**3GPP TSG-CT WG1 Meeting #130-eC1-21xxxx was C1-212948**

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

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.501** | **CR** | **3173** | **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)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME | **x** | Radio Access Network |  | Core Network | **x** |

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| ***Title:*** | Handing the abnormal case of Service Request in non-3GPP access type | | | | | | | | | |
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| ***Source to WG:*** | CATT | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GProtoc17 | | | | |  | ***Date:*** | | | 2021-05-06 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **C** |  | | | | | ***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:*** | | When registered to 5GC via non-3GPP access, the UE shall enter to 5GMM-IDLE mode upon indication from the lower layers of non-3GPP access that the access stratum connection is broken. But upon indication from the lower layers of non-3GPP access that the access stratum connection is established again, the UE shall initiate Service Request procedure including UE’s 5G-S-TMSI via non-3GPP access. At this time, the UE may select a new N3IWF based on the non-3GPP access node selection information which is associated with an FQDN parameter which indicates the Tracking/Location Area Identitiy FQDN. Because the movement of the UE may lead the UE to a new Tracking/Location Area corresponding to an new N3IWF FQDN. But the N3IWF may steer the Service Request message to the new AMF as N3IWF can not identify a corresponding AMF based on UE’s GUAMI included in RRC message. When the Service Request message is received by the new AMF, the 5G-S-TMSI in Service Request message can not be used to identify the UE’s context in the AMF. But in current specification, there is no content to specify this case. | | | | | | | | |
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| ***Summary of change:*** | | Add a new case that captures the situation that AMF can not identify the corresponding UE’s context based on 5G-S-TMSI in Service Request message due to the change of N3IWF. | | | | | | | | |
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| ***Consequences if not approved:*** | | The handing of the proposed case is not specified in current specfication. | | | | | | | | |
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| ***Clauses affected:*** | | A.1 | | | | | | | | |
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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:*** | |  | | | | | | | | |

\*\*\*\*\* change \*\*\*\*\*

## A.1 Causes related to UE identification

Cause #3 – Illegal UE

This 5GMM cause is sent to the UE when the network refuses service to the UE either because an identity of the UE is not acceptable to the network or because the UE does not pass the authentication check.

Cause #6 – Illegal ME

This 5GMM cause is sent to the UE if the ME used is not acceptable to the network, e.g. on the prohibited list.

Cause #9 – UE identity cannot be derived by the network.

This 5GMM cause is sent to the UE when the network cannot derive the UE's identity from the 5G-GUTI or 5G-S-TMSI because of e.g. no matching identity/context in the network, failure to validate the UE's identity due to integrity check failure of the received message.

Cause #10 – Implicitly de-registered

This 5GMM cause is sent to the UE either if the network has implicitly de-registered the UE, e.g. after the implicit de-registration timer has expired, or if the 5GMM context data related to the subscription does not exist in the AMF e.g. because of a AMF restart, or because of a registration request for mobility or registration update is routed to a new AMF, or because, due to the change of N3IWF, the new AMF can not identify the UE’s 5GMM context via 5G-S-TMSI included in Service Request message that is triggered upon indication from the lower layers of non-3GPP access that the access stratum connection is established again for the UE in 5GMM-REGISTERED state and in 5GMM-IDLE mode over non-3GPP access.