**3GPP TSG-RAN WG2 Meeting #114-e *R2-2106615***

**Electronic, 19th May– 27th May, 2021**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **38.331** | **CR** | **xxxx** | **rev** |  | **Current version:** | **16.4.1** |  |
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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 | **x** | Core Network |  |

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| ***Title:***  | Clarification on SL-SRB1 integrity check failure handling |
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| ***Source to WG:*** | vivo |
| ***Source to TSG:*** | R2 |
|  |  |
| ***Work item code:*** | 5G\_V2X\_NRSL-Core |  | ***Date:*** | 2021-05-25 |
|  |  |  |  |  |
| ***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 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:*** | According to current specifaction, how to handle the integrity check failure on SL-SRB1 is missing. Based on the outcome of the offline [AT114-e][702][V2X/SL] SL-SRB1 integrity check failure handling (vivo), it is proposed to clarify that the integrity check failure on SL-SRB1 will be forwarded to the upper layer and the upper layer will handle it. |
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| ***Summary of change:*** | In 5.8.9.3, add a NOTE to clarify that the integrity check failure on SL-SRB1 will be forwarded to the upper layer and the upper layer will handle it.**Impact analysis****Impacted 5G architecture options:** Standalone and Non-Standalone**Impacted functionality:**Sidelink RRC**Inter-operability:** If the network is implemented according to this CR while the UE is not, there is no inter-operability issue.If the UE is implemented according to this CR while the network is not, there is no inter-operability issue.If one UE is implemented according to this CR while the other UE is not, there is no inter-operability issue. |
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| ***Consequences if not approved:*** | UE behaviour is unclear upon detecting SL-SRB1 integrity check failure. |
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| ***Clauses affected:*** | 5.8.9.3  |
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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 ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

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| START OF CHANGE |

#### 5.8.9.3 Sidelink radio link failure related actions

The UE shall:

1> upon indication from sidelink RLC entity that the maximum number of retransmissions for a specific destination has been reached; or

1> upon T400 expiry for a specific destination; or

1> upon indication from MAC entity that the maximum number of consecutive HARQ DTX for a specific destination has been reached; or

1> upon integrity check failure indication from sidelink PDCP entity concerning SL-SRB2 or SL-SRB3 for a specific destination:

2> consider sidelink radio link failure to be detected for this destination;

2> release the DRBs of this destination, in according to sub-clause 5.8.9.1a.1;

2> release the SRBs of this destination, in according to sub-clause 5.8.9.1a.3;

2> discard the NR sidelink communication related configuration of this destination;

2> reset the sidelink specific MAC of this destination;

2> consider the PC5-RRC connection is released for the destination;

2> indicate the release of the PC5-RRC connection to the upper layers for this destination (i.e. PC5 is unavailable);

2> if UE is in RRC\_CONNECTED:

3> perform the sidelink UE information for NR sidelink communication procedure, as specified in 5.8.3.3;

NOTE: It is up to UE implementation on whether and how to indicate to upper layers to maintain the keep-alive procedure [55].

NOTEX: In case of integrity check failure indication from sidelink PDCP entity concerning SL-SRB1 for a specific destination, the UE will forward the indication to upper layers and leave it to upper layers handling as specified in TS 24.587 [57].

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| END OF CHANGE |