**3GPP TSG-RAN WG3 Meeting #123 *R3-240983***

**Athens, Greece, 26th Feb – 1st Mar, 2024**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** |  | **rev** | **1** | **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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **x** | Core Network |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Correction on SLrelay | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, LG Electronics | | | | | | | | | |
| ***Source to TSG:*** | R3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_SL\_relay\_enh-Core | | | | |  | ***Date:*** | | | 2024-02-16 |
|  |  | | | |  | |  | | |  |
| ***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)*  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:*** | | 1. The PC5 RLC channel is reused in Rel-18 L2 U2U relay, thus the DU should provide the PC5 RLC channel configuration based on the information from the CU. However, the only QoS Flow Level QoS Parameters are associated with the PC5 RLC channel in F1 interface, while the PC5 QoS parameters are missing. 2. Missing definition and abbreviations 3. Minor editorial in semantics | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1. Introduce the U2U RLC QoS referring to a PC5 RLC QoS in the UE CONTEXT SETUP REQUEST message and UE CONTEXT MODIFICATION REQUEST message from gNB-CU to gNB-DU and modified related text. 2. Added definitions and abbreviations 3. Clarified the semantic description in 9.3.1.296 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | 1. Configuration of PC5 RLC channel for L2 U2U relay on F1 is not supported. 2. Definitions and abbreviations missing | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 3.1, 3.2, 8.3.1.2, 8.3.4.2, 9.2.2.1, 9.2.2.2, 9.2.2.7, 9.2.2.8, 9.2.2.10, 9.2.2.11, 9.3.1.122, 9.3.1.127, 9.3.1.265, 9.3.1.296, 9.4.5, 9.4.7 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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: added additional apsects captured in the meeting. | | | | | | | | |

3 Definitions and abbreviations

3.1 Definitions

[snip]

**U2N Remote UE:** a UE that communicates with the network via a U2N Relay UE.

**U2U Relay UE**: as defined in TS 38.300 [6].

**U2U Remote UE**: as defined in TS 38.300 [6].

**Uu Relay RLC channel:** as defined in TS 38.300 [6].

[snip]

3.2 Abbreviations

[snip]

U2N UE-to-Network

U2U UE-to-UE

UL-AoA Uplink Angle of Arrival

[snip]

8.3.1.2 Successful Operation

[snip]

If the *PC5 RLC Channel To Be Setup List* IE is contained in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, act as specified in TS 38.401 [4]. gNB-DU generates the PC5 Relay RLC channel configurations for a L2 U2N Remote UE, a L2 U2U Remote UE or a L2 U2U Relay UE.

[snip]

8.3.4.2 Successful Operation

[snip]

If the *PC5 RLC Channel To Be Setup List* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, act as specified in TS 38.401 [4]. gNB-DU generates the PC5 Relay RLC channel configurations for a L2 U2N Remote UE, U2N Relay UE, a L2 U2U Remote UE or a L2 U2U Relay UE. If the F1AP-IDs are associated with a U2N Relay UE, the *PC5 RLC Channel to be Setup Item IEs* IE shall include the *Remote UE Local ID* and correspondingly, the *PC5 RLC Channel Setup Item IEs* IE and the *PC5 RLC Channel Failed to be Setup Item* IE in the UE CONTEXT MODIFICATION RESPONSE message shall include the *Remote UE Local ID* IE.

If the *PC5 RLC Channel To Be Modified List* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, act as specified in TS 38.401 [4]. gNB-DU generates the PC5 Relay RLC channel configurations for a L2 U2N Remote UE , U2N Relay UE, a L2 U2U Remote UE or a L2 U2U Relay UE. If the F1AP-IDs are associated with a U2N Relay UE, the *PC5 RLC Channel to be Modified Item IEs* IE shall include the *Remote UE Local ID* IE and correspondingly, the *PC5 RLC Channel Modified Item* *IEs* IE and the *PC5 RLC Channel Failed to be Modified Item IEs* IE in the UE CONTEXT MODIFICATION RESPONSE message shall include the *Remote UE Local ID* IE.

[snip]

### 9.2.2 UE Context Management messages

#### 9.2.2.1 UE CONTEXT SETUP REQUEST

This message is sent by the gNB-CU to request the setup of a UE context.

Direction: gNB-CU → gNB-DU.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| --- | --- | --- | --- | --- | --- | --- |
| Message Type | M |  | 9.3.1.1 |  | YES | reject |
| gNB-CU UE F1AP ID | M |  | 9.3.1.4 |  | YES | reject |
| gNB-DU UE F1AP ID | O |  | 9.3.1.5 |  | YES | ignore |
| SpCell ID | M |  | NR CGI 9.3.1.12 | Special Cell as defined in TS 38.321 [16]. For handover case, this IE is considered as target cell. | YES | reject |
| ServCellIndex | M |  | INTEGER (0..31,...) |  | YES | reject |
| SpCell UL Configured | O |  | Cell UL Configured  9.3.1.33 |  | YES | ignore |
| CU to DU RRC Information | M |  | 9.3.1.25 |  | YES | reject |
| **Candidate SpCell List** |  | *0..1* |  |  | YES | ignore |
| **>Candidate SpCell Item IEs** |  | *1 .. <maxnoofCandidateSpCells>* |  |  | EACH | ignore |
| >>Candidate SpCell ID | M |  | NR CGI 9.3.1.12 | Special Cell as defined in TS 38.321 [16] | - |  |
| DRX Cycle | O |  | DRX Cycle  9.3.1.24 |  | YES | ignore |
| Resource Coordination Transfer Container | O |  | OCTET STRING | Includes the *MeNB Resource Coordination Information* IE as defined in subclause 9.2.116 of TS 36.423 [9] for EN-DC case or *MR-DC Resource Coordination Information* IE as defined in TS 38.423 [28] for NGEN-DC and NE-DC cases. | YES | ignore |
| **SCell To Be Setup List** |  | *0..1* |  |  | YES | ignore |
| **>SCell to Be Setup Item IEs** |  | *1.. <maxnoofSCells>* |  |  | EACH | ignore |
| >>SCell ID | M |  | NR CGI 9.3.1.12 | SCell Identifier in gNB | - |  |
| >>SCellIndex | M |  | INTEGER (1..31) |  | - |  |
| >>SCell UL Configured | O |  | Cell UL Configured  9.3.1.33 |  | - |  |
| >>servingCellMO | O |  | INTEGER (1..64) |  | YES | ignore |
| **SRB to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>SRB to Be Setup Item IEs** |  | *1 .. <maxnoofSRBs>* |  |  | EACH | reject |
| >>SRB ID | M |  | 9.3.1.7 |  | - |  |
| >>Duplication Indication | O |  | ENUMERATED (true, ..., false) | If included, it should be set to true.  This IE is ignored if the *Additional Duplication Indication* IE is present. | - |  |
| >>Additional Duplication Indication | O |  | ENUMERATED (three, four, …) |  | YES | ignore |
| >>SDT RLC Bearer Configuration | O |  | OCTET STRING | Includes the *RLC-BearerConfig* IE defined in subclause 6.3.2 of TS 38.331 [8] | YES | ignore |
| >>SRB Mapping Info | O |  | Uu RLC Channel ID 9.3.1.266 | This IE contains the mapped Uu Relay RLC CH ID for the SRB | YES | ignore |
| **DRB to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>DRB to Be Setup Item IEs** |  | *1 .. <maxnoofDRBs>* |  |  | EACH | reject |
| >>DRB ID | M |  | 9.3.1.8 |  | - |  |
| >>CHOICE *QoS Information* | M |  |  |  | - |  |
| *>>>E-UTRAN QoS* |  |  |  |  |  |  |
| >>>>E-UTRAN QoS | M |  | 9.3.1.19 | Shall be used for EN-DC case to convey E-RAB Level QoS Parameters | - |  |
| *>>>DRB Information* |  |  |  |  |  |  |
| **>>>>DRB Information** |  | *1* |  | Shall be used for NG-RAN cases | YES | ignore |
| >>>>>DRB QoS | M |  | 9.3.1.45 |  | - |  |
| >>>>>S-NSSAI | M |  | 9.3.1.38 |  | - |  |
| >>>>>Notification Control | O |  | 9.3.1.56 |  | - |  |
| **>>>>>Flows Mapped to DRB Item** |  | *1 .. <maxnoofQoSFlows>* |  |  | - |  |
| >>>>>>QoS Flow Identifier | M |  | 9.3.1.63 |  | - |  |
| >>>>>>QoS Flow Level QoS Parameters | M |  | 9.3.1.45 |  | - |  |
| >>>>>>QoS Flow Mapping Indication | O |  | 9.3.1.72 |  | YES | ignore |
| >>>>>>TSC Traffic Characteristics | O |  | 9.3.1.141 | Traffic pattern information associated with the QFI. Details in TS 23.501 [21]. | YES | ignore |
| >>>>ECN Marking or Congestion Information Reporting Request | O |  | 9.3.1.321 |  | YES | ignore |
| **>>UL UP TNL Information to be setup List** |  | *1* |  |  | - |  |
| **>>>UL UP TNL Information to Be Setup Item IEs** |  | *1 .. <maxnoofULUPTNLInformation>* |  |  | - |  |
| >>>>UL UP TNL Information | M |  | UP Transport Layer Information  9.3.2.1 | gNB-CU endpoint of the F1 transport bearer. For delivery of UL PDUs. | - |  |
| >>>>BH Information | O |  | 9.3.1.114 |  | YES | ignore |
| >>>>DRB Mapping Info | O |  | Uu RLC Channel ID 9.3.1.266 | This IE contains the mapped Uu Relay RLC CH ID of the DL tunnel corresponding to such UL tunnel | YES | ignore |
| >>RLC Mode | M |  | 9.3.1.27 |  | - |  |
| >>UL Configuration | O |  | UL Configuraiton  9.3.1.31 | Information about UL usage in gNB-DU. | - |  |
| >>Duplication Activation | O |  | 9.3.1.36 | Information on the initial state of CA based UL PDCP duplication.  This IE is ignored if the *RLC Duplication Information* IE is present. | - |  |
| >>DC Based Duplication Configured | O |  | ENUMERATED (true, ..., false) | Indication on whether DC based PDCP duplication is configured or not. If included, it should be set to true. | YES | reject |
| >>DC Based Duplication Activation | O |  | Duplication Activation  9.3.1.36 | Information on the initial state of DC basedUL PDCP duplication.  This IE is ignored if the *RLC Duplication Information* IE is present. | YES | reject |
| >>DL PDCP SN length | M |  | ENUMERATED (12bits, 18bits, ...) |  | YES | ignore |
| >>UL PDCP SN length | O |  | ENUMERATED (12bits, 18bits, ...) |  | YES | ignore |
| **>>Additional PDCP Duplication TNL List** |  | *0..1* |  |  | YES | ignore |
| **>>>Additional PDCP Duplication TNL Items** |  | *1 .. <maxnoofAdditionalPDCPDuplicationTNL>* |  |  | EACH | ignore |
| >>>>Additional PDCP Duplication UP TNL Information | M |  | UP Transport Layer Information  9.3.2.1 | gNB-CU endpoint of the F1 transport bearer. For delivery of UL PDUs. | - |  |
| >>>>BH Information | O |  | 9.3.1.114 |  | YES | ignore |
| >>RLC Duplication Information | O |  | 9.3.1.146 |  | YES | ignore |
| >>SDT RLC Bearer Configuration | O |  | OCTET STRING | RLC-BearerConfig IE defined in subclause 6.3.2 of TS 38.331 [8] | YES | ignore |
| Inactivity Monitoring Request | O |  | ENUMERATED (true, ...) |  | YES | reject |
| RAT-Frequency Priority Information | O |  | 9.3.1.34 |  | YES | reject |
| RRC-Container | O |  | 9.3.1.6 | Includes the *DL-DCCH-Message* message as defined in subclause 6.2 of TS 38.331 [8], encapsulated in a PDCP PDU. | YES | ignore |
| Masked IMEISV | O |  | 9.3.1.55 |  | YES | ignore |
| Serving PLMN | O |  | PLMN ID  9.3.1.14 | Indicates the PLMN serving the UE. | YES | ignore |
| gNB-DU UE Aggregate Maximum Bit Rate Uplink | C-ifDRBSetup |  | Bit Rate 9.3.1.22 | The gNB-DU UE Aggregate Maximum Bit Rate Uplink is to be enforced by the gNB-DU. | YES | ignore |
| RRC Delivery Status Request | O |  | ENUMERATED (true, …) | Indicates whether RRC DELIVERY REPORT procedure is requested for the RRC message. | YES | ignore |
| Resource Coordination Transfer Information | O |  | 9.3.1.73 |  | YES | ignore |
| servingCellMO | O |  | INTEGER (1..64, ...) |  | YES | ignore |
| New gNB-CU UE F1AP ID | O |  | gNB-CU UE F1AP ID  9.3.1.4 |  | YES | reject |
| RAN UE ID | O |  | OCTET STRING (SIZE (8)) |  | YES | ignore |
| Trace Activation | O |  | 9.3.1.88 |  | YES | ignore |
| Additional RRM Policy Index | O |  | 9.3.1.90 |  | YES | ignore |
| **BH RLC Channel to be Setup List** |  | *0..1* |  |  | YES | reject |
| **>BH RLC Channel to be Setup Item IEs** |  | *1 .. <maxnoofBHRLCChannels>* |  |  | EACH | reject |
| >>BH RLC CH ID | M |  | 9.3.1.113 |  | - |  |
| >>CHOICE *BH QoS Information* | M |  |  |  |  |  |
| *>>>BH RLC CH QoS* |  |  |  |  |  |  |
| >>>>BH RLC CH QoS | M |  | QoS Flow Level QoS Parameters  9.3.1.45 | Shall be used for SA case. | - |  |
| *>>>E-UTRAN BH RLC CH QoS* |  |  |  |  |  |  |
| >>>>E-UTRAN BH RLC CH QoS | M |  | E-UTRAN QoS  9.3.1.19 | Shall be used for EN-DC case. | - |  |
| *>>>Control Plane Traffic Type* |  |  |  |  |  |  |
| >>>>Control Plane Traffic Type | M |  | 9.3.1.115 |  | - |  |
| >>RLC Mode | M |  | 9.3.1.27 |  | - |  |
| >>BAP Control PDU Channel | O |  | ENUMERATED (true, …) |  | - |  |
| >>Traffic Mapping Information | O |  | 9.3.1.95 |  | - |  |
| Configured BAP Address | O |  | 9.3.1.111 | The BAP address configured for the corresponding child IAB-node. | YES | reject |
| NR V2X Services Authorized | O |  | 9.3.1.116 |  | YES | ignore |
| LTE V2X Services Authorized | O |  | 9.3.1.117 |  | YES | ignore |
| NR UE Sidelink Aggregate Maximum Bit Rate | O |  | 9.3.1.119 | This IE applies only if the UE is authorized for NR V2X services. | YES | ignore |
| LTE UE Sidelink Aggregate Maximum Bit Rate | O |  | 9.3.1.118 | This IE applies only if the UE is authorized for LTE V2X services. | YES | ignore |
| PC5 Link Aggregate Bit Rate | O |  | Bit Rate  9.3.1.22 | Only applies for non-GBR and unicast QoS Flows. | YES | ignore |
| **SL DRB to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>SL DRB to Be Setup Item IEs** |  | *1 .. <maxnoofSLDRBs>* |  |  | EACH | reject |
| >>SL DRB ID | M |  | 9.3.1.120 |  | - |  |
| **>>SL DRB Information** |  | *1* |  |  | YES | ignore |
| *>>>SL DRB QoS* | M |  | PC5 QoS Parameters  9.3.1.122 |  | - |  |
| **>>>Flows Mapped to SL DRB Item** |  | *1 .. <maxnoofPC5QoSFlows>* |  |  | - |  |
| >>>>PC5 QoS Flow Identifier |  |  | 9.3.1.121 |  | - |  |
| >>RLC mode | M |  | 9.3.1.27 |  | - |  |
| >>Duplication Indication | O |  | ENUMERATED (true, ..., false) | If included, it should be set to true. | - |  |
| **Conditional Inter-DU Mobility Information** | O |  |  |  | YES | reject |
| >CHO Trigger | M |  | ENUMERATED (CHO-initiation, CHO-replace, …) |  | - | - |
| >Target gNB-DU UE F1AP ID | C-ifCHOmod |  | 9.3.1.5 | Allocated at the target gNB-DU | - | - |
| >Estimated Arrival Probability | O |  | INTEGER (1..100) |  | YES | ignore |
| Management Based MDT PLMN List | O |  | MDT PLMN List  9.3.1.151 |  | YES | ignore |
| Serving NID | O |  | 9.3.1.155 |  | YES | reject |
| F1-C Transfer Path | O |  | 9.3.1.207 |  | YES | reject |
| F1-C Transfer Path NRDC | O |  | 9.3.1.228 |  | YES | reject |
| MDT Polluted Measurement Indicator | O |  | ENUMERATED (IDC,no-IDC, …) | Indication on whether MDT Measurement affect (e.g. IDC) is undertaken or not. | YES | ignore |
| SCG Activation Request | O |  | 9.3.1.233 |  | YES | ignore |
| Old CG-SDT Session Info | O |  | CG-SDT Session Info 9.3.1.261 |  | YES | ignore |
| 5G ProSe Authorized | O |  | 9.3.1.268 |  | YES | ignore |
| 5G ProSe UE PC5 Aggregate Maximum Bit Rate | O |  | NR UE Sidelink Aggregate Maximum Bit Rate  9.3.1.119 | This IE applies only if the UE is authorized for 5G ProSe services. | YES | ignore |
| 5G ProSe PC5 Link Aggregate Bit Rate | O |  | Bit Rate  9.3.1.22 | This IE applies only if the UE is authorized for 5G ProSe services, and only applies for non-GBR and unicast QoS Flows. | YES | ignore |
| **Uu RLC Channel to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>Uu RLC Channel to be Setup Item IEs** |  | *1 .. <maxnoofUuRLCChannels>* |  |  | - |  |
| >>Uu RLC Channel ID | M |  | 9.3.1.266 |  | - |  |
| >>CHOICE *Uu RLC Channel QoS Information* | M |  |  |  | - |  |
| *>>>Uu RLC Channel QoS* |  |  |  |  |  |  |
| >>>>Uu RLC Channel QoS | M |  | QoS Flow Level QoS Parameters  9.3.1.45 |  | - |  |
| *>>>Uu Control Plane Traffic Type* |  |  |  |  |  |  |
| >>>>Uu Control Plane Traffic Type | M |  | ENUMERATED(SRB0, SRB1, SRB2, …) | This IE indicates the type of SRB conveyed via the Uu Relay RLC Channel. | - |  |
| >>RLC Mode | M |  | 9.3.1.27 |  | - |  |
| **PC5 RLC Channel to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>PC5 RLC Channel to be Setup Item IEs** |  | *1 .. <maxnoofPC5RLCChannels>* |  |  | - |  |
| >>PC5 RLC Channel ID | M |  | 9.3.1.265 |  | - |  |
| >>Remote UE Local ID | O |  | 9.3.1.267 | This IE is not used in this version of the specification. | - |  |
| >>CHOICE *PC5 RLC Channel QoS Information* | M |  |  |  | - |  |
| *>>>PC5 RLC Channel QoS* |  |  |  |  |  |  |
| >>>>PC5 RLC Channel QoS | M |  | QoS Flow Level QoS Parameters  9.3.1.45 |  | - |  |
| *>>>PC5 Control Plane Traffic Type* |  |  |  |  |  |  |
| >>>>PC5 Control Plane Traffic Type | M |  | ENUMERATED(SRB1, SRB2, …) | This IE indicates the type of SRB conveyed via the PC5 Relay RLC Channel. | - |  |
| >>>U2U RLC Channel QoS |  |  |  |  | YES | reject |
| >>>>*U2U RLC Channel QoS* | M |  | PC5 QoS Parameters  9.3.1.122 |  | - |  |
| >>RLC Mode | M |  | 9.3.1.27 |  | - |  |
| Path Switch Configuration | O |  | 9.3.1.263 |  | YES | ignore |
| gNB-DU UE Slice Maximum Bit Rate List | O |  | 9.3.1.271 | The Slice Maximum Bit Rate List is the maximum aggregate UL bit rate per slice, to be enforced by the gNB-DU, if feasible. This IE is ignored if the *DRB to Be Setup List* IE is not present. | YES | ignore |
| Multicast MBS Session Setup List | O |  | Multicast MBS Session List 9.3.1.272 | The list of MBS Session ID that UE has joined. | YES | reject |
| **UE Multicast MRB to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>UE Multicast MRB to Be Setup Item IEs** |  | *1 .. <maxnoofMRBsforUE>* |  |  | EACH | reject |
| >>MRB ID | M |  | 9.3.1.224 | MRB ID for the UE. | - |  |
| >>MBS PTP Retransmission Tunnel Required | O |  | 9.3.2.10 |  | - |  |
| >>MBS PTP Forwarding Tunnel Required Information | O |  | MRB Progress Information 9.3.2.12 |  | - |  |
| >>Source MRB ID | O |  | 9.3.1.224  MRB ID | In case of inter-DU handover, indicates the MRB ID provided to the UE in the source cell. | - | ignore |
| **ServingCellMO List** |  | *0..1* |  | For NCD-SSBs | YES | ignore |
| **>ServingCellMO Item IEs** |  | *1 .. <maxnoofServingCellMOs>* |  |  | EACH | ignore |
| >>servingCellMO | M |  | INTEGER (1..64) |  | - |  |
| >>SSB frequency | M |  | INTEGER (0..3279165) | ARFCN | - |  |
| Network Controlled Repeater Authorized | O |  | 9.3.1.288 |  | YES | ignore |
| SDT Volume Threshold | O |  | INTEGER(1.. 192000,...) | Unit: byte. | YES | ignore |
| **LTM InformationSetup** |  | *0..1* |  |  | YES | reject |
| >LTM Indicator | M |  | ENUMERATED (true, …) |  | - |  |
| >LTM Configuration ID | M |  | INTEGER (1..8) | Corresponds to the *LTM-CandidateId* IE, as defined in TS 38.331 [8]. | - |  |
| >Reference Configuration | O |  | 9.3.1.292 |  | - |  |
| >CSI Resource Configuration | O |  | OCTET STRING | Includes the *ltm-CSI-ResourceConfigToAddModList* IE as defined in TS 38.331 [8]. | - |  |
| LTM Configuration ID Mapping List | O |  | 9.3.1.294 |  | YES | reject |
| **Early Sync Information Request** |  | *0..1* |  |  | YES | ignore |
| >Request for RACH Configuration | O |  | ENUMERATED (true, …) |  | - |  |
| Source gNB-DU ID | O |  | gNB-DU ID  9.3.1.9 |  | YES | reject |
| Path Addition Information | O |  | 9.3.1.296 | This IE contains either the *Indirect Path Addition* IE or the *N3C Indirect Path Addition* IE. | YES | ignore |
| NR A2X Services Authorized | O |  | 9.3.1.323 |  | YES | ignore |
| LTE A2X Services Authorized | O |  | 9.3.1.324 |  | YES | ignore |
| NR UE Sidelink Aggregate Maximum Bit Rate for A2X | O |  | 9.3.1.119 | This IE applies only if the UE is authorized for NR A2X services. | YES | ignore |
| LTE UE Sidelink Aggregate Maximum Bit Rate for A2X | O |  | 9.3.1.118 | This IE applies only if the UE is authorized for LTE A2X services. | YES | ignore |

| Range bound | Explanation |
| --- | --- |
| maxnoofSCells | Maximum no. of SCells allowed towards one UE, the maximum value is 32. |
| maxnoofServingCellMOs | Maximum number of ServingCellMOs for NCD-SSB per cell. Maximum value is 16 |
| maxnoofSRBs | Maximum no. of SRB allowed towards one UE, the maximum value is 8. |
| maxnoofDRBs | Maximum no. of DRB allowed towards one UE, the maximum value is 64. |
| maxnoofULUPTNLInformation | Maximum no. of ULUP TNL Information allowed towards one DRB, the maximum value is 2. |
| maxnoofCandidateSpCells | Maximum no. of SpCells allowed towards one UE, the maximum value is 64. |
| maxnoofQoSFlows | Maximum no. of flows allowed to be mapped to one DRB, the maximum value is 64. |
| maxnoofBHRLCChannels | Maximum no. of BH RLC channels allowed towards one IAB-node, the maximum value is 65536. |
| maxnoofSLDRBs | Maximum no. of SL DRB allowed for NR sidelink communication per UE, the maximum value is 512. |
| maxnoofPC5QoSFlows | Maximum no. of PC5 QoS flow allowed towards one UE for NR sidelink communication, the maximum value is 2048. |
| maxnoofAdditionalPDCPDuplicationTNL | Maximum no. of additional UP TNL Information allowed towards one DRB, the maximum value is 2. |
| maxnoofUuRLCChannels | Maximum no. of Uu Relay RLC channels for L2 U2N relaying or L2 N3C relaying per Relay UE, the maximum value is 32. |
| maxnoofPC5RLCChannels | Maximum no. of PC5 Relay RLC channels allowed for L2 U2N or U2U relaying per Remote UE or Relay UE, the maximum value is 512. |
| maxnoofMRBsforUE | Maximum no. of multicast MRB allowed towards one UE, the maximum value is 64. |

|  |  |
| --- | --- |
| Condition | Explanation |
| ifDRBSetup | This IE shall be present only if the *DRB to Be Setup List* IE is present. |
| ifCHOmod | This IE shall be present if the *CHO Trigger* IE is present and set to "CHO-replace". |

#### 9.2.2.2 UE CONTEXT SETUP RESPONSE

[snip]

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofSCells | Maximum no. of SCells allowed towards one UE, the maximum value is 32. |
| maxnoofSRBs | Maximum no. of SRB allowed towards one UE, the maximum value is 8. |
| maxnoofDRBs | Maximum no. of DRB allowed towards one UE, the maximum value is 64. |
| maxnoofDLUPTNLInformation | Maximum no. of DL UP TNL Information allowed towards one DRB, the maximum value is 2. |
| maxnoofBHRLCChannels | Maximum no. of BH RLC channels allowed towards one IAB-node, the maximum value is 65536. |
| maxnoofSLDRBs | Maximum no. of SL DRB allowed for NR sidelink communication per UE, the maximum value is 512. |
| maxnoofAdditionalPDCPDuplicationTNL | Maximum no. of additional UP TNL Information allowed towards one DRB, the maximum value is 2. |
| maxnoofUuRLCChannels | Maximum no. of Uu Relay RLC channels for L2 U2N relaying or L2 N3C relaying per Relay UE, the maximum value is 32. |
| maxnoofPC5RLCChannels | Maximum no. of PC5 Relay RLC channels allowed for L2 U2N or L2 U2U relaying per Remote UE or Relay UE, the maximum value is 512. |
| maxNrofBWPs | Maximum number of BWPs per serving cell, the maximum value is 8. |
| maxnoofMRBsforUE | Maximum no. of multicast MRB allowed towards one UE, the maximum value is 64. |

[snip]

#### 9.2.2.7 UE CONTEXT MODIFICATION REQUEST

This message is sent by the gNB-CU to provide UE Context information changes to the gNB-DU.

Direction: gNB-CU → gNB-DU

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| --- | --- | --- | --- | --- | --- | --- |
| Message Type | M |  | 9.3.1.1 |  | YES | reject |
| gNB-CU UE F1AP ID | M |  | 9.3.1.4 |  | YES | reject |
| gNB-DU UE F1AP ID | M |  | 9.3.1.5 |  | YES | reject |
| SpCell ID | O |  | NR CGI 9.3.1.12 | Special Cell as defined in TS 38.321 [16]. For handover case, this IE is considered as target cell. | YES | ignore |
| ServCellIndex | O |  | INTEGER (0..31, ...) |  | YES | reject |
| SpCell UL Configured | O |  | Cell UL Configured  9.3.1.33 |  | YES | ignore |
| DRX Cycle | O |  | DRX Cycle  9.3.1.24 |  | YES | ignore |
| CU to DU RRC Information | O |  | 9.3.1.25 |  | YES | reject |
| Transmission Action Indicator | O |  | 9.3.1.11 |  | YES | ignore |
| Resource Coordination Transfer Container | O |  | OCTET STRING | Includes the *MeNB Resource Coordination Information* IE as defined in subclause 9.2.116 of TS 36.423 [9] for EN-DC case or *MR-DC Resource Coordination Information* IE as defined in TS 38.423 [28] for NGEN-DC and NE-DC cases. | YES | ignore |
| RRC Reconfiguration Complete Indicator | O |  | 9.3.1.30 |  | YES | ignore |
| RRC-Container | O |  | 9.3.1.6 | Includes the *DL-DCCH-Message* message as defined in subclause 6.2 of TS 38.331 [8], encapsulated in a PDCP PDU. | YES | reject |
| **SCell To Be Setup List** |  | *0..1* |  |  | YES | ignore |
| **>SCell to Be Setup Item IEs** |  | *1.. <maxnoofSCells>* |  |  | EACH | ignore |
| >>SCell ID | M |  | NR CGI 9.3.1.12 | SCell Identifier in gNB | - |  |
| >>SCellIndex | M |  | INTEGER (1..31) |  | - |  |
| >>SCell UL Configured | O |  | Cell UL Configured  9.3.1.33 |  | - |  |
| >>servingCellMO | O |  | INTEGER (1..64) |  | YES | ignore |
| **SCell To Be Removed List** |  | *0..1* |  |  | YES | ignore |
| **>SCell to Be Removed Item IEs** |  | *1 .. <maxnoofSCells>* |  |  | EACH | ignore |
| >>SCell ID | M |  | NR CGI 9.3.1.12 | SCell Identifier in gNB | - |  |
| **SRB to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>SRB to Be Setup Item IEs** |  | *1..<maxnoofSRBs>* |  |  | EACH | reject |
| >>SRB ID | M |  | 9.3.1.7 |  | - |  |
| >>Duplication Indication | O |  | ENUMERATED (true, ..., false) | This IE is ignored if the *Additional Duplication Indication* IE is present. | - |  |
| >>Additional Duplication Indication | O |  | ENUMERATED (three, four, …) |  | YES | ignore |
| >>SRB Mapping Info | O |  | Uu RLC Channel ID 9.3.1.266 | This IE contains the mapped Uu Relay RLC CH ID for the SRB | YES | ignore |
| >>SDT Indicator Setup | O |  | ENUMERATED (true, …) | Indicates SDT SRB. | YES | reject |
| **DRB to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>DRB to Be Setup Item IEs** |  | *1 .. <maxnoofDRBs>* |  |  | EACH | reject |
| >>DRB ID | M |  | 9.3.1.8 |  | - |  |
| >>CHOICE QoS Information | M |  |  |  | - |  |
| *>>>E-UTRAN QoS* |  |  |  |  |  |  |
| >>>>E-UTRAN QoS | M |  | 9.3.1.19 | Shall be used for EN-DC case to convey E-RAB Level QoS Parameters |  |  |
| *>>>DRB Information* |  |  |  |  |  |  |
| **>>>>DRB Information** |  | *1* |  | Shall be used for NG-RAN cases | YES | ignore |
| >>>>>DRB QoS | M |  | 9.3.1.45 |  | - |  |
| >>>>>S-NSSAI | M |  | 9.3.1.38 |  | - |  |
| >>>>>Notification Control | O |  | 9.3.1.56 |  | - |  |
| **>>>>>Flows Mapped to DRB Item** |  | *1 .. <maxnoofQoSFlows>* |  |  | - |  |
| >>>>>>QoS Flow Identifier | M |  | 9.3.1.63 |  | - |  |
| >>>>>>QoS Flow Level QoS Parameters | M |  | 9.3.1.45 |  | - |  |
| >>>>>>QoS Flow Mapping Indication | O |  | 9.3.1.72 |  | YES | ignore |
| >>>>>>TSC Traffic Characteristics | O |  | 9.3.1.141 | Traffic pattern information associated with the QFI. Details in TS 23.501 [21]. | YES | ignore |
| >>>>ECN Marking or Congestion Information Reporting Request | O |  | 9.3.1.321 |  | YES | ignore |
| **>>UL UP TNL Information to be setup List** |  | *1* |  |  | - |  |
| **>>>UL UP TNL Information to Be Setup Item IEs** |  | *1 .. <maxnoofULUPTNLInformation>* |  |  | - |  |
| >>>>UL UP TNL Information | M |  | UP Transport Layer Information  9.3.2.1 | gNB-CU endpoint of the F1 transport bearer. For delivery of UL PDUs. | - |  |
| >>>>BH Information | O |  | 9.3.1.114 |  | YES | ignore |
| >>>>DRB Mapping Info | O |  | Uu RLC Channel ID 9.3.1.266 | This IE contains the mapped Uu Relay RLC CH ID of the DL tunnel corresponding to such UL tunnel | YES | ignore |
| >>RLC Mode | M |  | 9.3.1.27 |  | - |  |
| >>UL Configuration | O |  | UL Configuration  9.3.1.31 | Information about UL usage in gNB-DU. | - |  |
| >>Duplication Activation | O |  | 9.3.1.36 | Information on the initial state of CA based UL PDCP duplication.  This IE is ignored if the *RLC Duplication Information* IE is present. | - |  |
| >>DC Based Duplication Configured | O |  | ENUMERATED (true, ..., false) | Indication on whether DC based PDCP duplication is configured or not. If included, it should be set to true. | YES | reject |
| >>DC Based Duplication Activation | O |  | Duplication Activation  9.3.1.36 | Information on the initial state of DC based UL PDCP duplication.  This IE is ignored if the *RLC Duplication Information* IE is present. | YES | reject |
| >>DL PDCP SN length | O |  | ENUMERATED (12bits, 18bits, ...) |  | YES | ignore |
| >>UL PDCP SN length | O |  | ENUMERATED (12bits, 18bits, ...) |  | YES | ignore |
| **>>Additional PDCP Duplication TNL List** |  | *0..1* |  |  | YES | ignore |
| **>>>Additional PDCP Duplication TNL Items** |  | *1 .. < maxnoofAdditionalPDCPDuplicationTNL>* |  |  | EACH | ignore |
| >>>>Additional PDCP Duplication UP TNL Information | M |  | UP Transport Layer Information  9.3.2.1 | gNB-CU endpoint of the F1 transport bearer. For delivery of UL PDUs. | - |  |
| >>>>BH Information | O |  | 9.3.1.114 |  | YES | ignore |
| >>RLC Duplication Information | O |  | 9.3.1.146 |  | YES | ignore |
| >>SDT Indicator Setup | O |  | ENUMERATED (true, …) | Indicates SDT DRB. | YES | reject |
| **DRB to Be Modified List** |  | *0..1* |  |  | YES | reject |
| **>DRB to Be Modified Item IEs** |  | *1 .. <maxnoofDRBs>* |  |  | EACH | reject |
| >>DRB ID | M |  | 9.3.1.8 |  | - |  |
| >>CHOICE *QoS Information* | O |  |  |  | - |  |
| *>>>E-UTRAN QoS* |  |  |  |  |  |  |
| >>>>E-UTRAN QoS | M |  | 9.3.1.19 | Used for EN-DC case to convey E-RAB Level QoS Parameters | - |  |
| *>>>DRB Information* |  |  |  |  |  |  |
| **>>>>DRB Information** |  | *1* |  | Used for NG-RAN cases | YES | ignore |
| >>>>>DRB QoS | M |  | 9.3.1.45 |  | - |  |
| >>>>>S-NSSAI | M |  | 9.3.1.38 |  | - |  |
| >>>>>Notification Control | O |  | 9.3.1.56 |  | - |  |
| **>>>>>Flows Mapped to DRB Item** |  | *1 .. <maxnoofQoSFlows>* |  |  | - |  |
| >>>>>>QoS Flow Identifier | M |  | 9.3.1.63 |  | - |  |
| >>>>>>QoS Flow Level QoS Parameters | M |  | 9.3.1.45 |  | - |  |
| >>>>>>QoS Flow Mapping Indication | O |  | 9.3.1.72 |  | YES | ignore |
| >>>>>>TSC Traffic Characteristics | O |  | 9.3.1.141 | Traffic pattern information associated with the QFI. Details in TS 23.501 [21]. | YES | ignore |
| >>>>ECN Marking or Congestion Information Reporting Request | O |  | 9.3.1.321 |  | YES | ignore |
| **>>UL UP TNL Information to be setup List** |  | *1* |  |  | - |  |
| **>>>UL UP TNL Information to Be Setup Item IEs** |  | *1 .. <maxnoofULUPTNLInformation>* |  |  | - |  |
| >>>>UL UP TNL Information | M |  | UP Transport Layer Information  9.3.2.1 | gNB-CU endpoint of the F1 transport bearer. For delivery of UL PDUs. | - |  |
| >>>>BH Information | O |  | 9.3.1.114 |  | YES | ignore |
| >>>>DRB Mapping Info | O |  | Uu RLC Channel ID 9.3.1.266 |  | YES | ignore |
| >>UL Configuration | O |  | UL Configuration  9.3.1.31 | Information about UL usage in gNB-DU. | - |  |
| >>DL PDCP SN length | O |  | ENUMERATED(12bits,18bits , ...) |  | YES | ignore |
| >>UL PDCP SN length | O |  | ENUMERATED (12bits, 18bits, ...) |  | YES | ignore |
| >>Bearer Type Change | O |  | ENUMERATED (true, …) |  | YES | ignore |
| >>RLC Mode | O |  | 9.3.1.27 |  | YES | ignore |
| >>Duplication Activation | O |  | 9.3.1.36 | Information on the initial state of CA based UL PDCP duplication.  This IE is ignored if the *RLC Duplication Information* IE is present. | YES | reject |
| >>DC Based Duplication Configured | O |  | ENUMERATED (true, …, false) | Indication on whether DC based PDCP duplication is configured or not. | YES | reject |
| >>DC Based Duplication Activation | O |  | 9.3.1.36 | Information on the initial state of DC based UL PDCP duplication.  This IE is ignored if the *RLC Duplication Information* IE is present. | YES | reject |
| **>>Additional PDCP Duplication TNL List** |  | *0..1* |  |  | YES | ignore |
| **>>>Additional PDCP Duplication TNL Items** |  | *1 .. <maxnoofAdditionalPDCPDuplicationTNL>* |  |  | EACH | ignore |
| >>>>Additional PDCP Duplication UP TNL Information | M |  | UP Transport Layer Information  9.3.2.1 | gNB-CU endpoint of the F1 transport bearer. For delivery of UL PDUs. | - |  |
| >>>>BH Information | O |  | 9.3.1.114 |  | YES | ignore |
| >>RLC Duplication Information | O |  | 9.3.1.146 |  | YES | ignore |
| >>Transmission Stop Indicator | O |  | 9.3.1.209 |  | YES | ignore |
| >>SDT Indicator Modify | O |  | ENUMTERATED (true, false, …) | Indicates SDT DRB or not. | YES | reject |
| **SRB To Be Released List** |  | *0..1* |  |  | YES | reject |
| **>SRB To Be Released Item IEs** |  | *1.. <maxnoofSRBs>* |  |  | EACH | reject |
| >>SRB ID | M |  | 9.3.1.7 |  |  |  |
| **DRB to Be Released List** |  | *0..1* |  |  | YES | reject |
| **>DRB to Be Released Item IEs** |  | *1 .. <maxnoofDRBs>* |  |  | EACH | reject |
| >>DRB ID | M |  | 9.3.1.8 |  | - |  |
| Inactivity Monitoring Request | O |  | ENUMERATED (true, ...) |  | YES | reject |
| RAT-Frequency Priority Information | O |  | 9.3.1.34 |  | YES | reject |
| DRX configuration indicator | O |  | ENUMERATED(release,...) |  | YES | ignore |
| RLC Failure Indication | O |  | 9.3.1.66 |  | YES | ignore |
| Uplink TxDirectCurrentList Information | O |  | 9.3.1.67 |  | YES | ignore |
| GNB-DU Configuration Query | O |  | ENUMERATED (true, ...) | Used to request the gNB-DU to provide its configuration. | YES | reject |
| gNB-DU UE Aggregate Maximum Bit Rate Uplink | O |  | Bit Rate 9.3.1.22 | The gNB-DU UE Aggregate Maximum Bit Rate Uplink is to be enforced by the gNB-DU. | YES | ignore |
| Execute Duplication | O |  | ENUMERATED (true, ...) | This IE may be sent only if duplication has been configured for the UE. | YES | ignore |
| RRC Delivery Status Request | O |  | ENUMERATED (true, …) | Indicates whether RRC DELIVERY REPORT procedure is requested for the RRC message. | YES | ignore |
| Resource Coordination Transfer Information | O |  | 9.3.1.73 |  | YES | ignore |
| servingCellMO | O |  | INTEGER (1..64, ...) |  | YES | ignore |
| Need for Gap | O |  | ENUMERATED (true, …) | Indicate gap for SeNB configured measurement is requested.It only applied to NE DC scenario. | Yes | ignore |
| Full Configuration | O |  | ENUMERATED (full, ...) |  | YES | reject |
| Additional RRM Policy Index | O |  | 9.3.1.90 |  | YES | ignore |
| Lower Layer Presence Status Change | O |  | 9.3.1.94 |  | Yes | ignore |
| **BH RLC Channel to be Setup List** |  | *0..1* |  |  | YES | reject |
| **>BH RLC Channel to be Setup Item IEs** |  | *1 .. <maxnoofBHRLCChannels>* |  |  | EACH | reject |
| >>BH RLC CH ID | M |  | 9.3.1.113 |  | - |  |
| >>CHOICE *BH QoS information* | M |  |  |  |  |  |
| *>>>BH RLC CH QoS* |  |  |  |  |  |  |
| >>>>BH RLC CH QoS | M |  | QoS Flow Level QoS Parameters  9.3.1.45 | Shall be used for SA case. |  |  |
| *>>>E-UTRAN BH RLC CH QoS* |  |  |  |  |  |  |
| >>>>E-UTRAN BH RLC CH QoS | M |  | E-UTRAN QoS  9.3.1.19 | Shall be used for EN-DC case. |  |  |
| *>>>Control Plane Traffic Type* |  |  |  |  |  |  |
| >>>>Control Plane Traffic Type | M |  | 9.3.1.115 |  |  |  |
| >>RLC Mode | M |  | 9.3.1.27 |  | - |  |
| >>BAP Control PDU Channel | O |  | ENUMERATED (true, …) |  | - |  |
| >>Traffic Mapping Information | O |  | 9.3.1.95 |  | - |  |
| **BH RLC Channel to be Modified List** |  | *0..1* |  |  | YES | reject |
| **>BH RLC Channel to be Modified Item IEs** |  | *1 .. <maxnoofBHRLCChannels>* |  |  | EACH | reject |
| >>BH RLC CH ID | M |  | 9.3.1.113 |  | - |  |
| >>CHOICE *BH QoS information* | O |  |  |  |  |  |
| *>>>BH RLC CH QoS* |  |  |  |  |  |  |
| >>>>BH RLC CH QoS | M |  | QoS Flow Level QoS Parameters  9.3.1.45 | Shall be used for SA case. | - |  |
| *>>>E-UTRAN BH RLC CH QoS* |  |  |  |  |  |  |
| >>>>E-UTRAN BH RLC CH QoS | M |  | E-UTRAN QoS  9.3.1.19 | Shall be used for EN-DC case. | - |  |
| *>>>Control Plane Traffic Type* |  |  |  |  |  |  |
| >>>>Control Plane Traffic Type | M |  | 9.3.1.115 |  | - |  |
| >>RLC Mode | O |  | 9.3.1.27 |  | - |  |
| >>BAP Control PDU Channel | O |  | ENUMERATED (true, …) |  | - |  |
| >>Traffic Mapping Information | O |  | 9.3.1.95 |  | - |  |
| **BH RLC Channel to be Released List** |  | *0..1* |  |  | YES | reject |
| **>BH RLC Channel to be Released Item IEs** |  | *1 .. <maxnoofBHRLCChannels >* |  |  | EACH | reject |
| >>BH RLC CH ID | M |  | 9.3.1.113 |  | - |  |
| NR V2X Services Authorized | O |  | 9.3.1.116 |  | YES | ignore |
| LTE V2X Services Authorized | O |  | 9.3.1.117 |  | YES | ignore |
| NR UE Sidelink Aggregate Maximum Bit Rate | O |  | 9.3.1.119 | This IE applies only if the UE is authorized for NR V2X services. | YES | ignore |
| LTE UE Sidelink Aggregate Maximum Bit Rate | O |  | 9.3.1.118 | This IE applies only if the UE is authorized for LTE V2X services. | YES | ignore |
| PC5 Link Aggregate Bit Rate | O |  | Bit Rate  9.3.1.22 | Only applies for non-GBR and unicast QoS Flows. | YES | ignore |
| **SL DRB to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>SL DRB to Be Setup Item IEs** |  | *1 .. <maxnoofSLDRBs>* |  |  | EACH | reject |
| >>SL DRB ID | M |  | 9.3.1.120 |  | - |  |
| **>>SL DRB Information** |  | *1* |  |  | YES | ignore |
| >>>SL DRB QoS | M |  | PC5 QoS Parameters  9.3.1.122 |  | - |  |
| **>>>Flows Mapped to SL DRB Item** |  | *1 .. <maxnoofPC5QoSFlows>* |  |  | - |  |
| >>>>PC5 QoS Flow Identifier | M |  | 9.3.1.121 |  | - |  |
| >>RLC mode | O |  | 9.3.1.27 |  | - |  |
| >>Duplication Indication | O |  | ENUMERATED (true, ..., false) | If included, it should be set to true. | - |  |
| **SL DRB to Be Modified List** |  | *0..1* |  |  | YES | reject |
| **>SL DRB to Be Modified Item IEs** |  | *1 .. <maxnoofSLDRBs>* |  |  | EACH | reject |
| >>SL DRB ID | M |  | 9.3.1.120 |  | - |  |
| **>>SL DRB Information** |  | *1* |  |  | YES | ignore |
| >>>SL DRB QoS | M |  | PC5 QoS Parameters  9.3.1.122 |  | - |  |
| **>>>Flows Mapped to SL DRB Item** |  | *1 .. <maxnoofPC5QoSFlows>* |  |  | - |  |
| >>>>PC5 QoS Flow Identifier | M |  | 9.3.1.121 |  | - |  |
| >>RLC mode | O |  | 9.3.1.27 |  | - |  |
| >>Duplication Indication | O |  | ENUMERATED (true, ..., false) |  | - |  |
| **SL DRB to Be Released List** |  | *0..1* |  |  | YES | reject |
| **>SL DRB to Be Released Item IEs** |  | *1 .. <maxnoofSLDRBs>* |  |  | EACH | reject |
| >>SL DRB ID | M |  | 9.3.1.120 |  | - |  |
| **Conditional Intra-DU Mobility Information** | O |  |  |  | YES | reject |
| >CHO Trigger | M |  | ENUMERATED (CHO-initiation, CHO-replace, CHO-cancel, …) |  | - | - |
| **>****Candidate Cells To Be Cancelled List** | C-ifCHOcancel | *0 .. <maxnoofCellsinCHO>* |  |  | - | - |
| >>Target Cell ID | M |  | NR CGI 9.3.1.12 |  | - | - |
| >Estimated Arrival Probability | O |  | INTEGER (1..100) |  | YES | ignore |
| F1-C Transfer Path | O |  | 9.3.1.207 |  | YES | reject |
| SCG Indicator | O |  | ENUMERATED(released,...) | This IE is used at the MN in NR-DC and NE-DC and it indicates the release of an SCG | YES | ignore |
| Uplink TxDirectCurrentTwoCarrierList Information | O |  | 9.3.1.283 |  | YES | ignore |
| IAB Conditional RRC Message Delivery Indication | O |  | ENUMERATED (true, …) | Indicates whether the RRC message within should be withheld. This IE is only applicable if the UE is an IAB-MT, and the gNB-DU is an IAB-DU. | YES | reject |
| F1-C Transfer Path NRDC | O |  | 9.3.1.228 | This IE is only applicable if the UE is an IAB-MT. | YES | reject |
| MDT Polluted Measurement Indicator | O |  | ENUMERATED (IDC,no-IDC, …) | Indication on whether MDT Measurement affect (e.g. IDC) is undertaken or not. | YES | ignore |
| SCG Activation Request | O |  | 9.3.1.233 |  | YES | ignore |
| CG-SDT Query Indication | O |  | ENUMERATED (true, ...) |  | YES | ignore |
| 5G ProSe Authorized | O |  | 9.3.1.268 |  | YES | ignore |
| 5G ProSe UE PC5 Aggregate Maximum Bit Rate | O |  | NR UE Sidelink Aggregate Maximum Bit Rate  9.3.1.119 | This IE applies only if the UE is authorized for 5G ProSe services. | YES | ignore |
| 5G ProSe PC5 Link Aggregate Bit Rate | O |  | Bit Rate  9.3.1.22 | This IE applies only if the UE is authorized for 5G ProSe services, and only applies for non-GBR and unicast QoS Flows. | YES | ignore |
| Updated Remote UE Local ID | O |  | Remote UE Local ID 9.3.1.267 | This IE indicates the updated Remote UE Local ID for the U2N Remote UE associated with the F1AP-IDs | YES | ignore |
| **Uu RLC Channel to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>Uu RLC Channel to be Setup Item IEs** |  | *1 .. <maxnoofUuRLCChannels>* |  |  | - |  |
| >>Uu RLC Channel ID | M |  | 9.3.1.266 |  | - |  |
| >>CHOICE *Uu RLC Channel QoS Information* | M |  |  |  | - |  |
| *>>>Uu RLC Channel QoS* |  |  |  |  |  |  |
| >>>>Uu RLC Channel QoS | M |  | QoS Flow Level QoS Parameters  9.3.1.45 |  | - |  |
| *>>>Uu Control Plane Traffic Type* |  |  |  |  |  |  |
| >>>>Uu Control Plane Traffic Type | M |  | ENUMERATED(SRB0, SRB1, SRB2, …) | This IE indicates the type of SRB conveyed via the Uu Relay RLC Channel. | - |  |
| >>RLC Mode | M |  | 9.3.1.27 |  | - |  |
| **Uu RLC Channel to Be Modified List** |  | *0..1* |  |  | YES | reject |
| **>Uu RLC Channel to be Modified Item IEs** |  | *1 .. <maxnoofUuRLCChannels>* |  |  | - |  |
| >>Uu RLC Channel ID | M |  | 9.3.1.266 |  | - |  |
| >>CHOICE *Uu RLC Channel QoS Information* | O |  |  |  | - |  |
| *>>>Uu RLC Channel QoS* |  |  |  |  |  |  |
| >>>>Uu RLC Channel QoS | M |  | QoS Flow Level QoS Parameters  9.3.1.45 |  | - |  |
| *>>>Uu Control Plane Traffic Type* |  |  |  |  |  |  |
| >>>>Uu Control Plane Traffic Type | M |  | ENUMERATED(SRB0, SRB1, SRB2, …) | This IE indicates the type of SRB conveyed via the Uu Relay RLC Channel. | - |  |
| >>RLC Mode | O |  | 9.3.1.27 |  | - |  |
| **Uu RLC Channel to Be Released List** |  | *0..1* |  |  | YES | reject |
| **>Uu RLC Channel to Be Released Item IEs** |  | *1 .. <maxnoofUuRLCChannels>* |  |  | - |  |
| >>Uu RLC channel ID | M |  | 9.3.1.266 |  | - |  |
| **PC5 RLC Channel to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>PC5 RLC Channel to be Setup Item IEs** |  | *1 .. <maxnoofPC5RLCChannels>* |  |  | - |  |
| >>PC5 RLC Channel ID | M |  | 9.3.1.265 |  | - |  |
| >>Remote UE Local ID | O |  | 9.3.1.267 |  | - |  |
| >>CHOICE *PC5 RLC Channel QoS Information* | M |  |  |  | - |  |
| *>>>PC5 RLC Channel QoS* |  |  |  |  |  |  |
| >>>>PC5 RLC Channel QoS | M |  | QoS Flow Level QoS Parameters  9.3.1.45 |  | - |  |
| *>>>PC5 Control Plane Traffic Type* |  |  |  |  |  |  |
| >>>>PC5 Control Plane Traffic Type | M |  | ENUMERATED(SRB1, SRB2, …) | This IE indicates the type of SRB conveyed via the PC5 Relay RLC Channel. | - |  |
| >>>U2U RLC Channel QoS |  |  |  |  | YES | reject |
| >>>>U2U RLC Channel QoS | M |  | PC5 QoS Parameters  9.3.1.122 |  | - |  |
| **>>RLC Mode** | M |  | 9.3.1.27 |  | - |  |
| **PC5 RLC Channel to Be Modified List** |  | *0..1* |  |  | YES | reject |
| **>PC5 RLC Channel to be Modified Item IEs** |  | *1 .. <maxnoofPC5RLCChannels>* |  |  | - |  |
| >>PC5 RLC Channel ID | M |  | 9.3.1.265 |  | - |  |
| >>Remote UE Local ID | O |  | 9.3.1.267 |  |  |  |
| >>CHOICE *PC5 RLC Channel QoS Information* | O |  |  |  | - |  |
| *>>>PC5 RLC Channel QoS* |  |  |  |  |  |  |
| >>>>PC5 RLC Channel QoS | M |  | QoS Flow Level QoS Parameters  9.3.1.45 |  | - |  |
| *>>>PC5 Control Plane Traffic Type* |  |  |  |  |  |  |
| >>>>PC5 Control Plane Traffic Type | M |  | ENUMERATED(SRB1, SRB2, …) | This IE indicate the type of SRB conveyed via the PC5 Relay RLC Channel. | - |  |
| >>>U2U RLC Channel QoS |  |  |  |  | YES | reject |
| >>>>*U2U RLC Channel QoS* | M |  | PC5 QoS Parameters  9.3.1.122 |  | - |  |
| >>RLC Mode | O |  | 9.3.1.27 |  | - |  |
| **PC5 RLC Channel to Be Released List** |  | *0..1* |  |  | YES | reject |
| **>PC5 RLC Channel to be Released Item IEs** |  | *1 .. <maxnoofPC5RLCChannels>* |  |  | - |  |
| >>PC5 RLC Channel ID | M |  | 9.3.1.265 |  | - |  |
| >>Remote UE Local ID | O |  | 9.3.1.267 |  | - |  |
| Path Switch Configuration | O |  | 9.3.1.263 |  | YES | ignore |
| gNB-DU UE Slice Maximum Bit Rate List | O |  | 9.3.1.271 | The Slice Maximum Bit Rate List is the maximum aggregate UL bit rate per slice, to be enforced by the gNB-DU, if feasible. | YES | ignore |
| Multicast MBS Session Setup List | O |  | Multicast MBS Session List 9.3.1.272 | The list of MBS Session ID that UE has joined. | YES | reject |
| Multicast MBS Session Remove List | O |  | Multicast MBS Session List 9.3.1.272 | The list of MBS Session ID that UE has left. | YES | reject |
| **UE Multicast MRB to Be Setup at Modify List** |  | *0..1* |  |  | YES | reject |
| **>UE Multicast MRB to Be Setup at Modify Item IEs** |  | *1 .. <maxnoofMRBsforUE>* |  |  | EACH | reject |
| >>MRB ID | M |  | 9.3.1.224 | MRB ID for the UE. | - |  |
| >>MBS PTP Retransmission Tunnel Required | O |  | 9.3.2.10 |  | - |  |
| >>MBS PTP Forwarding Tunnel Required Information | O |  | MRB Progress Information 9.3.2.12 |  | - |  |
| **UE Multicast MRB to Be Released List** |  | *0..1* |  |  | YES | reject |
| **>UE Multicast MRB to Be Released Item IEs** |  | *1 .. <maxnoofMRBsforUE>* |  |  | EACH | reject |
| >>MRB ID | M |  | 9.3.1.224 | MRB ID for the UE. | - |  |
| **SL DRX Cycle List** |  | *0..1* |  |  | YES | ignore |
| **>SL DRX Cycle Item IEs** |  | *1 ..*  *<maxnoofSLdestinations >* |  |  | EACH | ignore |
| >>RX UE ID | M |  | BIT STRING (SIZE(24)) | Indicates the destination L2 ID of RX UE associated to this UE. | - |  |
| >>CHOICE *SL DRX Information* | M |  |  |  | - |  |
| *>>>SL DRX Cycle* |  |  |  |  |  |  |
| >>>>SL DRX Cycle Length | M |  | ENUMERATED (ms10, ms20, ms32, ms40, ms60, ms64, ms70, ms80, ms128, ms160, ms256, ms320, ms512, ms640, ms1024, ms1280, ms2048, ms2560, ms5120, ms10240, ...) | Indicates the desired SL DRX cycle for RX UE associated to this UE. | - |  |
| *>>>No SL DRX* |  |  |  |  | - |  |
| >>>>SL DRX configuration indicator | M |  | ENUMERATED(release,...) |  | - |  |
| Management Based MDT PLMN Modification List | O |  | MDT PLMN Modification List  9.3.1.274 |  | YES | ignore |
| SDT Bearer Configuration Query Indication | O |  | ENUMERATED (true, ...) |  | YES | ignore |
| DAPS HO status | O |  | ENUMERATED(initiation, …) | This IE is used if DAPS HO is initiated. | YES | ignore |
| **ServingCellMO List** |  | *0..1* |  | For NCD-SSBs | YES | ignore |
| **>ServingCellMO Item IEs** |  | *1 .. <maxnoofServingCellMOs>* |  |  | EACH | ignore |
| >>servingCellMO | M |  | INTEGER (1..64) |  | - |  |
| >>SSB frequency | M |  | INTEGER (0..3279165) | ARFCN | - |  |
| Uplink TxDirectCurrentMoreCarrierList Information | O |  | 9.3.1.284 |  | YES | ignore |
| **CPAC MCG Information** |  | *0..1* |  | This IE is used at the MN for MCG configuration as specified in TS 37.340 [7] for CPAC. | YES | ignore |
| >CPAC Trigger | M |  | ENUMERATED (CPAC-preparation, CPAC-executed, …) |  | - | - |
| >PSCell ID | M |  | NR CGI 9.3.1.12 | The PSCell corresponding to the included CG-Config IE at CPAC-preparation or the selected PSCell by the UE at CPAC-executed. | - | - |
| Network Controlled Repeater Authorized | O |  | 9.3.1.288 |  | YES | ignore |
| SDT Volume Threshold | O |  | INTEGER(1.. 192000,...) | Unit: byte. | YES | ignore |
| **LTM Information Modify** |  | *0..1* |  |  | YES | reject |
| >LTM Indicator | M |  | ENUMERATED (true, …) |  | - |  |
| >LTM Configuration ID | M |  | INTEGER (1..8) | Corresponds to the *LTM-CandidateId* IE, as defined in TS 38.331 [8]. | - |  |
| >Reference Configuration | O |  | 9.3.1.292 |  | - |  |
| >CSI Resource Configuration | O |  | OCTET STRING | Includes the *ltm-CSI-ResourceConfigToAddModList* IE as defined in TS 38.331 [8]. | - |  |
| LTM Configuration ID Mapping List | O |  | 9.3.1.294 |  | YES | reject |
| **Early Sync Information Request** |  | *0..1* |  |  | YES | ignore |
| >Request for RACH Configuration | O |  | ENUMERATED (true, …) |  | - |  |
| **Early Sync Information List** |  | *0..1* |  |  | YES | ignore |
| **>Early Sync Information Item IEs** |  | *1 .. <maxnoofLTMCells>* |  |  | EACH | ignore |
| >>Cell ID | M |  | NR CGI  9.3.1.12 |  | - |  |
| >>RACH Configuration | O |  | OCTET STRING | Includes the *EarlyUL-SyncConfig*  IE, as defined in TS 38.331 [8]. |  |  |
| >>TCI States Configurations List | O |  | 9.3.1.293 |  |  |  |
| **LTM Cells To Be Released List** | O |  | 9.3.1.291 |  | YES | ignore |
| Path Addition Information | O |  | 9.3.1.296 |  | YES | ignore |
| NR A2X Services Authorized | O |  | 9.3.1.323 |  | YES | ignore |
| LTE A2X Services Authorized | O |  | 9.3.1.324 |  | YES | ignore |
| NR UE Sidelink Aggregate Maximum Bit Rate for A2X | O |  | 9.3.1.119 | This IE applies only if the UE is authorized for NR A2X services. | YES | ignore |
| LTE UE Sidelink Aggregate Maximum Bit Rate for A2X | O |  | 9.3.1.118 | This IE applies only if the UE is authorized for LTE A2X services. | YES | ignore |

| Range bound | Explanation |
| --- | --- |
| maxnoofSCells | Maximum no. of SCells allowed towards one UE, the maximum value is 32. |
| maxnoofServingCellMOs | Maximum number of ServingCellMOs for NCD-SSB per cell. Maximum value is 16 |
| maxnoofSRBs | Maximum no. of SRB allowed towards one UE, the maximum value is 8. |
| maxnoofDRBs | Maximum no. of DRB allowed towards one UE, the maximum value is 64. |
| maxnoofULUPTNLInformation | Maximum no. of UL UP TNL Information allowed towards one DRB, the maximum value is 2. |
| maxnoofQoSFlows | Maximum no. of flows allowed to be mapped to one DRB, the maximum value is 64. |
| maxnoofBHRLCChannels | Maximum no. of BH RLC channels allowed towards one IAB-node, the maximum value is 65536. |
| maxnoofSLDRBs | Maximum no. of SL DRB allowed for NR sidelink communication per UE, the maximum value is 512. |
| maxnoofPC5QoSFlows | Maximum no. of PC5 QoS flow allowed towards one UE for NR sidelink communication, the maximum value is 2048. |
| maxnoofAdditionalPDCPDuplicationTNL | Maximum no. of additional UP TNL Information allowed towards one DRB, the maximum value is 2. |
| maxnoofCellsinCHO | Maximum no. cells that can be prepared for a conditional mobility. Value is 8. |
| maxnoofUuRLCChannels | Maximum no. of Uu Relay RLC channels for L2 U2N relaying or L2 N3C relaying per Relay UE, the maximum value is 32. |
| maxnoofPC5RLCChannels | Maximum no. of PC5 Relay RLC channel allowed for L2 U2N or U2U relaying per Remote UE or Relay UE, the maximum value is 512. |
| maxnoofMRBsforUE | Maximum no. of multicast MRB allowed towards one UE, the maximum value is 64. |
| maxnoofSLdestinations | Maximum number of destination for NR sidelink communication, the maximum value is 32 |
| maxnoofLTMCells | Maximum no. of Cells configured for LTM allowed towards one UE, the maximum value is 8. |

|  |  |
| --- | --- |
| Condition | Explanation |
| ifCHOcancel | This IE may be present if the CHO Trigger IE is present and set to "CHO-cancel". |

#### 9.2.2.8 UE CONTEXT MODIFICATION RESPONSE

[snip]

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofSRBs | Maximum no. of SRB allowed towards one UE, the maximum value is 8. |
| maxnoofDRBs | Maximum no. of DRB allowed towards one UE, the maximum value is 64. |
| maxnoofDLUPTNLInformation | Maximum no. of DL UP TNL Information allowed towards one DRB, the maximum value is 2. |
| maxnoofSCells | Maximum no. of SCells allowed towards one UE, the maximum value is 32. |
| maxnoofBHRLCChannels | Maximum no. of BH RLC channels allowed towards one IAB-node, the maximum value is 65536. |
| maxnoofSLDRBs | Maximum no. of SL DRB allowed for NR sidelink communication per UE, the maximum value is 512. |
| maxnoofAdditionalPDCPDuplicationTNL | Maximum no. of additional UP TNL Information allowed towards one DRB, the maximum value is 2. |
| maxnoofUuRLCChannels | Maximum no. of Uu Relay RLC channels for L2 U2N relaying or L2 N3C relaying per Relay UE, the maximum value is 32. |
| maxnoofPC5RLCChannels | Maximum no. of PC5 Relay RLC channels allowed for L2 U2N or L2 U2U relaying per Remote UE or Relay UE, the maximum value is 512. |
| maxNrofBWPs | Maximum number of BWPs per serving cell, the maximum value is 8. |
| maxnoofMRBsforUE | Maximum no. of multicast MRB allowed towards one UE, the maximum value is 32. |

[snip]

#### 9.2.2.10 UE CONTEXT MODIFICATION REQUIRED

[snip]

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofSRBs | Maximum no. of SRB allowed towards one UE, the maximum value is 8. |
| maxnoofDRBs | Maximum no. of DRB allowed towards one UE, the maximum value is 64. |
| maxnoofDLUPTNLInformation | Maximum no. of DL UP TNL Information allowed towards one DRB, the maximum value is 2. |
| maxnoofBHRLCChannels | Maximum no. of BH RLC channels allowed towards one IAB-node, the maximum value is 65536. |
| maxnoofSLDRBs | Maximum no. of SL DRB allowed for NR sidelink communication per UE, the maximum value is 512. |
| maxnoofAdditionalPDCPDuplicationTNL | Maximum no. of additional UP TNL Information allowed towards one DRB, the maximum value is 2. |
| maxnoofCellsinCHO | Maximum no. cells that can be prepared for a conditional mobility. Value is 8. |
| maxnoofUuRLCChannels | Maximum no. of Uu Relay RLC channels for L2 U2N relaying or L2 N3C relaying per Relay UE, the maximum value is 32. |
| maxnoofPC5RLCChannels | Maximum no. of PC5 Relay RLC channels allowed for L2 U2N or L2 U2U relaying per Remote UE or Relay UE, the maximum value is 512. |
| maxnoofMRBsforUE | Maximum no. of multicast MRB allowed towards one UE, the maximum value is 32. |

[snip]

#### 9.2.2.11 UE CONTEXT MODIFICATION CONFIRM

[snip]

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofDRBs | Maximum no. of DRB allowed towards one UE, the maximum value is 64. |
| maxnoofULUPTNLInformation | Maximum no. of UL UP TNL Information allowed towards one DRB, the maximum value is 2. |
| maxnoofSLDRBs | Maximum no. of SL DRB allowed for NR sidelink communication per UE, the maximum value is 512. |
| maxnoofAdditionalPDCPDuplicationTNL | Maximum no. of additional UP TNL Information allowed towards one DRB, the maximum value is 2. |
| maxnoofUuRLCChannels | Maximum no. of Uu Relay RLC channels for L2 U2N relaying or L2 N3C relaying per Relay UE, the maximum value is 32. |
| maxnoofPC5RLCChannels | Maximum no. of PC5 Relay RLC channels allowed for L2 U2N or L2 U2U relaying per Remote UE or Relay UE, the maximum value is 512. |

[snip]

## 9.3 Information Element Definitions

### 9.3.1 Radio Network Layer Related IEs

[snip]

9.3.1.122 PC5 QoS Parameters

This IE defines the QoS to be applied to a SL DRB or to a PC5 Relay RLC channel for L2 U2U relaying.

[snip]

9.3.1.127 Dynamic PQI Descriptor

This IE indicates the QoS Characteristics for a Non-standardised or not pre-configured PQI for sidelink.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **IE/Group Name** | **Presence** | **Range** | **IE type and reference** | **Semantics description** |
| Resource Type | O |  | ENUMERATED (GBR, non-GBR, delay critical GBR, …) |  |
| QoS Priority Level | M |  | INTEGER (1..8, …) | For details see TS 23.501 [21]. |
| Packet Delay Budget | M |  | 9.3.1.51 | For details see TS 23.501 [21]. For a PC5 Relay RLC channel, the Packet Delay Budget defines the upper bound for the time that a packet may be delayed between the L2 U2U Relay UE and L2 U2U Remote UE. |
| Packet Error Rate | M |  | 9.3.1.52 | For details see TS 23.501 [21]. |
| Averaging Window | C-ifGBRflow |  | 9.3.1.53 | For details see TS 23.501 [21]. |
| Maximum Data Burst Volume | O |  | 9.3.1.54 | For details see TS 23.501 [21]. This IE shall be included if the *Delay Critical* IE is set to "delay critical" and is ignored otherwise. |

[snip]

9.3.1.265 PC5 RLC Channel ID

This IE uniquely identifies a PC5 Relay RLC channel for a L2 U2N Remote UE, or a L2 U2N Relay UE, or a L2 U2U Remote UE, or L2 U2U Relay UE.

[snip]

#### 9.3.1.296 Path Addition Information

This IE provides information for path addition in case of MP.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| CHOICE *Path Addition Information* | M |  |  |  |
| >*Indirect Path Addition* |  |  |  |  |
| >>Target Relay UE ID | M |  | BIT STRING (SIZE(24)) | Corresponds to information provided in the *SL-SourceIdentity* IE, defined in TS 38.331 [8] |
| >>Remote UE Local ID | M |  | 9.3.1.267 |  |
| >*Direct Path Addition* |  |  | NULL |  |
| >*N3C Indirect Path Addition* |  |  |  |  |
| >>Target Relay UE ID | M |  | gNB-DU UE F1AP ID  9.3.1.5 | Indicates the gNB-DU UE F1AP ID IE of MP Relay UE using N3C. |

### 9.4.5 Information Element Definitions

-- ASN1START

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

--

-- Information Element Definitions

--

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

F1AP-IEs {

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

ngran-access (22) modules (3) f1ap (3) version1 (1) f1ap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

[snip]

id-ECNMarkingorCongestionInformationReportingRequest,

id-ECNMarkingorCongestionInformationReportingStatus,

id-ERedcap-Bcast-Information,

id-NeedForInterruptionInfoNR,

id-LTMCells-ToBeReleased-Item,

id-U2URLCChannelQoS,

maxNRARFCN,

maxnoofErrors,

maxnoofBPLMNs,

[snip]

PC5RLCChannelQoSInformation ::= CHOICE {

pC5RLCChannelQoS QoSFlowLevelQoSParameters,

pC5ControlPlaneTrafficType ENUMERATED {srb1,srb2,...},

choice-extension ProtocolIE-SingleContainer { { PC5RLCChannelQoSInformation-ExtIEs} }

}

PC5RLCChannelQoSInformation-ExtIEs F1AP-PROTOCOL-IES ::= {

{ ID id-U2URLCChannelQoS CRITICALITY reject TYPE PC5QoSParameters PRESENCE mandatory},

...

}

### 9.4.7 Constant Definitions

-- ASN1START

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

--

-- Constant definitions

--

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

F1AP-Constants {

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

ngran-access (22) modules (3) f1ap (3) version1 (1) f1ap-Constants (4) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

[snip]

id-NRUESidelinkAggregateMaximumBitrateForA2X ProtocolIE-ID ::= 781

id-LTEUESidelinkAggregateMaximumBitrateForA2X ProtocolIE-ID ::= 782

id-NReRedCapUEIndication ProtocolIE-ID ::= 783

id-ERedcap-Bcast-Information ProtocolIE-ID ::= 784

id-NRPaginglongeDRXInformationforRRCINACTIVE ProtocolIE-ID ::= 785

id-U2URLCChannelQoS ProtocolIE-ID ::= 999 – to be assigned by MCC