**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** | **3508** | **rev** | **2** | **Current version:** | **17.4.1** |  |
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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 |  |

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| ***Title:***  | Validity of an indication of country of UE location |
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| ***Source to WG:*** | Nokia, Nokia Shanghai Bell, Qualcomm Incorporated |
| ***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:*** | The validity of the “indication of country of UE location” was decided as follows:***that indication will be valid until the next successful initial registration to a PLMN through satellite access or when updated by the network***The decision implies that the indication is considered valid at least until the result of the registration attempt to a PLMN via satellite access, i.e., if a UE does not attempt registration to a PLMN via satellite access, the indication will be considered valid.However, there are some cases where the indication should be considered as expired earlier. For example, after a UE in Country A got its registration rejected with cv #78 (e.g. due to lack of GPS signal) and received the indication indicating Country A, it can enter the limited service state without registering to any network for some time and move to Country B. In this case, the received indication will no longer be valid. In such cases, the UE should be allowed to consider the indication expired. |
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| ***Summary of change:*** | A UE can consider the indication as expired based on implementation-specific reasons. |
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| ***Consequences if not approved:*** | Invalid indication of the country of UE location may lead to denial of service. |
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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 ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

### 4.23.2 Handling of network's indication of country of UE location

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 an indication of country of UE location from the network in REGISTRATION REJECT message, DEREGISTRATION REQUEST message, or SERVICE REJECT message. 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 an indication of country of UE location is provided to the UE, that indication is valid until:

a) the next successful initial registration to a PLMN through satellite NG-RAN;

b) the indication is updated by the network; or

c) other UE implementation-specific criteria are met.

If the UE receives an indication of country of UE location from a network not accessed through satellite access, 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.