**3GPP TSG-RAN WG3 Meeting #111-eR3-210428**

**Online, January 25th – February 4th 2021**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** | **0019** | **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 |  | Radio Access Network | **x** | Core Network |  |

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|  | | | | | | | | | | |
| ***Title:*** | UE support for D1 part of UL Delay | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson, Huawei | | | | | | | | | |
| ***Source to TSG:*** | RAN3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI16 | | | | |  | ***Date:*** | | | 2021-01-14 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | In current specification it is unclear if the UL Delay result includes the D1 part or not | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Addition of one flag in UL PDU SESSION INFORMATION to signal if UL delay includes or not includes the D1 part | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | It is unclear if the UL Delay Result includes or not the D1 part. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.5.2.2, 5.5.3.xx (new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | Rev1: corrections on IE description | | | | | | | | |

//////////////////////////////////////// Change Start ////////////////////////////////////////////////

#### 5.5.2.2 UL PDU SESSION INFORMATION (PDU Type 1)

This frame format is defined to allow the UPF to receive some control information elements which are associated with the transfer of a packet over the interface.

The following shows the respective UL PDU SESSION INFORMATION frame.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Bits | | | | | | | | | | Number of Octets |
| 7 | | 6 | 5 | 4 | 3 | | 2 | 1 | 0 |
| PDU Type (=1) | | | | | QMP | DL Delay Ind. | | UL Delay Ind. | SNP | 1 |
| N3/N9 Delay Ind. | D1 UL PDCPDelay Result Ind | | QoS Flow Identifier | | | | | | | 1 |
| DL Sending Time Stamp Repeated | | | | | | | | | | 0 or 8 |
| DL Received Time Stamp | | | | | | | | | | 0 or 8 |
| UL Sending Time Stamp | | | | | | | | | | 0 or 8 |
| DL Delay Result | | | | | | | | | | 0 or 4 |
| UL Delay Result | | | | | | | | | | 0 or 4 |
| UL QFI Sequence Number | | | | | | | | | | 0 or 3 |
| N3/N9 Delay Result | | | | | | | | | | 0 or 4 |
| Padding | | | | | | | | | | 0-3 |

Figure 5.5.2.2-1: UL PDU SESSION INFORMATION (PDU Type 1) Format

//////////////////////////////////////// Next change ////////////////////////////////////////////////

#### 5.5.3.xx D1 UL PDCP Delay Result Ind

**Description:** This parameter indicates if the UL Delay Result includes or not includes the D1 measurement (UL PDCP Packet Average Delay). This parameter is only present if the UL Delay Ind is present and set to 1.

**Value range:** {0= D1 UL PDCP Packet Average Delay measurement is not included, 1= D1 UL PDCP Packet Average Delay measurement is included}.

**Field length:** 1 bit.

//////////////////////////////////////// Change End ////////////////////////////////////////////////