.e. on the fifth expiry of timer T3575, the AMF shall abort the network slice-specific authentication and authorization procedure for the S-NSSAI. The AMF shall consider that the network slice-specific authentication and authorization procedure for the S-NSSAI is completed as a failure.

b) Lower layers indication of non-delivered NAS PDU due to handover

If the NETWORK SLICE-SPECIFIC AUTHENTICATION COMMAND message could not be delivered due to an intra AMF handover and the target TAI is included in the TAI list, then upon successful completion of the intra AMF handover the AMF shall retransmit the NETWORK SLICE-SPECIFIC AUTHENTICATION COMMAND message. If a failure of handover procedure is reported by the lower layer and the N1 NAS signalling connection exists, the AMF shall retransmit the NETWORK SLICE-SPECIFIC AUTHENTICATION COMMAND message.

c) Network slice-specific authentication and authorization procedure and de-registration procedure collision

If the network receives a DEREGISTRATION REQUEST message before the ongoing network slice-specific authentication and authorization procedure has been completed and the access type included in the DEREGISTRATION REQUEST message is the same as the one for which the network slice-specific authentication and authorization procedure is ongoing, the network shall abort the network slice-specific authentication and authorization procedure and shall progress the UE-initiated de-registration procedure. The AMF may initiate the network slice-specific authentication and authorization procedure for the S-NSSAI which is completed as a failure, if available. Otherwise, the network shall abort the network slice-specific authentication and authorization procedure and shall progress the UE-initiated de-registration procedure.

\*\*\*\*\* end of 1st change \*\*\*\*\*