**3GPP TSG-RAN WG2 Meeting #124 R2-2313692**

**Chicago, USA, 13th Nov. – 17th Nov. 2023**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **38.322** | **CR** | **0053** | **rev** | **1** | **Current version:** | **17.3.0** |  |
|  |
| *For* [***HELP***](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:***  | Introduction of XR Enhancements |
|  |  |
| ***Source to WG:*** | vivo |
| ***Source to TSG:*** | R2 |
|  |  |
| ***Work item code:*** | NR\_XR\_enh-Core |  | ***Date:*** | 2023-12-01 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-18 |
|  | *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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
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| ***Reason for change:*** | In Rel-18, new functionalities were agreed for NR to provide enhanced support of XR services, which require RLC protocol modifications.RAN2 has agreed to report DSR including the burrfer status associated with the remaining time. Thus, 1. Delay critical RLC SDU should be added.
2. The data volume calculation for DSR should be added.
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| ***Summary of change:*** | 1. In 3.1, add the definition for delay-critical RLC SDU
2. In 5.5, add the data volume calculation for DSR
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| ***Consequences if not approved:*** | NR enhancements related to XR services for DSR cannot be supported in Rel-18. |
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| ***Clauses affected:*** | 3.1, 5.5 |
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|  | **Y** | **N** |  |  |
| ***Other specs*** | **X** |  |  Other core specifications  | TS/TR 38.300 CR 0724TS/TR 38.306 CR 1015TS/TR 38.321 CR 1698TS/TR 38.323 CR 0128TS/TR 38.331 CR 4436TS/TR 38.331 CR 4510 |
| ***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 change

# 3 Definitions, symbols and abbreviations

## 3.1 Definitions

For the purposes of the present document, the terms and definitions given in TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in TR 21.905 [1].

**Data field element:** An RLC SDU or an RLC SDU segment that is mapped to the Data field.

**Delay-critical RLC SDU:** RLC SDU corresponding to a PDCP PDU indicated as delay-critical by PDCP (see TS 38.323 [4].

**NR sidelink communication**: AS functionality enabling at least V2X Communication as defined in TS 23.287 [6] and ProSe communication (including ProSe non-Relay and UE-to-Network Relay communication) as defined in TS 23.304 [8], between two or more nearby UEs, using NR technology but not traversing any network node.

**NR sidelink discovery**: AS functionality enabling ProSe non-Relay Discovery and ProSe UE-to-Network Relay discovery for Proximity based Services as defined in TS 23.304 [8] between two or more nearby UEs, using NR technology but not traversing any network node.

**RLC data volume:** The amount of data available for transmission in an RLC entity.

**RLC SDU segment:** A segment of an RLC SDU.

Next change

## 5.5 Data volume calculation

For the purpose of MAC buffer status reporting, the UE shall consider the following as RLC data volume:

- RLC SDUs and RLC SDU segments that have not yet been included in an RLC data PDU;

- RLC data PDUs that are pending for initial transmission;

- RLC data PDUs that are pending for retransmission (RLC AM).

For the purpose of MAC delay status reporting, the UE shall consider the following as delay-critical RLC data volume:

- delay-critical RLC SDUs and delay-critical RLC SDU segments that have not yet been included in an RLC data PDU;

- RLC data PDUs pending for initial transmission, and containing a delay-critical RLC SDU or a delay-critical RLC SDU segment;

- RLC data PDUs that are pending for retransmission (RLC AM).

In addition, if a STATUS PDU has been triggered and *t-StatusProhibit* is not running or has expired, the UE shall estimate the size of the STATUS PDU that will be transmitted in the next transmission opportunity, and consider this as part of RLC data volume for MAC buffer status reporting and as part of delay-critical RLC data volume for MAC delay status reporting.