**3GPP TSG-RAN WG3 Meeting #123 R3-241032**

**Athens, Greece, Feb. 26th ~ Mar. 1st, 2024**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **37.483** | **CR** | **0105** | **rev** | **1** | **Current version:** | **18.0.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **X** | Core Network |  |

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| ***Title:*** | Clarification on data forwarding information provision for indirect data forwarding | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Samsung, China Telecom, CMCC, Cybercore | | | | | | | | | |
| ***Source to TSG:*** | R3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_newRAT-Core, TEI18 | | | | |  | ***Date:*** | | | 2024-02-29 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***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)* ***S*** *(adding to the sourcing companies’ CR statistics)*  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:*** | | To support indirect data forwarding from the source MN to the target SN via the target MN-CU-UP, the following two IEs are assumed to be used to provide the indirect forwarding address at T-SN-CU-UP side to T-MN-CU-UP for PDU session and DRB, respectively:   |  |  |  |  |  | | --- | --- | --- | --- | --- | | >PDU Session Data Forwarding Information | O |  | Data Forwarding Information  9.3.2.6 | Providing forwarding information to the source gNB-CU-UP. |  |  |  |  |  |  | | --- | --- | --- | --- | --- | | >>>DRB Data forwarding information | O |  | Data Forwarding Information  9.3.2.6 | Providing forwarding information to the source gNB-CU-UP. |   However, the current semantic restricts these two IEs for providing address to the source gNB-CU-UP. Thus, the semantic update for these two IEs are needed by considering the indirect data forwarding case. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Update the semantics description of *PDU Session Data Forwarding Information* IE and *DRB Data forwarding information* IE to indicate that it can be used to provide forwarding informaiton to the gNB-CU-UP. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The usage of *PDU Session Data Forwarding Information* IE and *DRB Data forwarding information* IE canot be used for indirect data forwarding. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 9.3.3.11 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 the Changes >>>>>>>>>>>>>>>>>>>>

#### 9.3.3.11 PDU Session Resource To Modify List

This IE contains PDU session resource to modify related information used at Bearer Context Modification Request

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| --- | --- | --- | --- | --- | --- | --- |
| **PDU Session Resource To Modify Item** |  | *1..<maxnoofPDUSessionResource>* |  |  | - | - |
| >PDU Session ID | M |  | 9.3.1.21 |  | - | - |
| >Security Indication | O |  | 9.3.1.23 | This IE is not used in this release. | - | - |
| >PDU Session Resource DL Aggregate Maximum Bit Rate | O |  | Bit Rate 9.3.1.20 |  | - | - |
| >NG UL UP Transport Layer Information | O |  | UP Transport Layer Information  9.3.2.1 |  | - | - |
| >PDU Session Data Forwarding Information Request | O |  | Data Forwarding Information Request  9.3.2.5 | Requesting forwarding information from the target gNB-CU-UP. | - | - |
| >PDU Session Data Forwarding Information | O |  | Data Forwarding Information  9.3.2.6 | Providing forwarding information to the gNB-CU-UP. | - | - |
| >PDU Session Inactivity Timer | O |  | Inactivity Timer  9.3.1.54 | Included if the Activity Notification Level is set to PDU Session. | - | - |
| >Network Instance | O |  | 9.3.1.62 | This IE is ignored if the *Common Network Instance* IE is included. | YES | ignore |
| >Common Network Instance | O |  | 9.3.1.66 |  | YES | ignore |
| **>DRB To Setup List** |  | *0..1* |  |  | - | - |
| **>>DRB To Setup Item** |  | *1..<maxnoofDRBs>* |  |  | - | - |
| >>>DRB ID | M |  | 9.3.1.16 |  | - | - |
| >>>SDAP Configuration | M |  | 9.3.1.39 |  | - | - |
| >>>PDCP Configuration | M |  | 9.3.1.38 |  | - | - |
| >>>Cell Group Information | M |  | 9.3.1.11 |  | - | - |
| >>>QoS Flow Information To Be Setup | M |  | QoS Flow QoS Parameters List  9.3.1.25 |  | - | - |
| >>>DRB Data Forwarding Information Request | O |  | Data Forwarding Information Request  9.3.2.5 | Requesting forwarding information from the target gNB-CU-UP. | - | - |
| >>>DRB Inactivity Timer | O |  | Inactivity Timer  9.3.1.54 | Included if the Activity Notification Level is set to DRB. | - | - |
| >>>PDCP SN Status Information | O |  | 9.3.1.58 | Provides the PDCP SN Status at setup after Resume to the target gNB-CU-UP. | - | - |
| >>>DRB QoS | O |  | 9.3.1.26 | Indicates the DRB QoS when more than one QoS Flow is mapped to the DRB | YES | ignore |
| >>>DAPS Request Information | O |  | 9.3.1.91 | This IE is not used in this version of the specification | YES | ignore |
| >>>Ignore Mapping Rule Indication | O |  | ENUMERATED (True, …) | Included if the QoS flow mapping rule for the DRB has not been decided by gNB-CU-CP. | YES | reject |
| >>>QoS Flows Remapping | O |  | ENUMERATED (update, source configuration, …) | This IE is not used in this version of the specification. | YES | reject |
| >>>SDT Indicator Setup | O |  | ENUMERATED (true, …) | Indicates that the DRB is for SDT. | YES | reject |
| **>DRB To Modify List** |  | *0.. 1* |  |  | - | - |
| **>>DRB To Modify Item** |  | *1..<maxnoofDRBs>* |  |  | - | - |
| >>>DRB ID | M |  | 9.3.1.16 |  | - | - |
| >>>SDAP Configuration | O |  | 9.3.1.39 |  | - | - |
| >>>PDCP Configuration | O |  | 9.3.1.38 |  | - | - |
| >>>DRB Data forwarding information | O |  | Data Forwarding Information  9.3.2.6 | Providing forwarding information to the gNB-CU-UP. | - | - |
| >>>PDCP SN Status Request | O |  | ENUMERATED (requested, …) | The gNB-CU-CP requests the gNB-CU-UP to provide the PDCP SN Status in the response message. | - | - |
| >>>PDCP SN Status Information | O |  | 9.3.1.58 | Provides the PDCP SN Status to the target gNB-CU-UP. | - | - |
| >>>DL UP Parameters | O |  | UP Parameters  9.3.1.13 |  | - | - |
| >>>Cell Group To Add | O |  | Cell Group Information  9.3.1.11 |  | - | - |
| >>>Cell Group To Modify | O |  | Cell Group Information  9.3.1.11 |  | - | - |
| >>>Cell Group To Remove | O |  | Cell Group Information  9.3.1.11 |  | - | - |
| >>>Flow Mapping Information | O |  | QoS Flow QoS Parameters List  9.3.1.25 | Overrides previous mapping information. | - | - |
| >>>DRB Inactivity Timer | O |  | Inactivity Timer  9.3.1.54 | Included if the Activity Notification Level is set to DRB. | - | - |
| >>>Old QoS Flow List - UL End Marker expected | O |  | QoS Flow List 9.3.1.12 | Indicates that the source NG-RAN node has initiated QoS flow re-mapping and has not yet received SDAP end markers, as described in TS 38.300 [8]. | YES | reject |
| >>>DRB QoS | O |  | 9.3.1.26 | Indicates the DRB QoS when more than one QoS Flow is mapped to the DRB | YES | ignore |
| >>>Early Forwarding COUNT Request | O |  | ENUMERATED (First DL count, DL discarding, …) | Requests early data forwarding information from the source gNB-CU-UP | YES | reject |
| >>>Early Forwarding COUNT Information | O |  | 9.3.1.92 | Provides early data forwarding information to the target gNB-CU-UP. | YES | reject |
| >>>DAPS Request Information | O |  | 9.3.1.91 | Used to request intra-gNB-CU-UP DAPS HO | YES | ignore |
| >>>Early Data Forwarding Indicator | O |  | ENUMERATED (stop, …) |  | YES | ignore |
| >>>SDT Indicator Modify | O |  | ENUMERATED (true, false, …) | Indicates that the DRB is for SDT or not. | YES | reject |
| >>>PDCP COUNT Reset | O |  | ENUMERATED (True, …) | Used for intra-gNB-CU-UP HO with full configuration | YES | reject |
| **>DRB To Remove List** |  | *0.. 1* |  |  | - | - |
| **>>DRB To Remove Item** |  | *1..<maxnoofDRBs>* |  |  | - | - |
| >>>DRB ID | M |  | 9.3.1.16 |  | - | - |
| >S-NSSAI | O |  | 9.3.1.9 |  | YES | reject |
| >Redundant NG UL UP Transport Layer Information | O |  | UP Transport Layer Information  9.3.2.1 |  | YES | ignore |
| >Redundant Common Network Instance | O |  | Common Network Instance  9.3.1.66 |  | YES | ignore |
| **>Data Forwarding to E-UTRAN Information List** |  | *0.. 1* |  | Contains a list of DL Data Forwarding tunnels and the associated QoS Flows to be forwarded on each tunnel | YES | ignore |
| **>>Data Forwarding to E-UTRAN Information List Item** |  | *1..<maxnoofDataForwardingTunneltoE-UTRAN>* |  |  | - | - |
| >>>Data forwarding tunnel information | M |  | UP Transport Layer Information  9.3.2.1 |  | - | - |
| >>>QoS Flows to be forwarded List |  | *1* |  |  | - | - |
| >>>>QoS Flows to be forwarded Item |  | *1..<maxnoofQoSflows>* |  |  | - | - |
| >>>>>QoS Flow Identifier | M |  | QoS Flow Identifier  9.3.1.24 |  | - | - |
| >Security Indication Modify | O |  | Security Indication  9.3.1.23 |  | YES | ignore |
| >Secondary PDU Session Data Forwarding Information | O |  | Data Forwarding Information  9.3.2.6 | Providing secondary forwarding information to the source gNB-CU-UP in case of split PDU session. | YES | ignore |