**3GPP TSG-RAN WG3 Meeting #114b-e *R3-221191***

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

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **36.423** | **CR** | **1664** | **rev** | **1** | **Current version:** | 16.8.0 |  |
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| *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 | **X** |

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| ***Title:***  | Correction of indirect data forwarding for MR-DC |
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| ***Source to WG:*** | Huawei, China Telecom, China Unicom, Deutsche Telekom |
| ***Source to TSG:*** | R3 |
|  |  |
| ***Work item code:*** | NR\_newRAT-Core, TEI16 |  | ***Date:*** | 2021-01-17 |
|  |  |  |  |  |
| ***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 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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
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| ***Reason for change:*** | For the data forwarding for SN-terminated bearers, and for handover from the ENDC to SA, * the data forwarding can happen from the source SgNB to the target gNB (i.e. source SgNB->SGW(PGW)->UPF->target gNB).

While in the current ENDC procedures, the forwarding addresses are described as the X2 transport bearer used for forwarding of DL/UL PDUs, e.g, as excerpted from the SGNB RELEASE REQUEST message below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| >>>>DL Forwarding GTP Tunnel Endpoint | O |  | GTP Tunnel Endpoint 9.2.1 | Identifies the **X2** transport bearer used for forwarding of DL PDUs |
| >>>>UL Forwarding GTP Tunnel Endpoint | O |  | GTP Tunnel Endpoint 9.2.1 | Identifies the **X2** transport bearer used for forwarding of UL PDUs |

It can be observed that this semantic descriptions highly restrict that the data forwarding happens only via the MN for SN-terminated bearers.   |
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| ***Summary of change:*** | * Update the semantic descriptions for *UL Forwarding GTP Tunnel Endpoint* IE and *DL Forwarding GTP Tunnel Endpoint* IE to remove the restriction of the data forwarding only via the MN.

 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) because it is related to the data forwarding invovling MR-DC.The impact can be considered isolated because the change only affects the data forwarding related to the SN. |
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| ***Consequences if not approved:*** | The data forwarding has to be relayed by the MN for SN-terminated bearers during handover, which is inefficient.  |
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| ***Clauses affected:*** | 9.1.4.11 |
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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 ...  |
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| ***Other comments:*** |  |
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| ***This CR's revision history:*** | Rev0: R3-220690Rev1: R3-221191 Revert the changes; Update the semantic descriptions based on the online discussion.  |

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| **Change Begins** |

**<Unchanged Text Omitted>**

#### 9.1.4.11 SGNB RELEASE REQUEST

This message is sent by the MeNB to the en-gNB to request the release of resources.

Direction: MeNB → en-gNB.

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| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| Message Type | M |  | 9.2.13 |  | YES | ignore |
| MeNB UE X2AP ID | M |  | eNB UE X2AP ID9.2.24 | Allocated at the MeNB. | YES | reject |
| SgNB UE X2AP ID | O |  | en-gNB UE X2AP ID9.2.100 | Allocated at the en-gNB. | YES | reject |
| Cause | M |  | 9.2.6 |  | YES | ignore |
| **E-RABs To Be Released List** |  | *0..1* |  |  | YES | ignore |
| **>E-RABs To Be Released Item** |  | *1 .. <maxnoofBearers>* |  |  | EACH | ignore |
| >>E-RAB ID | M |  | 9.2.23 |  | – |  |
| >>EN-DC Resource Configuration | M |  | EN-DC Resource Configuration9.2.108 | Indicates the PDCP and Lower Layer MCG/SCG configuration. | – |  |
| >>CHOICE *Resource Configuration* | M |  |  |  |  |  |
| >>>*PDCP present in SN* |  |  |  | This choice tag is used if the *PDCP at SgNB* IE in the *EN-DC Resource Configuration* IE is set to the value "present". |  |  |
| >>>>UL Forwarding GTP Tunnel Endpoint | O |  | GTP Tunnel Endpoint 9.2.1 | Identifies the transport bearer used for forwarding of UL PDUs | – |  |
| >>>>DL Forwarding GTP Tunnel Endpoint | O |  | GTP Tunnel Endpoint 9.2.1 | Identifies the transport bearer used for forwarding of DL PDUs | – |  |
| >>>*PDCP not present in SN* |  |  |  | This choice tag is used if the *PDCP at SgNB* IE in the *EN-DC Resource Configuration* IE is set to the value "not present". |  |  |
| UE Context Kept Indicator | O |  | 9.2.85 |  | YES | ignore |
| MeNB UE X2AP ID Extension | O |  | Extended eNB UE X2AP ID9.2.86 | Allocated at the MeNB | YES | reject |
| MeNB to SgNB Container | O |  | OCTET STRING | Includes the *CG-ConfigInfo* message as defined in TS 38.331 [31]. | YES | reject |
| E-RABs transferred to MeNB | O |  | E-RAB List9.2.28 | Indicates the target MeNB reconfigured the listed E-RABs as MN-terminated bearers. | YES | ignore |

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| Range bound | Explanation |
| maxnoofBearers | Maximum no. of E-RABs. Value is 256 |

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| **Change Ends** |