**3GPP TSG-RAN WG3 Meeting #114bis-e *R3-22xxxx***

**E-meeting, 17-26 Jan 2022**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **38.463** | **CR** | **0672** | **rev** | **1** | **Current version:** | **16.8.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **X** | Core Network |  |

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| ***Title:*** | Downlink unmapped QoS flows for E1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, Nokia, Nokia Shanghai Bell | | | | | | | | | |
| ***Source to TSG:*** | R3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_newRAT-Core, TEI16 | | | | |  | ***Date:*** | | | 2022-01-17 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | The reply LS from RAN2 in R2-2111492 indicates that it is up to gNB implementation to deliver DL packets to UE via any configured DRB of the PDU session before the new QFI to DRB mapping is configured for the QoS flow.  However, in case of CU-CP/CU-UP split architecture, the gNB-CU-UP behavior is unclear as tohow the DL QoS flow packets are delivered before the QFI to DRB mapping configuration is provided by the gNB-CU-CP, as discussed at R3-220988. | | | | | | | | |
|  | |  | | | | | | | | |
| Summary of change: | | * Clarify Specify whether or how the gNB-CU-UP delivers the DL packets including a QFI value not configured by the gNB-CU-CP.   Impact Analysis:  Impact assessment towards the previous version of the specification (same release):  This CR has isolated impact with the previous version of the specification (same release).  The impact can be considered isolated because the change only affects the DL QoS flow data transfer without the QoS flow to DRB mapping. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | It is unclear whether or how to deliver those DL QoS flow packets without the QoS flow to DRB maping at the CU-UP side. | | | | | | | | |
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| ***Clauses affected:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | Rev0: R3-220669  Rev1: R3-22xxxx  Revert the changes;  Add a note to specify whether or how the gNB-CU-UP delivers the downlink unmapped QoS flows. | | | | | | | | |

*Change Begins*

### 8.3.7 DL Data Notification

#### 8.3.7.1 General

This procedure is initiated by the gNB-CU-UP to indicate the detection of DL data arrival for the UE, or indicate that a DL packet including a QFI value in the NG-U header not configured by the *QoS Flows Information To Be Setup* IE or the *Flow Mapping Information* IE is received for the first time. The procedure uses UE-associated signalling.

#### 8.3.7.2 Successful Operation



Figure 8.3.7.2-1: DL Data Notification procedure: Successful Operation.

The gNB-CU-UP initiates the procedure by sending the DL DATA NOTIFICATION message to the gNB-CU-CP.

If the *PPI* IE is included in the DL DATA NOTIFICATION message, the gNB-CU-CP shall use it for paging policy differentiation.

If the *PDU Session To Notify List* IE is included in the DL DATA NOTIFICATION message, the gNB-CU-CP shall, if supported, either map the flow(s) included in *PDU Session To Notify List* IE to the existing DRB or establish a new DRB for the flow(s).

**Interaction with the Bearer Context Setup and Bearer Context Modification (gNB-CU-CP initiated)**

If the procedure was initiated due to the gNB-CU-UP having received DL packet(s) including a QFI value in the NG-U header not configured by the *QoS Flows Information To Be Setup* IE, the gNB-CU-UP may, if supported, deliver the DL data via any existing configured DRB prior to receiving a new QoS flow to DRB mapping configuration via a separate Bearer Context Modification procedure.

#### 8.3.7.3 Abnormal Conditions

Not applicable.

**<Unchanged Text Omitted>**

*Change Ends*