3GPP TSG-RAN WG3 Meeting #109-e R3-20xxxx

**Online, 17th – 27th August 2020**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.423** | **CR** | **<CR#>** | **rev** | **-** | **Current version:** | **15.8.0** |  |
|  | | | | | | | | |
| *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:*** | Missing QoS Flow Mapping Indication IE in PDU Session Resource Modification Info – SN terminated IE. | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | R3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_newRAT-Core | | | | |  | ***Date:*** | | | 2020-08-06 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-15 |
|  | *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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The tabular representation of the *PDU Session Resource Modification Info – SN terminated* IE is missing the *QoS Flow Mapping Indication* IE in the *QoS Flows To Be Setup List* IE, which does not align with ASN.1.  Further, the *Additional UL NG-U UP TNL Information at UPF List* IE is misplaced in the *PDU Session Resources To Be Setup List* IE | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | The *QoS Flow Mapping Indication* IE was added to the the *QoS Flows To Be Setup List* IE in the tabular representation of the *PDU Session Resource Modification Info – SN terminated* IE to align with ASN.1.  The *Additional UL NG-U UP TNL Information at UPF List* IE was put in the right order within the *PDU Session Resources To Be Setup List* IE in order to align with the order in ASN.1  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 corrects the tabular representation of the *PDU Session Resource Modification Info – SN terminated* IE, used in MR-DC signalling on Xn.  The impact can be considered isolated because the change affects a subset of MR-DC functions only.  The CR has no impact on ASN.1. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Tabular and ASN.1 would not be aligned. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 9.2.1.9 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS 38.423 CR ... Rel-16 | | |
| ***affected:*** | |  | **X** | Test specifications | | | |  | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | |  | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

<<<<<<<<<<<<<<<<<<<< First Change >>>>>>>>>>>>>>>>>>>>

#### 9.2.1.1 PDU Session Resources To Be Setup List

This IE contains PDU session resource related information used at UE context transfer between NG-RAN nodes.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | | Presence | | Range | | IE type and reference | | Semantics description | | Criticality | | Assigned Criticality | |
| **PDU Session Resources To Be Setup List** | |  | | *1* | |  | |  | | – | |  | |
| **>PDU Session Resources To Be Setup Item** | |  | | *1 .. <maxnoof PDU sessions >* | |  | |  | | – | |  | |
| >>PDU Session ID | | M | |  | | 9.2.3.18 | |  | | – | |  | |
| >>S-NSSAI | | M | |  | | 9.2.3.21 | |  | | – | |  | |
| >>PDU Session Resource Aggregate Maximum Bitrate | | O | |  | | PDU Session Aggregate Maximum Bit Rate  9.2.3.69 | | This IE shall be present when at least one Non-GBR QoS Flow has been setup. | | – | |  | |
| >>UL NG-U UP TNL Information at UPF | | M | |  | | UP Transport Layer Information 9.2.3.30 | | UPF endpoint of the NG-U transport bearer. For delivery of UL PDUs | | – | |  | |
| >>Source DL NG-U TNL Information | | O | |  | | UP Transport Layer Information 9.2.3.30 | | Indicates the possibility to keep the NG-U GTP-U tunnel termination point at the target NG-RAN node. | | – | |  | |
| >>Security Indication | | O | |  | | 9.2.3.52 | |  | | – | |  | |
| >>PDU Session Type | | M | |  | | 9.2.3.19 | |  | | – | |  | |
| >>Network Instance | | O | |  | | 9.2.3.85 | | This IE is ignored if the *Common Network Instance* IE is present. | | – | |  | |
| **>>QoS Flows To Be Setup List** | |  | | *1* | |  | |  | | – | |  | |
| **>>>QoS Flows To Be Setup Item** | |  | | *1 .. <maxnoofQoSFlows>* | |  | |  | | – | |  | |
| >>>>QoS Flow Identifier | | M | |  | | 9.2.3.10 | |  | | – | |  | |
| >>>>QoS Flow Level QoS Parameters | | M | |  | | 9.2.3.5 | |  | | – | |  | |
| >>>>E-RAB ID | | O | |  | | INTEGER (0..15, …) | |  | | – | |  | |
| >>Data Forwarding and Offloading Info from source NG-RAN node | | O | |  | | 9.2.1.17 | |  | | – | |  | |
| >>Additional UL NG-U UP TNL Information at UPF List | | O | |  | | Additional UP Transport Layer Information 9.2.1.32 | | Additional UPF endpoint of the NG-U transport bearer. For delivery of UL PDUs | | YES | | ignore | |
| >> Common Network Instance | | O | |  | | 9.2.3.92 | |  | | YES | | ignore | |

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofPDUSessions | Maximum no. of PDU sessions. Value is 256 |
| maxnoofQoSFlows | Maximum no. of QoS flows allowed within one PDU session. Value is 64. |

<<<<<<<<<<<<<<<<<<<< Next Change >>>>>>>>>>>>>>>>>>>>

#### 9.2.1.9 PDU Session Resource Modification Info – SN terminated

This IE contains information related to a PDU session resource for an M-NG-RAN node initiated request to modify DRBs configured with an SN terminated bearer option.

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| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| UL NG-U UP TNL Information at UPF | O |  | UP Transport Layer Information 9.2.3.30 | UPF endpoint of the NG-U transport bearer. For delivery of UL PDUs | – |  |
| Network Instance | O |  | 9.2.3.85 | This IE shall be ignored if the *Common Network Instance* IE is present. | – |  |
| **QoS Flows To Be Setup List** |  | *0..1* |  |  | – |  |
| **>QoS Flows To Be Setup Item** |  | *1 .. <maxnoofQoSFlows>* |  |  | – |  |
| >>QoS Flow Identifier | M |  | 9.2.3.10 |  | – |  |
| >>QoS Flow Level QoS Parameters | M |  | 9.2.3.5 | For GBR QoS flows, this IE contains GBR QoS flow information as received at NG-C | – |  |
| >>Offered GBR QoS Flow Information | O |  | GBR QoS Flow Information  9.2.3.6 | This IE contains M-Node offered GBR QoS Flow Information. | – |  |
| >>QoS Flow Mapping Indication | O |  | 9.2.3.79 |  | – |  |
| Data Forwarding and Offloading Info from source NG-RAN node | O |  | 9.2.1.17 | Applicable for the QoS flows contained in the *QoS Flows To Be Setup List* IE. | – |  |
| **QoS Flows To Be Modified List** |  | *0..1* |  |  | – |  |
| **>QoS Flows To Be Modified Item** |  | *1 .. <maxnoofQoSFlows>* |  |  | – |  |
| >>QoS Flow Identifier | M |  | 9.2.3.10 |  | – |  |
| >>QoS Flow Level QoS Parameters | O |  | 9.2.3.5 | For GBR QoS flows, this IE contains GBR QoS flow information as received at NG-C | – |  |
| >>Offered GBR QoS Flow Information | O |  | GBR QoS Flow Information  9.2.3.6 | This IE contains M-Node offered GBR QoS Flow Information. | – |  |
| QoS Flows To Be Released List |  | *0..1* | QoS Flow List with Cause  9.2.1.4 |  | – |  |
| **DRBs To Be Modified List** |  | *0..1* |  |  | – |  |
| **>DRBs to Be Modified Item** |  | *1 .. <maxnoofDRBs>* |  |  | – |  |
| >>DRB ID | M |  | 9.2.3.33 |  | – |  |
| >>MN DL CG UP TNL Information | O |  | UP Transport Parameters 9.2.3.76 | M-NG-RAN node GTP-U endpoint(s) of a DRB’s Xn transport bearer at its lower layer CG resource. For delivery of DL PDUs. | – |  |
| >>secondary MN DL CG UP TNL Information | O |  | UP Transport Parameters 9.2.3.76 | M-NG-RAN node GTP-U endpoint(s) of a DRB’s Xn transport bearer at its lower layer CG resource. For delivery of DL PDUs in case of PDCP duplication. | – |  |
| >>LCID | O |  | 9.2.3.70 | LCID for primary path if PDCP duplication is applied | – |  |
| >>RLC Status | O |  | 9.2.3.80 |  | – |  |
| DRBs To Be Released List | O |  | DRB List with Cause  9.2.1.28 |  | – |  |
| Common Network Instance | O |  | 9.2.3.92 |  | YES | ignore |
| Default DRB Allowed | O |  | 9.2.3.93 |  | YES | ignore |

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofQoSFlows | Maximum no. of QoS flows. Value is 64. |

<<<<<<<<<<<<<<<<<<<< End of Changes >>>>>>>>>>>>>>>>>>>>

<<<<<<<<<<<<<<<<<<<< begin of ASN.1 quote for information only >>>>>>>>>>>>>>>>>>>>

### 9.3.5 Information Element definitions

-- ASN1START

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-- Information Element Definitions

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XnAP-IEs {

itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)

ngran-access (22) modules (3) xnap (2) version1 (1) xnap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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-- PDU Session Resources To Be Setup List

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourcesToBeSetup-List ::= SEQUENCE (SIZE(1..maxnoofPDUSessions)) OF PDUSessionResourcesToBeSetup-Item

PDUSessionResourcesToBeSetup-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

s-NSSAI S-NSSAI,

pduSessionAMBR PDUSessionAggregateMaximumBitRate OPTIONAL,

uL-NG-U-TNLatUPF UPTransportLayerInformation,

source-DL-NG-U-TNL-Information UPTransportLayerInformation OPTIONAL,

securityIndication SecurityIndication OPTIONAL,

pduSessionType PDUSessionType,

pduSessionNetworkInstance PDUSessionNetworkInstance OPTIONAL,

qosFlowsToBeSetup-List QoSFlowsToBeSetup-List,

dataforwardinginfofromSource DataforwardingandOffloadingInfofromSource OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourcesToBeSetup-Item-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourcesToBeSetup-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-Additional-UL-NG-U-TNLatUPF-List CRITICALITY ignore EXTENSION Additional-UL-NG-U-TNLatUPF-List PRESENCE optional}|

{ ID id-PDUSessionCommonNetworkInstance CRITICALITY ignore EXTENSION PDUSessionCommonNetworkInstance PRESENCE optional},

...

}

<<<<<<<<<<<<<<<<<<<< Unmodified Text omitted >>>>>>>>>>>>>>>>>>>>

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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-- PDU Session Resource Modification Info - SN terminated

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourceModificationInfo-SNterminated ::= SEQUENCE {

uL-NG-U-TNLatUPF UPTransportLayerInformation OPTIONAL,

pduSessionNetworkInstance PDUSessionNetworkInstance OPTIONAL,

qosFlowsToBeSetup-List QoSFlowsToBeSetup-List-Setup-SNterminated OPTIONAL,

dataforwardinginfofromSource DataforwardingandOffloadingInfofromSource OPTIONAL,

qosFlowsToBeModified-List QoSFlowsToBeSetup-List-Modified-SNterminated OPTIONAL,

qoSFlowsToBeReleased-List QoSFlows-List-withCause OPTIONAL,

drbsToBeModifiedList DRBsToBeModified-List-Modified-SNterminated OPTIONAL,

dRBsToBeReleased DRB-List-withCause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourceModificationInfo-SNterminated-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourceModificationInfo-SNterminated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-PDUSessionCommonNetworkInstance CRITICALITY ignore EXTENSION PDUSessionCommonNetworkInstance PRESENCE optional}|

{ID id-DefaultDRB-Allowed CRITICALITY ignore EXTENSION DefaultDRB-Allowed PRESENCE optional},

...

}

QoSFlowsToBeSetup-List-Modified-SNterminated ::= SEQUENCE (SIZE(1..maxnoofQoSFlows)) OF QoSFlowsToBeSetup-List-Modified-SNterminated-Item

QoSFlowsToBeSetup-List-Modified-SNterminated-Item ::= SEQUENCE {

qfi QoSFlowIdentifier,

qosFlowLevelQoSParameters QoSFlowLevelQoSParameters OPTIONAL,

offeredGBRQoSFlowInfo GBRQoSFlowInfo OPTIONAL,

qosFlowMappingIndication QoSFlowMappingIndication OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {QoSFlowsToBeSetup-List-Modified-SNterminated-Item-ExtIEs} } OPTIONAL,

...

}

DRBsToBeModified-List-Modified-SNterminated ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF DRBsToBeModified-List-Modified-SNterminated-Item

DRBsToBeModified-List-Modified-SNterminated-Item ::= SEQUENCE {

drb-ID DRB-ID,

mN-DL-SCG-UP-TNLInfo UPTransportParameters OPTIONAL,

secondary-MN-DL-SCG-UP-TNLInfo UPTransportParameters OPTIONAL,

lCID LCID OPTIONAL,

rlc-status RLC-Status OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {DRBsToBeModified-List-Modified-SNterminated-Item-ExtIEs} } OPTIONAL,

...

}

DRBsToBeModified-List-Modified-SNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

<<<<<<<<<<<<<<<<<<<< end of ASN.1 quote for information only >>>>>>>>>>>>>>>>>>>>