**3GPP TSG-CT WG1 Meeting #135-eC1-222812**

**E-Meeting, 6th – 12th April 2022**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **24.501** | **CR** | **4209** | **rev** | **-** | **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 | **X** |

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| ***Title:***  | Trigger of UE-initiated de-registration procedure |
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| ***Source to WG:*** | vivo |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | MINT |  | ***Date:*** | 2022-03-28 |
|  |  |  |  |  |
| ***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:*** | Based on the requirement of stage 2, if the UE is registered for disaster roaming services, after receiving the indication of disaster roaming is disabled in the UE, the UE shall perform UE-initiated de-registration procedure, which should be reflected in stage 3.  |
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| ***Summary of change:*** | If the UE is registered for disaster roaming services, after receiving the indication of disaster roaming is disabled in the UE, the UE shall perform UE-initiated de-registration procedure |
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| ***Consequences if not approved:*** | Out of service due to the UE is still registerd in a PLMN for disaster roaming. |
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| ***Clauses affected:*** | 5.5.2.1 |
|  |  |
|  | **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:*** |  |

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

#### 5.5.2.1 General

The de-registration procedure is used:

a) by the UE to de-register for 5GS services over 3GPP access when the UE is registered over 3GPP access;

b) by the UE to de-register for 5GS services over non-3GPP access when the UE is registered over non-3GPP access;

c) by the UE to de-register for 5GS services over 3GPP access, non-3GPP access or both when the UE is registered in the same PLMN over both accesses;

d) by the network to inform the UE that it is deregistered for 5GS services over 3GPP access when the UE is registered over 3GPP access;

e) by the network to inform the UE that it is deregistered for 5GS services over non-3GPP access when the UE is registered over non-3GPP access;

f) by the network to inform the UE that it is deregistered for 5GS services over 3GPP access, non-3GPP access or both when the UE is registered in the same PLMN over both accesses;

g) by the network to inform the UE to re-register to the network; and

h) by the network to inform the UE supporting UAS service that it is deregistered for UAS services in 5GS.

The de-registration procedure with appropriate de-registration type shall be invoked by the UE:

a) if the UE is switched off;

b) as part of the eCall inactivity procedure defined in subclause 5.5.3; and

c) as part of USIM removal.

The de-registration procedure with appropriate de-registration type shall be invoked by the network:

a) if the network informs whether the UE should re-register to the network.

The de-registration procedure with appropriate access type shall be invoked by the UE:

a) if the UE needs to de-register for 5GS services over 3GPP access when the UE is registered over 3GPP access;

b) if the UE needs to de-register for 5GS services over non-3GPP access when the UE is registered over non-3GPP access;

c) the UE needs to de-register for 5GS services over 3GPP access, non-3GPP access or both when the UE is registered in the same PLMN over both accesses; or

d) to de-register for 5GS services over 3GPP access, if the UE is registered for disaster roaming over 3GPP access and has successfully registered over non-3GPP access on another PLMN.

The de-registration procedure with appropriate access type shall be invoked by the network:

a) if the network needs to inform the UE that it is deregistered over 3GPP access when the UE is registered over 3GPP access;

b) if the network needs to inform the UE that it is deregistered over non-3GPP access when the UE is registered over non-3GPP access; or

c) if the network needs to inform the UE that it is deregistered over 3GPP access, non-3GPP access or both when the UE is registered in the same PLMN over both accesses.

If the de-registration procedure is triggered due to USIM removal, the UE shall indicate "switch off" in the de-registration type IE.

If the de-registration procedure is requested by the network for a UE that has an emergency PDU session, the AMF shall not send a DEREGISTRATION REQUEST message to the UE and indicate to the SMF to release all non-emergency PDU sessions as specified in 3GPP TS 23.502 [9].

If the de-registration procedure for 5GS services is performed, a local release of the PDU sessions, if any, for this particular UE is performed. If a PDU session is associated with one or more MBS sessions, the UE is considered as removed from the associated MBS sessions.

The UE is allowed to initiate the de-registration procedure even if the timer T3346 is running.

NOTE 1: When the UE has no PDU sessions over non-3GPP access, or the UE moves all the PDU sessions over a non-3GPP access to a 3GPP access, the UE and the AMF need not initiate de-registration over the non-3GPP access.

The AMF shall provide the UE with a non-3GPP de-registration timer.

When the AMF enters the state 5GMM-DEREGISTERED for 3GPP access, the AMF shall delete the stored UE radio capability information or the UE radio capability ID, if any.

When upper layers indicate that emergency services are no longer required, the UE if still registered for emergency services, may perform UE-initiated de-registration procedure followed by a re-registration to regain normal services, if the UE is in or moves to a suitable cell.

If the UE is registered for onboarding services in SNPN, after completing the configuration of one or more entries of the "list of subscriber data", the UE should perform UE-initiated de-registration procedure. To prevent the UE registered for onboarding services in SNPN from staying on the ON-SNPN or to prevent a UE whose subscription only allows for configuration of SNPN subscription parameters in PLMN via the user plane, from staying registered indefinitely, when an implementation specific timer expires:

- if the AMF considers that the UE is in 5GMM-IDLE, the AMF shall locally de-registers the UE; or

- if the UE is in 5GMM-CONNECTED, the AMF shall initiate the network-initiated de-registration procedure (see subclause 5.5.2.3).

NOTE 2: The value of the implementation specific timer for onboarding services needs to be large enough to allow a UE to complete the configuration of one or more entries of the "list of subscriber data" taking into consideration that configuration of SNPN subscription parameters in PLMN via the user plane or onboarding services in SNPN involves third party entities outside of the operator's network.

NOTE 3: How to determine the completion of the configuration of one or more entries of the "list of subscriber data" is UE implementation specific.

If the de-registration procedure is not due to switch off and upper layers request establishing an emergency PDU session before the de-registration procedure has been completed, the UE shall abort the deregistration procedure, perform local de-registration and initiate a registration procedure.

If the UE in 5GMM-CONNECTED mode determines to obtain service on a higher priority PLMN due to SOR, then based on the conditions as specified in 3GPP TS 23.122 [5] annex C, where applicable, the UE shall perform UE-initiated de-registration procedure.

If the UE is registered for disaster roaming services, and the UE receives an indication of whether disaster roaming is enabled in the UE set to "Disaster roaming is disabled in the UE" in a UE parameters update transparent container, the UE shall perform UE-initiated de-registration procedure.

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