**3GPP TSG-CT WG1 Meeting #132-eC1-21xxxx**

**E-meeting, 11-15 October 2021**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **24.501** | **CR** | **3677** | **rev** | **1** | **Current version:** | **17.4.1** |  |
|  |
| *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:***  | Applicability and validity of 5GMM cause value #78 |
|  |  |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | 5GSAT\_ARCH-CT |  | ***Date:*** | 2021-10-12 |
|  |  |  |  |  |
| ***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 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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
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| ***Reason for change:*** | Section 4.23.2 describes applicability and validity the indication of country of UE location. 5GMM cause value #78 should also be taken into account. |
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| ***Summary of change:*** | Applicability and validity of 5GMM cause value #78 are clarified. |
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| ***Consequences if not approved:*** | It is not clear how 5GMM cause value #78 is used by the UE. |
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| ***Clauses affected:*** | 4.23.2 |
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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:*** |  |

### 4.23.2 Handling of 5GMM cause value #78 and network's indication of country of UE location

5GMM cause value #78 "PLMN not allowed to operate at the present UE location" and the network provided indication of country of UE location is only applicable for a UE accessing a PLMN using satellite NG-RAN.

The UE may receive 5GMM cause value #78 "PLMN not allowed to operate at the present UE location" or an indication of country of UE location from the network in REGISTRATION REJECT, DEREGISTRATION REQUEST or SERVICE REJECT. If a 5GMM message includes 5GMM cause value "PLMN not allowed to operate at the present UE location", the UE shall store the identity of the current PLMN in the list of "PLMNs not allowed to operate at the present UE location" which is used as described in 3GPP TS 23.122 [5] If provided, the contents of the indication of country of UE location may be applied in procedures described in 3GPP TS 23.122 [5].

If 5GMM cause value #78 "PLMN not allowed to operate at the present UE location" or an indication of country of UE location is provided to the UE, the list of "PLMNs not allowed to operate at the present UE location" and that indication will be valid until the next successful initial registration to a PLMN through satellite access or when updated by the network.

If the UE receives 5GMM cause value #78 "PLMN not allowed to operate at the present UE location" from a network not accessed through satellite NG-RAN, the UE shall consider it as an abnormal case. If the UE receives an indication of country of UE location from a network not accessed through satellite NG-RAN, the UE shall ignore the received indication.

Editor's note [5GSAT\_ARCH-CT, CR#3219]: It is FFS if and how the HPLMN can influence the validity and use of the indication of country of UE location in the UE.

Editor's note [5GSAT\_ARCH-CT, CR#3219]: The name and the encoding of the information element providing the country of the UE location is FFS.