**3GPP TSG-CT WG1 Meeting #130-eC1-21aabb**

**Electronic meeting, 20-28 May 2021 was C1-213416**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.501** | **CR** | **3329** | **rev** | **1** | **Current version:** | **17.2.1** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **x** | Radio Access Network |  | Core Network |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Transmission failure handling for NETWORK SLICE-SPECIFIC AUTHENTICATION COMPLETE | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | MediaTek Inc. | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GProtoc17 | | | | |  | ***Date:*** | | | 2021-05-25 |
|  |  | | | |  | |  | | |  |
| ***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)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | There are some inconsistency between stage2 and stage3.  In 23.502 sc. 4.2.9.1 "General" for "Network Slice-Specific Authentication and Authorization procedure"  "This procedure is triggered by the AMF during a Registration procedure---"  In 24.501 sc. 4.6.2.4:  The network slice-specific authentication and authorization procedure shall not be performed unless:  the initial registration procedure or the mobility and periodic registration update procedure has been completed.  In 24.501 abnormal case, specified in sc. 5.4.7.2.4, defines  a) Transmission failure of the NETWORK SLICE-SPECIFIC AUTHENTICATION COMPLETE message with TAI change from lower layers, it's implementation-specific how to re-run the ongoing procedure that triggered the network slice-specific authentication and authorization procedure.".  due to inconsistency between stage2 and stage3 specs, it's not clear if the NSSAA procedure can be triggered during the registration procedure or after the registration procedure is completed.  NSSAA is triggered by the AMF sending NSSAA COMMAND. It seems that the network may allow some of the S-NSSAIs at completion of the registration procedure (allowed NSSAI) while some of the requested S-NSSAIs are still pending the completion of the NSSAA procedure.  It seems that result of the NSSAA procedure is independent from the completion of the Registration procedure and the UE is not allowed to request connectivity to S-NSSAIs that are currently pending the NSSAA completion.  As a conclusion, as an NSSAA procedure is an independent common procedure that cannot be directly linked to an ongoing registration or service request procedure, there cannot be a requirement for the UE to re-run a procedure that triggered the NSSAA procedure.  If the NSSAA procedure is ongoing parallel with an ongoing registration procedure and the UE has a reason to re-initiate the registration procedure (e.g new TAI from lower layers), the UE shall re-initiate the registration procedure. Otherwise it's sufficient the AMF to trigger retransmission of NETWORK SLICE-SPECIFIC AUTHENTICATION COMMAND message at expiry of T3575. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Abnormal cases a) modified and b) removed. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The UE re-run registration procedure during NSSAA is ongoing and the UE is not allowed to request connectivity to network slices that it is willing to use and requested in the previous registration request. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.4.7.2.4 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

##### 5.4.7.2.4 Abnormal cases in the UE

The following abnormal cases can be identified:

a) Transmission failure of the NETWORK SLICE-SPECIFIC AUTHENTICATION COMPLETE message with TAI change from lower layers

If the current TAI is not in the TAI list, the network slice-specific authentication and authorization procedure shall be aborted and:

- if the UE is registered, a registration procedure for mobility and periodic registration update indicating "mobility registration updating" in the 5GS registration type IE of the REGISTRATION REQUEST message shall be initiated; and

- otherwise a registration procedure for initial registration shall be initiated.

b) Void.

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

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.