**3GPP TSG-CT WG1 Meeting #141eC1-23xxxx**

**Online 17– 21 April 2023 *was C1-232405***

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
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|  | **24.501** | **CR** | **5289** | **rev** | **1** | **Current version:** | **18.2.1** |  |
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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:***  | Clarification on handling of received T3502 in registration reject message |
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| ***Source to WG:*** | Huawei, HiSilicon |
| ***Source to TSG:*** | C1 |
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| ***Work item code:*** | 5GProtoc18 |  | ***Date:*** | 2023-03-20 |
|  |  |  |  |  |
| ***Category:*** | F |  | ***Release:*** | Rel-18 |
|  | *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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
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| ***Reason for change:*** | About how to apply the T3502 in the registration reject message, the following bule text is very confusing as it seems indicate if no new value is included in the registration reject message, the UE shall keep using the last received one, which is not correct. This confusing is proposed to be removed in the CR. And the green text below is duplicated with other content (see the yellow text), which is also removed. The value of timer T3502 can be sent by the network to the UE in the REGISTRATION REJECT message during the initial registration. If a REGISTRATION REJECT message including timer T3502 value was received integrity protected, the UE shall apply this value until a new value is received with integrity protection or a new PLMN or SNPN is selected. Otherwise, the default value of this timer is used.The default value of this timer is also used by the UE in the following cases:c) a new PLMN which is not in the list of equivalent PLMNs or a new SNPN has been entered, the initial registration procedure fails, the registration attempt counter is equal to 5 and no REGISTRATION REJECT message was received from the new PLMN or SNPN;e) a new PLMN which is not in the list of equivalent PLMNs or a new SNPN has been entered, the registration procedure for mobility and periodic registration update fails and the registration attempt counter is equal to 5.As specified, only during the initial registration(attach procedure in LTE), the T3502 can be sent in the registration reject message:The value of timer T3502 can be sent by the network to the UE in the REGISTRATION REJECT message during the initial registration. If a REGISTRATION REJECT message including timer T3502 value was received integrity protected, the UE shall apply this value until a new value is received with integrity protection or a new PLMN or SNPN is selected. Otherwise, the default value of this timer is used.but never consider the issue below:**Issue**: The UE receives the REGISTRATION REJECT message during the registration procedure for mobility and periodic registration update, enters the substate 5GMM-REGISTERED.ATTEMPTING-REGISTRATION-UPDATE, performs the registration procedure for mobility and periodic registration update to the same PLMN again, but fails and the registration attempt counter is equal to 5.About this issue, because the received T3502 in the registration accept message is applicable in the registration area, if the registration request is rejected by the network, the UE may not know whether it is in the registration area, hence applying the received T3502 in the registration accept message is not suitable. Hence for this case, it is proposed to apply the default value.Hence, it is proposed:If the UE receives the REGISTRATION REJECT message during the registration procedure for mobility and periodic registration update, enters the substate 5GMM-REGISTERED.ATTEMPTING-REGISTRATION-UPDATE, performs the registration procedure for mobility and periodic registration update to the same PLMN again, but fails and the registration attempt counter is equal to 5, the UE shall apply the default value. |
| ***a)*** |  |
| ***Summary of change:*** | It is proposed:1. removing the confused and duplicate text “until a new value is received with integrity protection or a new PLMN or SNPN is selected”;
2. If the UE receives the REGISTRATION REJECT message during the registration procedure for mobility and periodic registration update, enters the substate 5GMM-REGISTERED.ATTEMPTING-REGISTRATION-UPDATE, performs the registration procedure for mobility and periodic registration update to the same PLMN again, but fails and the registration attempt counter is equal to 5, the UE shall apply the default value.
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| ***Consequences if not approved:*** | 1. The confusing and also duplicate text remains. The confusing part may lead UE applying incorrect timer.
2. The UE may keep using the stored T3502 received in the registration accept message, if:

the UE receives the REGISTRATION REJECT message during the registration procedure for mobility and periodic registration update, enters the substate 5GMM-REGISTERED.ATTEMPTING-REGISTRATION-UPDATE, performs the registration procedure for mobility and periodic registration update to the same PLMN again, but fails and the registration attempt counter is equal to 5. |
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| ***Clauses affected:*** | 5.3.8 |
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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:*** |  |

\*\*\*\*\*First change \*\*\*\*\*

### 5.3.8 Handling of timer T3502

The value of timer T3502 can be sent by the network to the UE in the REGISTRATION ACCEPT message. The UE shall apply this value in all tracking areas of the registration area assigned to the UE, until a new value is received.

The value of timer T3502 can be sent by the network to the UE in the REGISTRATION REJECT message during the initial registration. If a REGISTRATION REJECT message including timer T3502 value was received integrity protected, the UE shall apply this value. Otherwise, the default value of this timer is used.

NOTE: if the UE receives the REGISTRATION REJECT message during the registration procedure for mobility and periodic registration update, enters the substate 5GMM-REGISTERED.ATTEMPTING-REGISTRATION-UPDATE, performs the registration procedure for mobility and periodic registration update to the same PLMN again, but fails and the registration attempt counter is equal to 5, the the default value of this timer is used.

The default value of this timer is also used by the UE in the following cases:

a) REGISTRATION ACCEPT message is received without a value specified;

b) the UE does not have a stored value for this timer;

c) a new PLMN which is not in the list of equivalent PLMNs or a new SNPN has been entered, the initial registration procedure fails, the registration attempt counter is equal to 5 and no REGISTRATION REJECT message was received from the new PLMN or SNPN;

d) the network indicates that the timer is "deactivated"; or

e) a new PLMN which is not in the list of equivalent PLMNs or a new SNPN has been entered, the registration procedure for mobility and periodic registration update fails and the registration attempt counter is equal to 5.

\*\*\*\*\* End of changes \*\*\*\*\*