3GPP TSG-RAN WG3 Meeting #129 R3-255830

Bengaluru, India, 25th ~29th Aug, 2025

Agenda Item: 11.4

Source: ZTE Corporation, Ericsson

Title: (TP to BL CR to 37.483) Cleanup on Data Collection procedure

Document for: Other

# 1 Introduction

This contribution is to reflect the agreements in CB:#13\_AIRAN\_SplitArch.

# 5 Text Proposal to 38.473

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

### 8.3.4 UE Context Modification (gNB-CU initiated)

#### 8.3.4.1 General

The purpose of the UE Context Modification procedure is to modify the established UE Context, e.g., establishing, modifying and releasing radio resources or sidelink resources. This procedure is also used to command the gNB-DU to stop data transmission for the UE for mobility (see TS 38.401 [4]). The procedure uses UE-associated signalling.

#### 8.3.4.2 Successful Operation



Figure 8.3.4.2-1: UE Context Modification procedure. Successful operation

The UE CONTEXT MODIFICATION REQUEST message is initiated by the gNB-CU.

Upon reception of the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall perform the modifications, and if successful reports the update in the UE CONTEXT MODIFICATION RESPONSE message.

If the *SpCell ID* IE is included in the UE CONTEXT MODIFICATION REQUEST message and neither the *LTM Information Modify* IE nor the *Conditional Intra-DU Mobility Information* IE is present, the gNB-DU shall replace any previously received value and regard it as a reconfiguration with sync as defined in TS 38.331 [8]. If the *ServCellIndex* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall take this into account for the indicated SpCell. If the *SpCell UL Configured* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall configure UL for the indicated SpCell accordingly. If the *servingCellMO* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall configure servingCellMO for the indicated SpCell accordingly. If the *servingCellMO List* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, configure servingCellMO after determining the list of BWPs for the UE and include the list of servingCellMOs that have been encoded in *CellGroupConfig* IE as *ServingCellMO-encoded-in-CGC List* IE in theUE CONTEXT MODIFICATION RESPONSE message.

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

If the *DL LBT Failure Information Request* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, consider that the gNB-CU requests collection of DL LBT failure information for the analysis of the MRO events of the UE specified in TS 38.300 [6], , and act as specified in TS 38.401 [4].

If the *Ranging and Sidelink Positioning Service Information* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, update its service information for the UE accordingly. If the *Ranging and Sidelink Positioning Authorized* IE within the *Ranging and Sidelink Positioning Service Information* IE is set to "not authorized", the gNB-DU shall, if supported, initiate actions to ensure that the UE is no longer accessing the Ranging and Sidelink Positioning service.

For each DRB that has been successfully established or modified and for which the *Performance Delay Monitoring* IE was included in the *DRB to Be Setup List* IE or in the *DRB to Be Modified List* IE contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, store this information and use it to perform or update delay measurements on the successfully established or modified DRBs.

**Interaction with UE Inactivity Notification procedure**

If the *SDT Volume Threshold* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, use the information during an SDT transaction to inform the gNB-CU via the UE INACTIVITY NOTIFICATION message as specified in TS 38.401 [4].

**Interaction with UE Context Setup or UE Context Modification (gNB-CU initiated) procedures**

If the UE CONTEXT MODIFICATION REQUEST message is sent for a UE context set up for S-CPAC and contains the *Transmission Action Indicator* IE set to "stop", the gNB-DU shall, if supported, reset the UE context for the included *SpCell ID* IE, prepare for subsequent CPAC. The gNB-DU shall include the *SpCell ID* IE as the *Requested Target Cell ID* IE in the UE CONTEXT MODIFICATION RESPONSE message.

#### 8.3.4.3 Unsuccessful Operation



Figure 8.3.4.3-1: UE Context Modification procedure. Unsuccessful operation

In case none of the requested modifications of the UE context can be successfully performed, the gNB-DU shall respond with the UE CONTEXT MODIFICATION FAILURE message with an appropriate cause value. If the *Conditional Intra-DU Mobility Information* IE was included in the UE CONTEXT MODIFICATION REQUEST message and set to "CHO-initiation", the gNB-DU shall include the received *SpCell ID* IE as the *Requested Target Cell ID* IE in the UE CONTEXT MODIFICATION FAILURE message.

If the gNB-DU is not able to accept the *SpCell ID* IE in UE CONTEXT MODIFICATION REQUEST message, it shall reply with the UE CONTEXT MODIFICATION FAILURE message.

If the *Conditional Intra-DU Mobility Information* IE was included and set to "CHO-initiation" or "CHO-replace", but the *SpCell ID* IE was not included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall respond with the UE CONTEXT MODIFICATION FAILURE message with an appropriate cause value.

If the *LTM Information Modify* IE was included, but the *SpCell ID* IE and the *CSI Resource Configuration* IE were not included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall respond with the UE CONTEXT MODIFICATION FAILURE message with an appropriate cause value.

If the gNB-DU is not able to accept the UE CONTEXT MODIFICATION REQUEST message for mobility because an LTM command has been triggered to the UE, it shall reply with the UE CONTEXT MODIFICATION FAILURE message with an appropriate cause value.

#### 8.3.4.4 Abnormal Conditions

If the gNB-DU receives a UE CONTEXT MODIFICATION REQUEST message containing a *E-UTRAN QoS* IE for a GBR QoS DRB but where the *GBR QoS Information* IE is not present, the gNB-DU shall report the establishment of the corresponding DRB as failed in the *DRB Failed to Setup List* IE of the UE CONTEXT MODIFICATION RESPONSE message with an appropriate cause value.

If the gNB-DU receives a UE CONTEXT MODIFICATION REQUEST message containing a *DRB QoS* IE for a GBR QoS DRB but where the *GBR QoS Flow Information* IE is not present, the gNB-DU shall report the establishment of the corresponding DRBs as failed in the *DRB Failed to Setup List* IE of the UE CONTEXT MODIFICATION RESPONSE message with an appropriate cause value.

If the *Delay Critical* IE is included in the *Dynamic 5QI Descriptor* IE within the *DRB QoS* IE in the UE CONTEXT MODIFICATION REQUEST message and is set to the value "delay critical" but the *Maximum Data Burst Volume* IE is not present, the gNB-DU shall report the establishment of the corresponding DRB as failed in the *DRB Failed to Setup List* IE of the of the UE CONTEXT MODIFICATION RESPONSE message with an appropriate cause value.

If one or more candidate cells in the *Candidate Cells To Be Cancelled List* IE included in the UE CONTEXT MODIFICATION REQUEST message were not prepared using the same UE-associated signaling connection, the gNB-DU shall ignore those non-associated candidate cells.

If more than one of the following IEs, i.e., the *Uplink TxDirectCurrentList Information* IE or the *Uplink TxDirectCurrentTwoCarrierList Information* IE or the *Uplink TxDirectCurrentMoreCarrierList Information* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall consider it as a logical error.

If one or more LTM cells in the *LTM Cells To Be Released List* IE included in the UE CONTEXT MODIFICATION REQUEST message were not prepared using the same UE-associated signaling connection, the gNB-DU shall ignore those non-associated LTM cells.

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

#### 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 Configured9.3.1.33 |  | YES | ignore |
| DRX Cycle  | O |  | 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 Configured9.3.1.33 |  | - |  |
| >>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 |  | QoS Flow Level QoS Parameters9.3.1.45 |  | - |  |
| >>>>>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 |
| >>>>PSI based SDU Discard UL | O |  | ENUMERATED (start, stop, …) | Indicates whether UL PSI based SDU discard is (re)configured or released for the DRB. The codepoint “start” means that UL PSI based discarding is (re)configured, while the codepoint “stop” means that UL PSI based discarding is released. Up to 8 DRBs can be set as “start”. | YES | ignore |
| >>>>Performance Delay Monitoring  | O |  | 9.3.1.xx |  | 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 Information9.3.2.1 | 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 |  | 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 or multi-path relay 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 Activation9.3.1.36 | 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 Information9.3.2.1 | 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 |  | QoS Flow Level QoS Parameters9.3.1.45 |  | - |  |
| >>>>>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 |
| >>>>PSI based SDU Discard UL | O |  | ENUMERATED (start, stop, …) | Indicates whether UL PSI based SDU discard is (re)configured or released for the DRB. The codepoint “start” means that UL PSI based discarding is (re)configured, while the codepoint “stop” means that UL PSI based discarding is released. Up to 8 DRBs can be set as “start”. | YES | ignore |
| >>>>Performance Delay Monitoring  | O |  | 9.3.1.xx | Only the “stop” codepoint value is used for this IE. | 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 Information9.3.2.1 | 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 |  | 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 or multi-path relay 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 |  | Duplication activation9.3.1.36 | 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 Information9.3.2.1 | 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 |  | BH RLC Channel ID9.3.1.113 |  | - |  |
| >>CHOICE *BH QoS information* | M |  |  |  |  |  |
| *>>>BH RLC CH QoS* |  |  |  |  |  |  |
| >>>>BH RLC CH QoS | M |  | QoS Flow Level QoS Parameters9.3.1.45 | Shall be used for SA case. |  |  |
| *>>>E-UTRAN BH RLC CH QoS* |  |  |  |  |  |  |
| >>>>E-UTRAN BH RLC CH QoS | M |  | E-UTRAN QoS9.3.1.19 | 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 |  | BH RLC Channel ID9.3.1.113 |  | - |  |
| >>CHOICE *BH QoS information* | O |  |  |  |  |  |
| *>>>BH RLC CH QoS* |  |  |  |  |  |  |
| >>>>BH RLC CH QoS | M |  | QoS Flow Level QoS Parameters9.3.1.45 | Shall be used for SA case. | - |  |
| *>>>E-UTRAN BH RLC CH QoS* |  |  |  |  |  |  |
| >>>>E-UTRAN BH RLC CH QoS | M |  | E-UTRAN QoS9.3.1.19 | 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 |  | BH RLC Channel ID9.3.1.113 |  | - |  |
| 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 Rate9.3.1.22 | 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* |  |  | - |  |
| >>>SL DRB QoS | M |  | PC5 QoS Parameters9.3.1.122 |  | - |  |
| **>>>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* |  |  | - |  |
| >>>SL DRB QoS | M |  | PC5 QoS Parameters9.3.1.122 |  | - |  |
| **>>>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 |
| >S-CPAC Request | O |  | ENUMERATED (initiation, …) | Indicates that SN change is for S-CPAC preparation. | YES | reject |
| >S-CPAC Lower Layer Reference Config Request | O |  | ENUMERATED (true, …) |  | YES | reject |
| 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 Rate9.3.1.119 | This IE applies only if the UE is authorized for 5G ProSe services. | YES | ignore |
| 5G ProSe PC5 Link Aggregate Bit Rate | O |  | Bit Rate9.3.1.22 | 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 Parameters9.3.1.45 |  | - |  |
| *>>>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 Parameters9.3.1.45 |  | - |  |
| *>>>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 Parameters9.3.1.45  |  | - |  |
| *>>>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 Parameters9.3.1.122 |  | - |  |
| >>RLC Mode | M |  | 9.3.1.27 |  | - |  |
| >>Peer UE ID | O |  | BIT STRING (SIZE(24)) | Corresponds to information provided in the *sl-DestinationIdentityL2-U2U* contained in the *SL-TxResourceReqL2-U2U* IE, defined in TS 38.331 [8].This IE is included if the gNB-CU UE F1AP ID and/or gNB-DU UE F1AP ID are associated with a L2 U2U Remote UE or L2 U2U Relay UE. | YES | reject |
| **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 Parameters9.3.1.45  |  | - |  |
| *>>>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 Parameters9.3.1.122 |  | - |  |
| >>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 List9.3.1.274 |  | 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, …) |  | - |  |
| >Reference Configuration | O |  | 9.3.1.292 |  | - |  |
| >CSI Resource Configuration | O |  | 9.3.1.330 |  | - |  |
| **LTM CFRA Resource Config List** |  | *0..1* |  |  | YES | ignore |
| **>LTM CFRA Resource Config Item IEs** |  | *1 .. <maxnoofLTMCells>* |  |  | EACH | ignore |
| >>Cell ID | M |  | NR CGI9.3.1.12 |  | - |  |
| >>LTM CFRA Resource Configuration | O |  | OCTET STRING | Includes the *RACH-ConfigDedicated* IE, as defined in TS 38.331 [8]. | - |  |
| >>LTM CFRA Resource Configuration for SUL | O |  | OCTET STRING | Includes the *RACH-ConfigDedicated* IE, as defined in TS 38.331 [8]. This IE applies for SUL carrier. | - |  |
| LTM Configuration ID Mapping List | O |  | 9.3.1.294 |  | YES | reject |
| **Early Sync Information Request** |  | *0..1* |  |  | YES | ignore |
| >Request for RACH Configuration | M |  | ENUMERATED (true, …) |  | - |  |
| **>LTM gNB-DUs ID List** |  | *1* |  | This IE contains the IDs of the source gNB-DU and candidate gNB-DU(s). | YES | reject |
| **>>LTM gNB-DUs Item IEs** |  | *1..< maxnoofLTMgNBDUs>* |  |  | - |  |
| >>>LTM gNB-DU ID | M |  | gNB-DU ID9.3.1.9 |  | - |  |
| **Early Sync Candidate Cell Information List** |  | *0..1* |  |  | YES | ignore |
| **>Early Sync Candidate Cell Information Item IEs** |  | *1 .. <maxnoofLTMCells>* |  |  | EACH | ignore |
| >>Cell ID | M |  | NR CGI9.3.1.12 |  | - |  |
| >>TCI States Configurations List | O |  | OCTET STRING | Includes the *LTM-TCI-Info*IE, as defined in TS 38.331 [8]. | - |  |
| >>Early UL Sync Configuration | O |  | 9.3.1.328 |  | - |  |
| >>Early UL Sync Configuration for SUL | O |  | Early UL Sync Configuration9.3.1.328 | This IE applies for SUL carrier. | - |  |
| >>TA Assistance Information | O |  | ENUMERATED (zero, …) | The value "zero" corresponds to TA value of the cell being equal to zero. | - |  |
| >>UE Based TA Measurement Configuration | O |  | OCTET STRING | Includes the *ltm-UE-MeasuredTA-ID* contained in the *LTM-Candidate* IE, as defined in TS 38.331 [8], for the LTM candidate cell identified by the *Cell ID* IE.  | - |  |
| >>SSB Positions In Burst | C-ifEarlyUL |  | 9.3.1.138 | This IE applies to early TA acquisition. | YES | ignore |
| **Early Sync Serving Cell Information** |  | *0..1* |  |  | YES | ignore |
| >UE Based TA Measurement Configuration | O |  | OCTET STRING | Includes the *ltm-ServingCellUE-MeasuredTA-ID* contained in the *LTM-Config* IE, as defined in TS 38.331 [8], for the current serving cell.  | - |  |
| LTM Cells To Be Released List | O |  | 9.3.1.291 |  | YES | reject |
| Path Addition Information | O |  | 9.3.1.296 |  | YES | reject |
| 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 |  | NR UE Sidelink Aggregate Maximum Bit Rate9.3.1.119 | 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 |  | LTE UE Sidelink Aggregate Maximum Bit Rate9.3.1.118 | This IE applies only if the UE is authorized for LTE A2X services. | YES | ignore |
| DL LBT Failure Information Request | O |  | ENUMERATED (inquiry, …) |  | YES | ignore |
| Ranging and Sidelink Positioning Service Information | O |  | 9.3.1.331 | This IE applies only if the UE is authorized for NR V2X services and/or 5G ProSe services. | YES | ignore |
| Non-Integer DRX Cycle | O |  | 9.3.1.344 |  | YES | ignore |
| LTM Reset Information | O |  | 9.3.1.346 |  | YES | ignore |

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

#### 9.3.1.xx Performance Delay Monitoring

This IE defines the parameters for performance delay measurements, and whether to stop an ongoing measurement.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| --- | --- | --- | --- | --- | --- | --- |
| Performance Delay Monitoring Request | M |  | ENUMERATED (UL and DL, stop,…)  | Indicates to measure UL and DL delay for the DRB, or to stop the ongoing measurement. | YES | ignore |
| Performance Delay Monitoring Reporting Periodicity  | O |  | ENUMERATED(ms500, ms1000, ms2000, ms5000, ms10000, …) | Periodicity of reporting of UL and DL delay for the DRB. | YES | ignore |

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

-- P

PerformanceDelayMonitoring ::= SEQUENCE {

 performanceDelayMonitoringRequest PerformanceDelayMonitoringRequest,

 performanceDelayMonitoringReportingPeriodicity PerformanceDelayMonitoringReportingPeriodicity OPTIONAL,

 iE-Extensions ProtocolExtensionContainer { { PerformanceDelayMonitoring-ExtIEs} } OPTIONAL,

 ...

}

PerformanceDelayMonitoring-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

 ...

}

PerformanceDelayMonitoringReportingPeriodicity ::= ENUMERATED {

 ms500,

 ms1000,

 ms2000,

 ms5000,

 ms10000,

 ...

}

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