**3GPP TSG-CT WG1 Meeting #141eC1-232564**

**Online 17– 21 April 2023**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** |  | **rev** | **1** | **Current version:** |  |  |
|  | | | | | | | | |
| *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:*** |  | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI18, 5G\_ | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | |  |
|  | *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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | 1. The following description is not clear and should be clarified:  *The initiating UE shall form the new KNRP ID from the MSBs of KNRP ID included in the PROSE DIRECT LINK RELEASE REQUEST message and the LSBs of KNRP ID received in the PROSE DIRECT LINK RELEASE ACCEPT message. The initiating UE shall replace the existing KNRP ID with the new KNRP ID. The initiating UE may include the new KNRP ID in PROSE DIRECT LINK ESTABLISHMENT REQUEST message with the target UE as specified in clause 7.2.2.2.*  Actually, the usage of KNRP ID is specified in TS 33.536 clause 5.3.3.2.2.2:  *UE\_2 shall form the new KNRP ID from the MSB received from UE\_1 and the LSB that UE\_2 chose. UE\_2 may use this new KNRP ID when it reconnects with UE\_1.*  2. when the cause value for link release is #4 (not available anymore), the initiating UE can release the link directly:  *If retransmission timer T5087 expires and the PC5 signalling protocol cause included in the PC5 signalling protocol cause IE in the PROSE DIRECT LINK RELEASE REQUEST message was #4 "direct connection is not available anymore", the initiating UE shall release the 5G ProSe direct link locally and delete the KNRP ID associated with this link. From this time onward the initiating UE shall no longer send or receive any messages via this link.*  Actually, the same logic should be applied for cause value #5 lack of resources for the 5G ProSe direct link. The reason is there is a direct link between two UEs when initiating a link release procedure. If a direct link has no resources for communication, it is not possible for the UE to initiate a complete procedure. | | | | | | | | |
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| ***Summary of change:*** | | 1. Clarify the intention of KNRP ID;  2. Clarify the UE can locally release the direct link when cause value #5 lack of resources for 5G ProSe direct link is included. | | | | | | | | |
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| ***Consequences if not approved:*** | | Not clear for 5G ProSe link release procedure | | | | | | | | |
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| ***Clauses affected:*** | | 7.2.6.4, 7.2.6.5.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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

#### 7.2.6.4 5G ProSe direct link release procedure completion by the initiating UE

Upon receipt of the PROSE DIRECT LINK RELEASE ACCEPT message, the initiating UE shall stop timer T5087 and shall release the 5G ProSe direct link by performing the following behaviours:

a) inform the lower layer along with the PC5 link identifier that the 5G ProSe direct link has been released; and

b) delete the 5G ProSe direct link context of the 5G ProSe direct link after an implementation specific time.

The initiating UE shall form the new KNRP ID from the MSBs of KNRP ID included in the PROSE DIRECT LINK RELEASE REQUEST message and the LSBs of KNRP ID received in the PROSE DIRECT LINK RELEASE ACCEPT message. The initiating UE shall replace the existing KNRP ID with the new KNRP ID. The initiating UE may include the new KNRP ID in PROSE DIRECT LINK ESTABLISHMENT REQUEST message with the target UE as specified in clause 7.2.2.2 when the initiating UE reconnects with the same target UE.

\* \* \* Next Change \* \* \* \*

##### 7.2.6.5.1 Abnormal cases at the initiating UE

If retransmission timer T5087 expires and the PC5 signalling protocol cause included in the PC5 signalling protocol cause IE in the PROSE DIRECT LINK RELEASE REQUEST message was #4 "direct connection is not available anymore" or #5 "lack of resources for 5G ProSe direct link", the initiating UE shall release the 5G ProSe direct link locally and delete the KNRP ID associated with this link. From this time onward the initiating UE shall no longer send or receive any messages via this link.

If retransmission timer T5087 expires and the PC5 signalling protocol cause included in the PC5 signalling protocol cause IE in the PROSE DIRECT LINK RELEASE REQUEST message was not #4 "direct connection is not available anymore" or not #5 "lack of resources for 5G ProSe direct link", the initiating UE shall initiate the transmission of the PROSE DIRECT LINK RELEASE REQUEST message again and restart timer T5087.

If no response is received from the target UE after reaching the maximum number of allowed retransmissions, the initiating UE shall release the 5G ProSe direct link locally and delete the KNRP ID associated with this link. From this time onward the initiating UE shall no longer send or receive any messages via this link.

NOTE: The maximum number of allowed retransmissions is UE implementation specific.

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