**3GPP TSG-CT WG1 Meeting #128-eC1-211abc**

**Electronic meeting, 25 February – 5 March 2021 (was C1-211027)**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.587** | **CR** | **0186** | **rev** | **1** | **Current version:** | **16.3.0** |  |
|  | | | | | | | | |
| *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:*** | Correction to length of the UE PC5 unicast signalling security policy IE and the Target user info IE | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, HiSilicon, OPPO, CATT | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eV2XARC | | | | |  | ***Date:*** | | | 2021-03-02 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The specification indicates that the length of the UE PC5 unicast signalling security policy IE included in the DIRECT LINK ESTABLISHMENT REQUEST message is 2 octets.  However, as per the UE PC5 unicast signalling security policy IE definition, this IE is of type 3 with a length of 2 octets, and therefore the value of the IE is 1 octect.  Similarly, the length of the Target user info IE is incorrect and needs to be corrected.  Finally, the references to the definition of the MSB of KNRP ID IE and the LSB of KNRP ID IE are corrected. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | The length of the UE PC5 unicast signalling security policy IE, when included in the DIRECT LINK ESTABLISHMENT REQUEST message, is corrected. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The lengths of the UE PC5 unicast signalling security policy IE and the Target user info IE included in the DIRECT LINK ESTABLISHMENT REQUEST message are incorrect which leads to wrong implementation. Wrong references to the definition of the MSB of KNRP ID IE and the LSB of KNRP ID IE remain which can lead to wrong implementation. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 7.3.1.1, 7.3.6.1, 7.3.7.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | Revision 1; proposals from C1-210873 are merged as well as from C1-210862 (i.e. clause 7.3.1.1), and both OPPO and CATT are added as co-sourcing companies of the CR. | | | | | | | | |

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

#### 7.3.1.1 Message definition

This message is sent by a UE to another peer UE to establish a direct link. See table 7.3.1.1.1.

Message type: DIRECT LINK ESTABLISHMENT REQUEST

Significance: dual

Direction: UE to peer UE

Table 7.3.1.1.1: DIRECT LINK ESTABLISHMENT REQUEST message content

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IEI | Information Element | Type/Reference | Presence | Format | Length |
|  | DIRECT LINK ESTABLISHMENT REQUEST message identity | PC5 signalling message type  8.4.1 | M | V | 1 |
|  | Sequence number | Sequence number  8.4.2 | M | V | 1 |
|  | V2X service identifiers | V2X service identifier  8.4.3 | M | LV | 5-253 |
|  | Source user info | Application layer ID  8.4.4 | M | LV | 3-253 |
|  | UE security capabilities | UE security capabilities  8.4.14 | M | LV | 3-9 |
|  | UE PC5 unicast signalling security policy | UE PC5 unicast signalling security policy  8.4.15 | M | V | 1 |
| 74 | Key establishment information container | Key establishment information container  8.4.12 | O | TLV-E | 4-n |
| 53 | Nonce\_1 | Nonce  8.4.13 | O | TV | 17 |
| 54 | MSBs of KNRP-sess ID | MSBs of KNRP-sess ID  8.4.16 | O | TV | 2 |
| 28 | Target user info | Application layer ID  8.4.4 | O | TLV | 4-254 |
| 52 | KNRP ID | KNRP ID  8.4.17 | O | TV | 5 |

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

#### 7.3.6.1 Message definition

This message is sent by the UE to another peer UE to initiate the direct link release procedure. See table 7.3.6.1.1.

Message type: DIRECT LINK RELEASE REQUEST

Significance: dual

Direction: UE to peer UE

Table 7.3.6.1.1: DIRECT LINK RELEASE REQUEST message content

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| IEI | | Information Element | | Type/Reference | | Presence | | Format | | Length | |
|  | | DIRECT LINK RELEASE REQUEST message identity | | PC5 signalling message type  8.4.1 | | M | | V | | 1 | |
|  | | Sequence number | | Sequence number  8.4.2 | | M | | V | | 1 | |
|  | | PC5 signalling protocol cause | | PC5 signalling protocol cause  8.4.9 | | M | | V | | 1 | |
|  | | MSB of KNRP ID | | MSB of KNRP ID  8.4.20 | | M | | V | | 2 | |

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

#### 7.3.7.1 Message definition

This message is sent by the UE to another peer UE to indicate that the link release request is accepted. See table 7.3.7.1.

Message type: DIRECT LINK RELEASE ACCEPT

Significance: dual

Direction: UE to peer UE

Table 7.3.7.1: DIRECT LINK RELEASE ACCEPT message content

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| IEI | | Information Element | | Type/Reference | | Presence | | Format | | Length | |
|  | | DIRECT\_LINK\_RELEASE ACCEPT message identity | | PC5 signalling message type  8.4.1 | | M | | V | | 1 | |
|  | | Sequence number | | Sequence number  8.4.2 | | M | | V | | 1 | |
|  | | LSB of KNRP ID | | LSB of KNRP ID  8.4.21 | | M | | V | | 2 | |