**3GPP TSG- Meeting #10-eR2-** **2005958**

**Electronic Meeting, 1st– 12th June 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **00** | **CR** | **XXXX** | **rev** | **-** | **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:*** | Correction for NR sidelink communication | | | | | | | | | |
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| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | R2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** |  | | | | |  | ***Date:*** | | | 2020-06-03 |
|  |  | | | |  | |  | | |  |
| ***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-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:*** | | 1. Introduce a new subclause in clause 23 and move the descriptions for “E-UTRAN control for NR sidelink communication” into this new subclause. 2. For E-UTRAN control for NR sidelink communication, add the restriction that the prioritization between E-UTRA UL transmission and NR SL transmission, if needed, is performed based on the priorities in the sidelink MAC PDU only, except that the UL transmission is prioritized by upper layer as specified in TS 24.386 or random access procedure is performed. | | | | | | | | |
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| ***Summary of change:*** | | Change 1):   * Section 23.14.1.0, remove “NR sidelink communication may be used to support other services than V2X services.” * Section 23.14.1.3, move the whole section to the new subclause 23.X   Change 2):   * Add “The prioritization between EUTRA UL transmission and NR SL transmission, if needed, is performed based on the priorties in the sidelink MAC PDU only, except that the UL transmission is prioritized by upper layer as specified in TS 24.386 [75] or random access procedure is performed.” in the new subclause 23.X. | | | | | | | | |
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| ***Consequences if not approved:*** | | The description of E-UTRA controlled NR sidelink communication is captured under section 23.14 “support for V2X services”, while NR sidelink communication can be used to support services other than V2X. How it is structured now may cause confusions. | | | | | | | | |
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| ***Clauses affected:*** | | 23.14.1.0, 23.14.1.3 | | | | | | | | |
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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 ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

START OF THE CHANGE

23.14 Support for V2X services

23.14.1 General

23.14.1.0 Overview

Vehicular communication services, represented by V2X services, can consist of the following four different types: V2V, V2I, V2N and V2P, as specified in TS 22.185 [71].

V2X services can be provided by PC5 interface and/or Uu interface. Support of V2X services via PC5 interface is provided by V2X sidelink communication as specified in TS 23.285 [72] and/or NR sidelink communication as specified in TS 23.287 [93], which are modes of communication whereby UEs can communicate with each other directly over the PC5 interface. Both communications mode may be supported when the UE is served by E-UTRAN and when the UE is outside of E-UTRA coverage. Only the UEs authorised to be used for V2X services can perform V2X sidelink communication and/or NR sidelink communications for V2X services.

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23.18 PDCP packet duplication

PDCP packet duplication is configured for a RB by RRC where two logical channels are configured for the RB. The two logical channels can either belong to the same MAC entity (referred to as CA duplication) or different MAC entities (referred to as DC duplication). When activated, PDCP packet duplication allows sending the same PDCP PDU on two independent transmission paths: via the primary RLC entity and a secondary RLC entity, thus increasing reliability and reducing latency.

PDCP packet duplication is supported in the following cases:

- for SRBs using RLC AM;

- for DRBs using RLC UM or AM.

For DRBs, duplication can be activated and deactivated by a MAC CE. In addition, for DRBs, PDCP packet duplication can be activated upon configuration by RRC signalling. For SRBs, once duplication is configured, it is always activated.

When PDCP packet duplication is activated, the associated logical channels are restricted to be sent only on certain serving cells to ensure the duplicates are sent on different serving cells. The restriction is lifted when PDCP packet duplication is deactivated. When CA duplication is configured for an SRB, one of the logical channels associated to the SRB is restricted to be sent only on the serving cells including SpCell.

At the receiver, PDCP enables reordering and duplication detection when PDCP packet duplication is configured.

When activating duplication for a DRB, E-UTRAN should ensure that at least one serving cell is activated for each logical channel of the DRB; and when the deactivation of SCells leaves no serving cells activated for a logical channel of the DRB, E-UTRAN should ensure that duplication is also deactivated.

23.X E-UTRAN control for NR sidelink communication

as in subclause 23.14.1.0

- The prioritization between EUTRA UL transmission and NR SL transmission, if needed, is performed based on the priorties in the sidelink MAC PDU only, except that the UL transmission is prioritized by upper layer as specified in TS 24.386 [75] or random access procedure is performed.

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