**3GPP TSG-CT WG1 Meeting #123-eC1-202531**

**Electronic meeting, 16-24 April 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.501** | **CR** | **2203** | **rev** | **-** | **Current version:** | **16.4.0** |  |
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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:*** | Handlings of MA PDU session when deregistration from an access | | | | | | | | | |
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| ***Source to WG:*** | MediaTek Inc. | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | ATSSS | | | | |  | ***Date:*** | | | 2020-03-30 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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 can be 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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
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| ***Reason for change:*** | | Based on TS 23.501 subclause 5.32.2:  *When the UE deregisters from one access (but remains registered on the other access), the AMF informs the SMF to release the resource of this access type in the UPF for the MA PDU Session. Subsequently, the SMF notifies the UPF that the access type has become unavailable and the N3/N9 tunnel for the access type are released.*  When the UE is deregistered from an access (i.e., either 3GPP access or non-3GPP access), the handlings of an established MA PDU session is not defined in TS 24.501. | | | | | | | | |
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| ***Summary of change:*** | | When the UE deregisters from one access:   * If there’s an MA PDU session with user plane resources established on both 3GPP access and non-3GPP access in the same PLMN or in different PLMNs, the user plane resources on the corresponding access shall be locally released. * If there’s an MA PDU session with user plane resources established on only the corresponding access, the MA PDU session shall be locally released. | | | | | | | | |
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| ***Consequences if not approved:*** | | After deregistration from an access, the UP resources on the corresponding access or the MA PDU session (if the MA PDU session has only UP resources on the corresponding access) are not released accordingly. | | | | | | | | |
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| ***Clauses affected:*** | | 5.5.2.2.3, 5.5.2.2.4 | | | | | | | | |
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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:*** | |  | | | | | | | | |

\*\*\*\*\* Next change \*\*\*\*\*

##### 5.5.2.2.3 UE-initiated de-registration procedure completion for 5GS services over 3GPP access

If the access type in the DEREGISTRATION REQUEST message indicates that the de-registration procedure is for 3GPP access, the AMF shall trigger the SMF to perform a local release of the PDU session(s) established over 3GPP access, if any, for this UE. The UE shall perform a local release of the PDU session(s) established over 3GPP access, if any. If there is an MA PDU session with user plane resources established on both 3GPP access and non-3GPP access in the same PLMN or in different PLMNs, the AMF shall trigger SMF to perform release of user plane resources on 3GPP access, and the UE shall consider the user plane resources on 3GPP access as released. If there is an MA PDU session with user plane resources established on 3GPP access only, the AMF shall trigger the SMF to perform a local release of the MA PDU session, and the UE shall perform a local release of the MA PDU session. The UE is marked as inactive in the AMF for 5GS services for 3GPP access. The AMF shall enter the state 5GMM-DEREGISTERED for 3GPP access.

If the UE supports N1 mode only and the de-registration request is not due to switch off, then:

a) if the de-registration procedure was performed due to disabling of 5GS services, then the UE shall enter the 5GMM-NULL state for 3GPP access;

b) otherwise, the UE shall enter the 5GMM-DEREGISTERED state for 3GPP access.

NOTE: Case b) is applicable when the UE is also registered over non-3GPP access.

If the access type indicates that the de-registration procedure is for 3GPP access or for 3GPP access and non-3GPP access, and the UE is operating in single-registration mode, it shall additionally proceed as specified in 3GPP TS 24.301 [15], subclause 5.5.2.2.2, for the case when the UE receives an EMM message DETACH ACCEPT. Furthermore, if the UE supports A/Gb or Iu mode, it shall disable the N1 mode capability for 3GPP access.

\*\*\*\*\* Next change \*\*\*\*\*

##### 5.5.2.2.4 UE-initiated de-registration procedure completion for 5GS services non-3GPP access

If the access type in the DEREGISTRATION REQUEST indicates that the de-registration procedure is for non-3GPP access, the AMF shall trigger SMF to perform a local release of the PDU session(s) established over non-3GPP access, if any, for this UE. The UE shall perform a local release of the PDU session(s) established over non-3GPP access, if any. If there is an MA PDU session with user plane resources established on both 3GPP access and non-3GPP access in the same PLMN or in different PLMNs, the AMF shall trigger SMF to perform release of user plane resources on non-3GPP access, and the UE shall consider the user plane resources on non-3GPP access as released. If the UE has an MA PDU session with user plane resources established on non-3GPP access only, the AMF shall trigger the SMF to perform a local release of the MA PDU session, and the UE shall perform a local release of the MA PDU session. The UE is marked as inactive in the AMF for 5GS services for non-3GPP access. The AMF shall enter the state 5GMM-DEREGISTERED over non-3GPP access.

If the de-registration request is not due to switch off, the UE shall:

a) if the de-registration procedure was performed due to disabling of 5GS services, enter the 5GMM-NULL state for non-3GPP access;

b) otherwise, enter the 5GMM-DEREGISTERED state for non-3GPP access.

NOTE: Case b) is applicable when the UE is also registered over 3GPP access.