**3GPP TSG-RAN WG2 Meeting #118-e *R2-220xxxx***

**Electronic, 9th - 20th May 2022**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.323** | **CR** | **0094** | **rev** | **1** | **Current version:** | **17.0.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network | **X** | Core Network |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Corrections to UDC | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Lenovo | | | | | | | | | |
| ***Source to TSG:*** | R2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_UDC-Core | | | | |  | ***Date:*** | | | 2022-05-16 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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. When the UDC PDCP CR0087r1 (R2-2204094) was implemented it was missed to update the value range of the reserved bits for PDU type in clause 6.3.8. 2. In Figure B.2.1-1 showing the format of UDC header and UDC data block the ellipsis is missing to indicate that the size of UDC data block can take more than 1 octet. 3. Some editorial issues need to be fixed (e.g. replacing “upper layer” to “upper layers” and “clause” to “Annex”). | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1. In clause 6.3.8 the value range of the reserved bits for PDU type has been updated. 2. Figure B.2.1-1 has been revised by adding ellipsis to indicate that the size of UDC data block can take more than 1 octet. 3. Some editorial issues have been fixed. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The specification of UDC in TS 38.323 remains incomplete. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.14.2, 6.3.8, B.1, B.2.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

*Start of changes*

### 5.14.2 Configuration of UDC

The PDCP entities associated with DRBs can be configured by upper layers, see TS 38.331 [3], to use UDC. If UDC is configured, the UE shall apply UDC compression function (details see Annex B) to process the received PDCP SDU from upper layers corresponding to the configured DRB. The size of compression buffer is configured by upper layers via *bufferSize*. If pre-defined dictionary is configured by upper layers, the UE shall first set the compression buffer to all zeros and then prefill the configured pre-defined dictionary in the compression buffer upon configuration of UDC. If pre-defined dictionary is not configured by upper layers, UE shall set the compression buffer to all zeros.

*Next change*

### 6.3.8 PDU type

Length: 3 bits

This field indicates the type of control information included in the corresponding PDCP Control PDU.

Table 6.3.8-1: PDU type

|  |  |
| --- | --- |
| Bit | Description |
| 000 | PDCP status report |
| 001 | Interspersed ROHC feedback |
| 010 | EHC feedback |
| 011 | UDC feedback |
| 100-111 | Reserved |

*Next change*

Annex B (normative):  
Uplink Data Compression Protocol

# B.1 UDC general description

A UDC packet consists of a UDC header and a UDC data block. A UDC data block contains either DEFLATE compressed blocks generated by UDC protocol or original PDCP SDU for SDU not compressed by UDC protocol; the type is specified in FU field (details see Annex B.2.2.1) in UDC header. The FR field (details see Annex B.2.2.2) and the Checksum field (details see Annex B.2.2.3) in UDC header are used only if FU field is set to 1.

If reset procedure is triggered, after performing the reset, the FR field in UDC header of the first compressed PDU shall be set to 1.

NOTE: UE is allowed not to compress the PDCP SDUs if the UL data rate before compression is higher than what the UE is capable of.

# B.2 UDC packet format and parameters

## B.2.1 UDC Header and UDC Data Block format

Figure B.2.1-1 shows the format of UDC Header and UDC Data Block.



Figure B.2.1-1: UDC header and UDC data block format

*End of changes*