**3GPP TSG-CT WG1 Meeting #135-eC1-223094**

**E-Meeting, 6th – 12th April 2022 *was* C1-222840**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **24.501** | **CR** | **4218** | **rev** | **1** | **Current version:** | **17.6.1** |  |
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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:***  |  |
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| ***Source to WG:*** | ZTE, Nokia, Nokia Shanghai Bell |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | TEI17\_N3SLICE |  | ***Date:*** | 2022-04-11 |
|  |  |  |  |  |
| ***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:*** | SA2 reply LS S2-2201745 provides the answers to the questions from CT1:* In case of Untrusted or Trusted N3GPP access the UE is not expected to know the current TAI for non-3GPP access. Therefore the UE cannot add this specific TAI into the list of 5GS forbidden tracking areas.
* UE does not need to keep track of multiple non-3GPP TAIs within the list of 5GS forbidden tracking areas for the non-3GPP access. (Here non-3GPP access actually refers to trusted or untrusted non-3GPP access.)

And the related CR S2-2201746 further clarifies that:* Forbidden Areas should not be used for Untrusted or Trusted non-3GPP access.
* If a UE receives that the UE is accessing from a forbidden tracking area when registering over untrusted non-3GPP access or trusted non-3GPP access, the UE cannot determine the corresponding TAI and thus needs to consider that access to untrusted non-3GPP access and to trusted non-3GPP access in this PLMN is forbidden until the forbidden area list is removed as described in TS 24.501.

Therefore, corresponding clarifications should be provided in this specification accordingly. |
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| ***Summary of change:*** | Specify that Over wireline access, the 5G-RG, the W-AGF acting on behalf of an FN-RG or the W-AGF acting on behalf of an N5GC device shall update the suitable list whenever a REGISTRATION REJECT, SERVICE REJECT or DEREGISTRATION REQUEST message is received with the 5GMM cause #12 "tracking area not allowed" or #13 "roaming not allowed in this tracking area".Add a NOTE clarifying for untrusted non-3GPP access and trusted non-3GPP access, neither list of "5GS forbidden tracking areas for roaming" nor list of "5GS forbidden tracking areas for regional provision of service" is maintained by the UE since the UE is not able to determine the corresponding TAI. |
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| ***Consequences if not approved:*** | Inconsistent with stage 2 statement. |
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| ***Clauses affected:*** | 5.3.13 |
|  |  |
|  | **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:*** |  |

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\* \* \* First Change \* \* \* \*

### 5.3.13 Lists of 5GS forbidden tracking areas

If the UE is not operating in SNPN access operation mode, the UE shall store a list of "5GS forbidden tracking areas for roaming", as well as a list of "5GS forbidden tracking areas for regional provision of service". Otherwise the UE shall store a list of "5GS forbidden tracking areas for roaming":

- per SNPN; and

- if the UE supports access to an SNPN using credentials from a credentials holder, per entry of the "list of subscriber data" or PLMN subscription;

and store a list of "5GS forbidden tracking areas for regional provision of service":

- per SNPN; and

- if the UE supports access to an SNPN using credentials from a credentials holder, per entry of the "list of subscriber data" or PLMN subscription.

Within the 5GS, these lists are managed independently per access type, i.e., 3GPP access or wireline access. These lists shall be erased when:

a) the UE is switched off, the UICC containing the USIM is removed, an entry of the "list of subscriber data" with the subscribed SNPN identity identifying the current SNPN is updated or, if the UE supports access to an SNPN using credentials from a credentials holder, the entry of the "list of subscriber data" associated with the lists is updated; and

b) periodically (with a period in the range 12 to 24 hours).

Over 3GPP access, when the lists are erased, the UE performs cell selection according to 3GPP TS 38.304 [28] or 3GPP TS 36.304 [25C]. A tracking area shall be removed from the list of "5GS forbidden tracking areas for roaming", as well as the list of "5GS forbidden tracking areas for regional provision of service", if the UE receives the tracking area in the TAI list or the Service area list of "allowed tracking areas" in REGISTRATION ACCEPT message or a CONFIGURATION UPDATE COMMAND message. The UE shall not remove the tracking area from "5GS forbidden tracking areas for roaming" or "5GS forbidden tracking areas for regional provision of service" if the UE is registered for emergency services.

In N1 mode over 3GPP access, the UE shall update the suitable list whenever a REGISTRATION REJECT, SERVICE REJECT or DEREGISTRATION REQUEST message is received with the 5GMM cause #12 "tracking area not allowed", #13 "roaming not allowed in this tracking area", or #15 "no suitable cells in tracking area".

Over wireline access, the 5G-RG, the W-AGF acting on behalf of an FN-RG or the W-AGF acting on behalf of an N5GC device shall update the suitable list whenever a REGISTRATION REJECT, SERVICE REJECT or DEREGISTRATION REQUEST message is received with the 5GMM cause #12 "tracking area not allowed" or #13 "roaming not allowed in this tracking area".

NOTE: In this release of the specification, for untrusted non-3GPP access and trusted non-3GPP access, neither the list of "5GS forbidden tracking areas for roaming" nor the list of "5GS forbidden tracking areas for regional provision of service" is maintained by the UE since the UE is not able to determine the corresponding TAI.

Each list shall accommodate 40 or more TAIs. When the list is full and a new entry has to be inserted, the oldest entry shall be deleted.

\* \* \* End of Changes \* \* \* \*