**3GPP TSG-CT WG1 Meeting #124-eC1-203659**

**Electronic meeting, 2-10 June 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **24.501** | **CR** | **2368** | **rev** | **-** | **Current version:** | **16.4.1** |  |
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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:***  | No CAG ID in de-registration request |
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| ***Source to WG:*** | Huawei, HiSilicon |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | Vertical\_LAN |  | ***Date:*** | 2020-05-26 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-16 |
|  | *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 canbe 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-12 (Release 12)**Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
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| ***Reason for change:*** | As the aggrement achieved between RAN2, SA2, SA3 and CT1, there is no selected CAG ID be transmitted between UE and network. While the current description about UE-initated de-registration still implies that UE will provide a CAG ID with the de-registration request (see below), which needs to be updated according to ahieved aggrement.*c) De-registration request received in a CAG cell with a CAG-ID which is not included in the UE's "allowed CAG list" for the current PLMN**If the UE initiates a de-registration procedure in a CAG cellwith a CAG-ID which is not included in the UE's "allowed CAG list" for the current PLMN and the de-registration procedure is not due to "switch off", the AMF shall initiate the de-registration procedure. The AMF shall send a DEREGISTRATION REQUEST message including the 5GMM cause #76 "Not authorized for this CAG or authorized for CAG cells only".*Another possible interpretation for above text is that, a de-registration request (without CAG-ID) is received in a CAG-cell, and the CAG-cell supports one or more CAG-IDs. If a supported CAG-ID doesn’t belong to the UE’s “allowed CAG list”, network shall reply a de-registration request with #76. Following up this interpretation, let’s suppose there is a CAG-cell which supports CAG\_ID1, CAG\_ID2, CAG\_ID3, and the UE’s allowed CAG list is {CAG\_ID1, CAG\_ID2}. Since CAG\_ID3 is not in then UE’s allowed CAG list, then network will notify the UE that “not authorized for this CAG or authorized for CAG cells only”, which is obviously unreasonable. |
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| ***Summary of change:*** | Clarify that if no CAG which is both supported by CAG cell and included in UE’s allowed CAG list, network shall reply a de-registration request with #76 |
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| ***Consequences if not approved:*** | Inapporpriate abnormal case handling of UE-intiated de-registration for PNI-NPN |
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| ***Clauses affected:*** | 5.5.2.2.7 |
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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 ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

\*\*\*\*\* Start of Change \*\*\*\*\*

##### 5.5.2.2.7 Abnormal cases in the network side

The following abnormal cases can be identified:

a) De-registration request received in a cell belonging to an SNPN with a non-globally-unique SNPN identity for which the UE has no valid subscription

 If the UE initiates a de-registration procedure in a cell belonging to an SNPN with a non-globally-unique SNPN identity for which the UE has no valid subscription, and the de-registration procedure is not due to "switch off", the network shall initiate the de-registration procedure. The AMF shall send a DEREGISTRATION REQUEST message including the 5GMM cause #74 "Temporarily not authorized for this SNPN".

b) De-registration request received in a cell belonging to an SNPN with a globally-unique SNPN identity for which the UE has no valid subscription

 If the UE initiates a de-registration procedure in a cell belonging to an SNPN with a globally-unique SNPN identity for which the UE has no valid subscription, and the de-registration procedure is not due to "switch off", the network shall initiate the de-registration procedure. The AMF shall send a DEREGISTRATION REQUEST message including the 5GMM cause #75 "Permanently not authorized for this SNPN".

c) De-registration request received in a CAG cell and none of the CAG ID broadcasted by the CAG cell is included in the UE's "allowed CAG list" for the current PLMN

 If the UE initiates a de-registration procedure in a CAG cell and none of the CAG ID broadcasted by the CAG cell is included in the UE's "allowed CAG list" for the current PLMN and the de-registration procedure is not due to "switch off", the AMF shall initiate the de-registration procedure. The AMF shall send a DEREGISTRATION REQUEST message including the 5GMM cause #76 "Not authorized for this CAG or authorized for CAG cells only".

d) De-registration request received in a non-CAG cell from a UE whose "CAG information list" includes an entry associated with the current PLMN, where the entry contains an "indication that the UE is only allowed to access 5GS via CAG cells"

 If the UE initiates a de-registration procedure in a non-CAG cell from a UE whose "CAG information list" includes an entry associated with the current PLMN, where the entry contains an "indication that the UE is only allowed to access 5GS via CAG cells" and the de-registration procedure is not due to "switch off", the AMF shall initiate the de-registration procedure. The AMF shall send a DEREGISTRATION REQUEST message including the 5GMM cause #76 "Not authorized for this CAG or authorized for CAG cells only".

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