**3GPP TSG-RAN WG3 Meeting #112-e *R3-212749***

**E-meeting, 17-28 May 2021**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **38.413** | **CR** | **0555** | **rev** | **2** | **Current version:** | 15.11.0 |  |
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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 |  | Radio Access Network | **X** | Core Network | **X** |

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| ***Title:*** | Interactions with other procedures for the UE TNLA BINDING RELEASE | | | | | | | | | |
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| ***Source to WG:*** | Huawei, China Telecom, Orange | | | | | | | | | |
| ***Source to TSG:*** | RAN3 | | | | | | | | | |
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| ***Work item code:*** | NR\_newRAT-Core | | | | |  | ***Date:*** | | | 2021-05-01 |
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| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-15 |
|  | *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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
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| ***Reason for change:*** | | For the UE TNLA Binding Release Request message, the interactions with other procedures are described that the ongoing procedures (except for the NG reset or another UE TNLA Binding release message) shall be aborted as follows.  ***Interactions with other procedures:***  *If the UE TNLA BINDING RELEASE REQUEST message is received, any other ongoing procedure (except for the NG Reset procedure or another UE TNLA Binding Release procedure) on the same NG interface related to the UE indicated in the UE TNLA BINDING RELEASE REQUEST message shall be aborted.*  However consider the following procedures.   1. The AMF sends the *PDU Session Resource Setup Request* to the NG-RAN; 2. The NG-RAN sends the *RRCreconfiguration* to the UE; 3. Before the NG-RAN sends *PDU SESSION RESOURCE SETUP RESPONSE* message, the AMF sends the UE TNLA Binding Release Request to the NG-RAN node; 4. The NG-RAN has to abort the transfer of the *PDU SESSION RESOURCE SETUP RESPONSE* message, if following the above interactions.   However this will introduce the misalignment between the AMF, and the UE. Note that this procedure may happen due to the fact that the AMF is transparent about the SMF information, and initiates the TNLA Binding Release if any need.  In addition, as specified in the section 4.2.7.2.3 *Re-Creating NGAP UE-TNLA-bindings subsequent to NGAP UE-TNLA-binding release* of TS 23. 502, the detailed actions for the NG-RAN and AMF have been specified clearly.  *If the AMF has released the NGAP UE-TNLA-binding in the 5G-AN node for a UE, and the 5G-AN node needs to send an N2 message for this UE, the following applies:*  *- The 5G-AN node checks the GUAMI stored in the UE context and the associated AMF:*  *……*  *- The 5G-AN node creates an NGAP UE-TNLA-binding for the UE by selecting a TNL association from the available TNL associations permitted for the initial N2 message with the selected AMF, as defined in TS 23.501 [2] clause 5.21.1.3,and sends the N2 message to the AMF via the selected TNL association.*  *- If the NGAP UE-TNLA-binding has been released for a UE and the AMF needs to send an N2 message for this UE, the following applies:*  *……*  Typically, for the above procedures, the NG-RAN can send the PDU SESSION RESOURCE SETUP RESPONSE message, by selecting a TNL association from the available TNL associations within the selected AMF, as specified 4.2.7.2.3 of TS 23.502. | | | | | | | | |
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| ***Summary of change:*** | | Remove the interactions with other procedures for the UE TNLA BINDING RELEASE REQUEST message, and add reference to TS 23.502.  Impact Analysis:  Impact assessment towards the previous version of the specification (same release):  This CR has isolated impact with the previous version of the specification (same release) because it is related to the UE TNLA BINDING RELEASE REQUEST procedure.  The impact can be considered isolated. | | | | | | | | |
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| ***Consequences if not approved:*** | | The misalignment between the UE and AMF may occur if the ongoing procedure is aborted upon the UE TNLA BINDING RELEASE REQUEST message | | | | | | | | |
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| ***Clauses affected:*** | | 8.13.1 | | | | | | | | |
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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:*** | | Rev0: R3-210591  Rev1: R3-212088  Resubmission to RAN3-112-e.  Rev2: R3-212749  Revert the changes, specifically, remove the interactions with other procedures, and add reference to TS 23.502. | | | | | | | | |

## 8.13 UE TNLA Binding Procedures

### 8.13.1 UE TNLA Binding Release

#### 8.13.1.1 General

The purpose of the UE TNLA Binding Release procedure is to request the NG-RAN node to release the NGAP UE TNLA binding, while requesting the NG-RAN node to maintain NG-U (user plane connectivity) and UE context information as specified in TS 23.502 [10]. The procedure uses UE-associated signalling.

#### 8.13.1.2 Successful Operation



Figure 8.13.1.2-1: UE TNLA binding release request

At reception of the UE TNLA BINDING RELEASE REQUEST message, the NG-RAN node shall release the UE TNLA binding for the UE indicated in the UE TNLA BINDING RELEASE REQUEST message. The NG-RAN node shall keep the NG-U (user plane connectivity) and UE context information for the UE, and behave according to TS 23.502 [10].

#### 8.13.1.3 Abnormal Conditions

Void.