**3GPP TSG-RAN WG3 #117-eR3-225245**

**Online, 15th - 24th August 2022 was R3-225169**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.473** | **CR** |  | **rev** | **2** | **Current version:** | **17.1.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **X** | Core Network |  |

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| ***Title:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | , Verizon Wireless, AT&T, China Unicom, Nokia, Nokia Shanghai Bell, ZTE | | | | | | | | | |
| ***Source to TSG:*** | R3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_MBS-Core | | | | |  | ***Date:*** | | | 2022-08-08 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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:*** | | F1AP currently does not support  - establishment of F1-U ptp retransmission tunnels in case the gNB-DU requests to change the MRB type configuration of a UE  - releasing MRBs for a UE configuration.  - establishment of F1-U “ptp forwarding” tunnels based on the source side provided MRB Progress information state  Further, the F1-U Context Descriptor IE needs to be re-structured | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Protocol elements are included in the gNB-DU triggered UE Context Modification Required procedure to inform the gNB-CU about the gNB-DUs decision to modify the MRB type configuration for a UE and to inform the gNB-DU that the gNB-CU decided to configure the UE with PDCP Status Report for the affected MRBs.  In addition the purpose of the Multicast Distribution Release procedure was generalised to also include the release of F1-U ptp-retransmission resources.  Support of establishment of “ptp forwarding” tunnels enabling retransmission based on source side provided MRB Progress information state is included  Reducing the content of the MBS Multicast F1-U Context Descriptor IE to a 3-octet reference which may include in addition an MBS Area Session ID (to indicate which location dependent content needs to be provided) and an indication whether a ptp F1-U context needs to be established for ptm transmission or ptp transmission or ptp retransmission.  Impact Analysis:  Impact assessment towards the previous version of the specification (same release):  This CR has isolated impact with the previous version of the specification (same release) because it introduces protocol support related to F1-U ptp retransmission tunnels for multicast MBS session resources.  The impact can be considered isolated because the change affects only multicast MBS session resource related functions for support of ptp retransmissions.  This CR introduces non-backwards compatible changes in ASN.1 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | F1AP would not support establishment of F1-U ptp retransmission tunnels in case the gNB-DU requests to change the MRB type configuration of a UE or for retransmission based on source side PDCP SN transmission state | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 8.1, 8.3.5.2, 8.14.x (new), 9.2.2.10, 9.2.2.11, 9.2.14.11, 9.3.2.8, 9.3.2.9, 9.3.2.x (new), 9.4.3, 9.4.4, 9.4.5, 9.4.7 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | |  | | |
| ***affected:*** | |  | **X** | Test specifications | | | |  | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | |  | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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

### 8.3.1 UE Context Setup

#### 8.3.1.1 General

The purpose of the UE Context Setup procedure is to establish the UE Context including, among others, SRB,DRB, BH RLC channel, Uu Relay RLC channel, PC5 Relay RLC channel, and SL DRB configuration. The procedure uses UE-associated signalling.

#### 8.3.1.2 Successful Operation



Figure 8.3.1.2-1: UE Context Setup Request procedure: Successful Operation

The gNB-CU initiates the procedure by sending UE CONTEXT SETUP REQUEST message to the gNB-DU. If the gNB-DU succeeds to establish the UE context, it replies to the gNB-CU with UE CONTEXT SETUP RESPONSE. If no UE-associated logical F1-connection exists, the UE-associated logical F1-connection shall be established as part of the procedure. The gNB-CU shall perform RRC Reconfiguration or RRC connection resume as described in TS 38.331 [8]. The *CellGroupConfig* IE shall transparently be signaled to the UE as specified in TS 38.331 [8]

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If the *Multicast MBS Session Setup List* IE is contained in the UE CONTEXT SETUP REQUEST message the gNB-DU shall, if supported, store and use the information for configuring MBS Session Resources, if applicable.

If the *UE Multicast MRB To Be Setup List* IE is contained in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, take it into account for configuring MBS Session Resources, if applicable. And if the *MBS PTP Retransmission Tunnel Required* IE is included in the *UE Multicast MRB to Be Setup Item IEs* IE, the gNB-DU shall, if supported trigger the establishment of the MBS PTP Retransmission F1-U tunnel. If the *MBS PTP Forwarding Tunnel Required Information* IE is included in the *UE Multicast MRB to Be Setup Item IEs* IE, the gNB-DU shall, if supported trigger the establishment of the MBS PTP Forwarding F1-U tunnel.

<<<<<<<<<<<<<<<<<<<< Next 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.

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

If the *Multicast MBS Session Setup List* IE or the *Multicast MBS Session Remove List* IE or both IEs are contained in the UE CONTEXT MODIFICATION REQUEST message the gNB-DU shall, if supported, store and use the information for configuring MBS Session Resources, if applicable.

If the *UE* *Multicast MRB To Be Setup Item* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, take it into account for configuring MBS Session Resources, if applicable. And if the *MBS PTP Retransmission Tunnel Required* IE is included in the *UE Multicast MRB to Be Setup Item IEs* IE, the gNB-DU shall, if supported trigger the establishment of the MBS PTP Retransmission F1-U tunnel. If the *MBS PTP Forwarding Tunnel Required Information* IE is included in the *UE Multicast MRB to Be Setup Item IEs* IE, the gNB-DU shall, if supported trigger the establishment of the MBS PTP Forwarding F1-U tunnel.

If the *Management Based MDT PLMN Modification* *List* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, overwrite any previously stored Management Based MDT PLMN List information in the UE context and use the received information to determine subsequent selection of the UE for management based MDT defined in TS 32.422 [29].

#### 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.

#### 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.

In case of "CHO-replace" when the *Target gNB-DU UE F1AP ID* IE is included, if the candidate cell in the *SpCell ID* IE included in the UE CONTEXT MODIFICATION REQUEST message was not prepared using the same UE-associated signalling connection, the gNB-DU shall ignore this candidate cell.

### 8.3.5 UE Context Modification Required (gNB-DU initiated)

#### 8.3.5.1 General

The purpose of the UE Context Modification Required procedure is to modify the established UE Context, e.g., modifying and releasing radio bearer resources, or sidelink radio bearer resources or candidate cells in conditional handover or conditional PSCell addition or conditional PSCell change. The procedure uses UE-associated signalling.

#### 8.3.5.2 Successful Operation



Figure 8.3.5.2-1: UE Context Modification Required procedure. Successful operation

The F1AP UE CONTEXT MODIFICATION REQUIRED message is initiated by the gNB-DU.

The gNB-CU reports the successful update of the UE context in the UE CONTEXT MODIFICATION CONFIRM message.

For a given bearer for which PDCP CA duplication was already configured, if two *DL UP TNL Information* IEs are included in UE CONTEXT MODIFICATION REQUIRED message for a DRB, the gNB-CU shall include two *UL UP TNL Information* IEs in UE CONTEXT MODIFICATION CONFIRM message. The gNB-CU and gNB-DU use the *UL UP TNL Information* IEs and *DL UP TNL Information* IEs to support packet duplication for intra-gNB-DU CA as defined in TS 38.470 [2], and the first *UP TNL Information* IE is still for the primary path.

For a given bearer for which PDCP CA duplication was already configured, if one or two *Additional PDCP Duplication UP TNL Information* IEs are included in the UE CONTEXT MODIFICATION REQUIRED message for a DRB, the gNB-CU shall, if supported, include one or two *Additional PDCP Duplication UP TNL Information* IEs in the UE CONTEXT MODIFICATION CONFIRM message. The gNB-CU and gNB-DU use the *Additional PDCP Duplication UP TNL Information* IEs to support packet duplication for intra-gNB-DU CA as defined in TS 38.470 [2].

If the *BH Information* IE is included in the *UL UP TNL Information to be setup List* IE or the *Additional PDCP Duplication TNL List* IE for a DRB, the gNB-DU shall, if supported, use the indicated BAP Routing ID and BH RLC channel for transmission of the corresponding GTP-U packets to the IAB-donor, as specified in TS 38.340 [30].

If the *Resource Coordination Transfer Container* IE is included in the UE CONTEXT MODIFICATION REQUIRED, the gNB-CU shall transparently transfer this information for the purpose of resource coordination as described in TS 36.423 [9], TS 38.423 [28].

For EN-DC operation, if the gNB-CU includes the *Resource Coordination Transfer Information* IE in the UE CONTEXT MODIFICATION CONFIRM message, the gNB-DU shall, if supported, use it for the purpose of resource coordination. If the gNB-CU received the MeNB Resource Coordination Information as defined in TS 36.423 [9], after completion of UE Context Modification Required procedures, the gNB-CU shall transparently transfer it to the gNB-DU via the *Resource Coordination Transfer Container* IE in the UE CONTEXT MODIFICATION CONFIRM message. The gNB-DU shall use the information received in the *Resource Coordination Transfer Container* IE for reception of MeNB Resource Coordination Information at the gNB acting as secondary node as described in TS 36.423 [9]. If the *Resource Coordination E-UTRA Cell Information* IE is included in the *Resource Coordination Transfer Information* IE, the gNB-DU shall store the information replacing previously received information for the same E-UTRA cell, and use the stored information for the purpose of resource coordination. If the *Ignore PRACH Configuration* IE is present and set to "true" the *E-UTRA PRACH Configuration* IE in the UE CONTEXT MODIFICATION CONFIRM message shall be ignored.

For NGEN-DC or NE-DC operation, if the gNB-CU includes the *Resource Coordination Transfer Information* IE in the UE CONTEXT MODIFICATION CONFIRM message, the gNB-DU shall, if supported, use it for the purpose of resource coordination. If the gNB-CU received the MR-DC Resource Coordination Information as defined in TS 38.423 [28], after completion of UE Context Modification Required procedures, the gNB-CU shall transparently transfer it to the gNB-DU via the *Resource Coordination Transfer Container* IE in the UE CONTEXT MODIFICATION CONFIRM message. The gNB-DU shall use the information received in the *Resource Coordination Transfer Container* IE for reception of MR-DC Resource Coordination Information at the gNB as described in TS 38.423 [28].

If the *DU to CU RRC Information* IE is included in the UE CONTEXT MODIFICATION REQUIRED message, the gNB-CU shall perform RRC Reconfiguration as described in TS 38.331 [8]. The *CellGroupConfig* IE shall transparently be signaled to the UE as specified in TS 38.331 [8].

If the UE CONTEXT MODIFICATION CONFIRM message includes the *Execute Duplication* IE, the gNB-DU shall perform CA based duplication, if configured, for the SRB for the included *RRC-Container* IE.

If the UE CONTEXT MODIFICATION REQUIRED message contains the *RLC Status* IE, the gNB-CU shall assume that RLC has been reestablished at the gNB-DU and may trigger PDCP data recovery.

If the *Candidate Cells To Be Cancelled List* IE is included in the UE CONTEXT MODIFICATION REQUIRED message, the gNB-CU shall consider that only the resources reserved for the candidate cells identified by the included NR CGIs and associated to the UE-associated signaling identified by the *gNB-CU UE F1AP ID* IE and the *gNB-CU UE F1AP ID* IE are about to be released by the gNB-DU.

If the *PC5 RLC Channel Required to be Modified List* IE or the *PC5 RLC Channel Required to be Released List* IE is included in the UE CONTEXT MODIFICATION REQUIRED message and the F1AP-IDs is associated with a U2N Relay UE, the *PC5 RLC Channel Required to be Modified List* IE or the *PC5 RLC Channel Required to be Released List* shall include the *Remote UE Local ID* and correspondingly, the *PC5 RLC Channel Modified Item IEs* in the UE CONTEXT MODIFICATION CONFIRM message shall include the *Remote UE Local ID* IE.

If the *UE Multicast MRB Required to Be Modified List* IE is included in the UE CONTEXT MODIFICATION REQUIRED message containing for an MRB the *MRB type reconfiguration* IE set to "true" the gNB-CU shall take the *MRB Reconfigured RLC mode* IE into account to reconfigure the UE and to decide whether to request a PDCP status report as specified in TS 38.300 [6] and include the *MBS PTP Retransmission Tunnel Required* IE in the *UE Multicast MRB Confirmed to Be Modified Item IEs* IE.

**Interaction with the Multicast Distribution Setup procedure:**

If the UE CONTEXT MODIFICATION CONFIRM message contains for an MRB the *MBS PTP Retransmission Tunnel Required* IE in the *UE Multicast MRB Confirmed to Be Modified Item IEs* IE the gNB-DU shall, if supported, trigger the Multicast Distribution Setup procedure to setup requested F1-U resources, if applicable.

#### 8.3.5.2A Unsuccessful Operation



Figure 8.3.5.2A-1: UE Context Modification Required procedure. Unsuccessful operation.

In case none of the requested modifications of the UE context can be successfully performed, the gNB-CU shall respond with the UE CONTEXT MODIFICATION REFUSE message with an appropriate cause value.

#### 8.3.5.3 Abnormal Conditions

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

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

### 8.14.10 Multicast Distribution Setup

#### 8.14.10.1 General

The purpose of the Multicast Distribution Setup procedure is to establish F1-U bearers for the multicast MBS session.

The procedure uses MBS Service associated signalling.

#### 8.14.10.2 Successful Operation



Figure 8.14.10.2-1: Multicast Distribution Setup procedure: Successful Operation

The gNB-DU initiates the procedure by sending MULTICAST DISTRIBUTION SETUP REQUEST message to the gNB-CU. If the gNB-CU succeeds to establish the multicast context, it replies to the gNB-DU with MULTICAST DISTRIBUTION SETUP RESPONSE.

The MULTICAST DISTRIBUTION SETUP REQUEST message shall contain F1-U TNL information for the MRBs accepted for the MBS Session by the gNB-DU and indicate either the NR CGI or the MBS Area Session ID or a UE reference, if the shared F1-U tunnel(s) for the MRB(s) are established on a per NR CGI or per MBS Area Session ID basis or for a ptp MRB leg.

Upon reception of the MULTICAST DISTRIBUTION SETUP REQUEST message the gNB-CU shall allocate F1-U resources and reply accordingly to the gNB-DU in the MULTICAST DISTRIBUTION SETUP RESPONSE message.

If the *MC F1-U Context usage* IE in the *MBS Multicast F1-U Context Descriptor* IE is set to "ptp forwarding" the gNB-CU shall, if supported, use the *MRB Progress Information* IE to determine at which PDCP SN to start transmitting multicast data to the gNB-DU.

#### 8.14.10.3 Unsuccessful Operation



Figure 8.14.10.3-1: Multicast Distribution Setup procedure: unsuccessful Operation

If the gNB-CU is not able to provide the requested resources it shall consider the procedure as failed and reply with the MULTICAST CONTEXT SETUP FAILURE message.

#### 8.14.10.4 Abnormal Conditions

Not applicable.

### 8.14.11 Multicast Distribution Release

#### 8.14.11.1 General

The purpose of the Multicast Distribution Release procedure is to enable the gNB-DU to order the release established shared F1-U tunnels.

The procedure uses MBS Service associated signalling.

#### 8.14.11.2 Successful Operation



Figure 8.14.11.2-1: Multicast Distribution Release procedure. Successful operation

The gNB-DU initiates the procedure by sending the MULTICAST DISTRIBUTION RELEASE COMMAND message to the gNB-CU.

Upon reception of the MULTICAST DISTRIBUTION RELEASE COMMAND message, the gNB-DU shall release all signalling and user data transport resources associated with the context and reply with the MULTICAST DISTRIBUTION RELEASE COMPLETE message.

#### 8.14.11.3 Unsuccessful Operation

Not applicable.

#### 8.14.11.4 Abnormal Conditions

Not applicable.

#### 9.3.2.8 MBS Multicast F1-U Context Descriptor

This IE contains a reference to a Multicast F1-U Context, information about the usage of the MBS Multicast F1-U Context and may contain an MBS Area Session ID.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| Multicast F1-U Context ReferenceF1 | M |  | 9.3.2.x |  |
| MC F1-U Context usage | M |  | ENUMERATED (ptm,  ptp,  ptp retransmission,  ptp forwarding, ...) | "ptm" indicates that the Multicast F1-U Context is setup for ptm transmissions; decided by the DU.  "ptp" indicates that the Multicast F1-U Context is setup for ptp transmissions; decided by the DU.  "ptp retransmission" indicates that the Multicast F1-U Context is setup for ptp retransmissions (based on PDCP Status Report); requested by the CU  "ptp forwarding" indicates that the Multicast F1-U Context is setup for transmitting from a defined MBS Progress Information status onwards; requested by the CU. |
| MBS Area Session ID | O |  | 9.3.1.221 |  |

#### 9.3.2.9 Void

Void.



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

#### 9.3.2.x Multicast F1-U Context Reference F1

This IE contains a reference to a Multicast F1-U Context associated with an MBS Session context in a gNB-DU.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| Multicast F1-U Bearer Context Reference | M |  | OCTET STRING (SIZE(4)) | This value is allocated to uniquely denote an Multicast F1-U Context within an MBS-associated logical F1-connection. |

#### 9.3.2.z MRB Progress Information

This IE contains the MRB progress Information.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| CHOICE *MRB Progress Information* | M |  |  |  |
| *>12bits* |  |  |  |  |
| >>PDCP SN Length 12 | M |  | INTEGER (0..4095) |  |
| *>18bits* |  |  |  |  |
| >>PDCP SN Length 18 | M |  | INTEGER (0..262143) |  |

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

#### 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 |

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|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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.z |  | - |  |

<<<<<<<<<<<<<<<<<<<< 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 |

<<<<<<<<<<<<<<<<<<<< Unmodified table rows Omitted >>>>>>>>>>>>>>>>>>>>

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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 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.z |  | - |  |
| **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 |

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

#### 9.2.2.10 UE CONTEXT MODIFICATION REQUIRED

This message is sent by the gNB-DU to request the modification of a UE context.

Direction: gNB-DU → gNB-CU.

| **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 |
| Resource Coordination Transfer Container | O |  | OCTET STRING | Includes the *SgNB Resource Coordination Information* IE as defined in subclause 9.2.117 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 |
| DU To CU RRC Information | O |  | 9.3.1.26 |  | YES | reject |
| **DRB Required to Be Modified List** |  | *0..1* |  |  | YES | reject |
| **>DRB Required to Be Modified Item IEs** |  | *1 .. <maxnoofDRBs>* |  |  | EACH | reject |
| >>DRB ID | M |  | 9.3.1.8 |  | - |  |
| **>>DL UP TNL Information to be setup List** |  | *0..1* |  |  | - |  |
| **>>>DL UP TNL Information to Be Setup Item IEs** |  | *1 .. <maxnoofDLUPTNLInformation>* |  |  | - |  |
| >>>>DL UP TNL Information | M |  | UP Transport Layer Information  9.3.2.1 | gNB-DU endpoint of the F1 transport bearer. For delivery of DL PDUs. | - |  |
| >>RLC Status | O |  | 9.3.1.69 | Indicates the RLC has been re-established at the gNB-DU. | 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 DL PDUs. | - |  |
| **SRB Required to be Released List** |  | *0..1* |  |  | YES | reject |
| **>SRB Required to be Released List Item IEs** |  | *1 .. <maxnoofSRBs>* |  |  | EACH | reject |
| >>SRB ID | M |  | 9.3.1.7 |  | - |  |
| **DRB Required to be Released List** |  | *0..1* |  |  | YES | reject |
| **>DRB Required to be Released List Item IEs** |  | *1 .. <maxnoofDRBs>* |  |  | EACH | reject |
| >>DRB ID | M |  | 9.3.1.8 |  | - |  |
| Cause | M |  | 9.3.1.2 |  | YES | ignore |
| **BH RLC Channel Required to be Released List** |  | *0..1* |  |  | YES | reject |
| **>BH RLC Channel Required to be Released Item IEs** |  | *1 .. <maxnoofBHRLCChannels>* |  |  | EACH | reject |
| >>BH RLC CH ID | M |  | 9.3.1.113 |  | - |  |
| **SL DRB Required to Be Modified List** |  | *0..1* |  |  | YES | reject |
| **>SL DRB Required to Be Modified Item IEs** |  | *1 .. <maxnoofSLDRBs>* |  |  | EACH | reject |
| >>SL DRB ID | M |  | 9.3.1.120 |  | - |  |
| **SL DRB Required to be Released List** |  | *0..1* |  |  | YES | reject |
| **>SL DRB Required to be Release Item IEs** |  | *1 .. <maxnoofSLDRBs>* |  |  | EACH | reject |
| >>SL DRB ID | M |  | 9.3.1.120 |  | - |  |
| Candidate Cells To Be Cancelled List |  | *0 .. <maxnoofCellsinCHO>* |  |  | YES | reject |
| >Target Cell ID | M |  | NR CGI  9.3.1.12 |  | - | - |
| **Uu RLC Channel Required to be Modified List** |  | *0..1* |  |  | YES | reject |
| **>Uu RLC Channel Required to be Modified Item IEs** |  | *1 .. <maxnoofUuRLCChannels>* |  |  | - |  |
| >>Uu RLC Channel ID | M |  | 9.3.1.266 |  | - |  |
| **Uu RLC Channel Required to be Released List** |  | *0..1* |  |  | YES | reject |
| **>Uu RLC Channel Required to be Released Item IEs** |  | *1 .. <maxnoofUuRLCChannels>* |  |  | - |  |
| >>Uu RLC Channel ID | M |  | 9.3.1.266 |  | - |  |
| **PC5 RLC Channel Required to be Modified List** |  | *0..1* |  |  | YES | reject |
| **>PC5 RLC Channel Required 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 |  | - |  |
| **PC5 RLC Channel Required to be Released List** |  | *0..1* |  |  | YES | reject |
| **>PC5 RLC Channel Required 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 |  | - |  |
| **UE Multicast MRB Required to Be Modified List** |  | *0..1* |  |  | YES | reject |
| **>UE Multicast MRB Required to Be Modified Item IEs** |  | *1 .. <maxnoofMRBsforUE>* |  |  | EACH | reject |
| >>MRB ID | M |  | 9.3.1.224 | MRB ID for the UE. | - |  |
| >>MRB type reconfiguration | O |  | ENUMERATED (true, ...) |  | - |  |
| >>MRB Reconfigured RLC mode | C-ifMRBTypeReconf |  | MRB RLC Configuration  9.3.1.xx |  | - |  |
| **UE Multicast MRB Required to Be Released List** |  | *0..1* |  |  | YES | reject |
| **>UE Multicast MRB Required to Be Released Item IEs** |  | *1 .. <maxnoofMRBsforUE>* |  |  | EACH | reject |
| >>MRB ID | M |  | 9.3.1.224 | MRB ID for the UE. | - |  |

|  |  |
| --- | --- |
| **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 per Relay UE, the maximum value is 32. |
| maxnoofPC5RLCChannels | Maximum no. of PC5 Relay RLC channels allowed for L2 U2N 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. |

|  |  |
| --- | --- |
| Condition | Explanation |
| ifMRBTypeReconf | This IE shall be present if the *MRB Type Reconfiguration* IE is present. |

#### 9.2.2.11 UE CONTEXT MODIFICATION CONFIRM

This message is sent by the gNB-CU to inform the gNB-DU the successful modification.

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 |
| 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 |
| **DRB Modified List** |  | *0..1* | |  | | The List of DRBs which are successfully modified. | YES | ignore |
| **>DRB Modified Item IEs** |  | *1 .. <maxnoofDRBs>* | |  | |  | EACH | ignore |
| >>DRB ID | M |  | | 9.3.1.8 | |  | - |  |
| **>>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 is not used in this version of the specification. | 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-DU endpoint of the F1 transport bearer. For delivery of UL PDUs. | - |  |
| >>>>BH Information | O |  | | 9.3.1.114 | |  | YES | ignore |
| RRC-Container | O |  | | 9.3.1.6 | | Includes the DL-DCCH-Message IE as defined in subclause 6.2 of TS 38.331 [8], encapsulated in a PDCP PDU. | YES | ignore |
| Criticality Diagnostics | O |  | | 9.3.1.3 | |  | YES | ignore |
| Execute Duplication | O |  | | ENUMERATED (true, ...) | | This IE may be sent only if duplication has been configured for the UE. | YES | ignore |
| Resource Coordination Transfer Information | O |  | | 9.3.1.73 | |  | YES | ignore |
| **SL DRB Modified List** |  | | *0..1* |  |  | | YES | reject |
| **>SL DRB Modified Item IEs** |  | | *1 .. <maxnoofSLDRBs>* |  |  | | EACH | reject |
| >>SL DRB ID | M | |  | 9.3.1.120 |  | | - |  |
| **Uu RLC Channel Modified List** |  | | *0..1* |  |  | | YES | reject |
| **>Uu RLC Channel Modified Item IEs** |  | | *1 .. <maxnoofUuRLCChannels>* |  |  | | - |  |
| >>Uu RLC Channel ID | M | |  | 9.3.1.266 |  | | - |  |
| **PC5 RLC Channel Modified List** |  | | *0..1* |  |  | | YES | reject |
| **>PC5 RLC Channel Modified Item IEs** |  | | *1 .. <maxnoofPC5RLCChannels>* |  |  | |  | - |
| >>PC5 RLC Channel ID | M | |  | 9.3.1.265 |  | | - |  |
| >>Remote UE Local ID | O | |  | 9.3.1.267 |  | | - |  |
| **UE Multicast MRB Confirmed to Be Modified List** |  | | *0..1* |  |  | | YES | reject |
| **>UE Multicast MRB Confirmed to Be Modified 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 |  | | - |  |

|  |  |
| --- | --- |
| 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 per Relay UE, the maximum value is 32. |
| maxnoofPC5RLCChannels | Maximum no. of PC5 Relay RLC channels allowed for L2 U2N relaying per Remote UE or Relay UE, the maximum value is 512. |

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

#### 9.2.14.10 MULTICAST DISTRIBUTION SETUP REQUEST

This message is sent by the gNB-DU to request the setup of a Multicast F1-U Context.

Direction: gNB-DU → gNB-CU.

| 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 MBS F1AP ID | M |  | 9.3.1.219 |  | YES | reject |
| gNB-DU MBS F1AP ID | M |  | 9.3.1.220 |  | YES | reject |
| MBS Multicast F1-U Context Descriptor | M |  | 9.3.2.8 |  | YES | reject |
| **Multicast F1-U Context To Be Setup List** |  | *1* |  |  | YES | reject |
| **>Multicast F1-U Context To Be Setup Item** |  | *1 .. <maxnoofMRBs>* |  |  | EACH | reject |
| >>MRB ID | M |  | 9.3.1.224 |  | - |  |
| >>MRB F1-U TNL Info at DU | M |  | UP Transport Layer Information  9.3.2.1 | gNB-DU endpoint of the F1-U transport bearer. | - |  |
| >> MRB Progress Information | C-ifPTPForwarding |  | 9.3.2.z |  | - |  |

|  |  |
| --- | --- |
| Range bound | Explanation |
| *maxnoofMRBs* | Maximum no. of MRB allowed to be setup for one MBS Session, the maximum value is 32. |
| *maxnoofMBSQoSFlows* | Maximum no. of flows allowed to be mapped to one MRB, the maximum value is 64. |

|  |  |
| --- | --- |
| Condition | Explanation |
| ifPTPForwarding | This IE shall be present if the *MC F1-U Context usage* IE in the *MBS Multicast F1-U Context Descriptor* IE is set to "ptp forwarding". |

#### 9.3.1.xx MRB RLC Configuration

This ID provides MRB RLC Configuration Information and is provided by the gNB-DU.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| MRB RLC Configuration | M |  | ENUMERATED ( rlc-um-ptp,  rlc-am-ptp,  rlc-um-dl-ptm,  two-rlc-um-dl-ptp-and-dl-ptm,  three-rlc-um-dl-ptp-ul-ptp-dl-ptm,  two-rlc-am-ptp-um-dl-ptm, ...) | The various codepoints correspond to MRB configurations specified in TS 38.300 [6] as follows:  "rlc-um-ptp ": Multicast MRB with DL only RLC-UM or bidirectional RLC-UM configuration for PTP transmission;  "rlc-am-ptp " Multicast MRB with RLC-AM entity configuration for PTP transmission;  " rlc-um-dl-ptm " Multicast MRB with DL only RLC-UM entity for PTM transmission;  "two-rlc-um-dl-ptp-and-dl-ptm ": Multicast MRB with two RLC-UM entities, one DL only RLC-UM entity for PTP transmission and the other DL only RLC-UM entity for PTM transmission;  "three-rlc-um-dl-ptp-ul-ptp-dl-ptm ": Multicast MRB with three RLC-UM entities, one DL RLC-UM entity and one UL RLC-UM entity for PTP transmission and the other DL only RLC-UM entity for PTM transmission;  "two-rlc-am-ptp-um-dl-ptm "; Multicast MRB with two RLC entities, one RLC-AM entity for PTP transmission and the other DL only RLC-UM entity for PTM transmission; |

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

### 

### 9.4.4 PDU Definitions

-- ASN1START

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

--

-- PDU definitions for F1AP.

--

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

F1AP-PDU-Contents {

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

ngran-access (22) modules (3) f1ap (3) version1 (1) f1ap-PDU-Contents (1) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

--

-- IE parameter types from other modules.

--

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

IMPORTS

BroadcastMRBs-FailedToBeModified-Item,

BroadcastMRBs-FailedToBeSetup-Item,

BroadcastMRBs-FailedToBeSetupMod-Item,

BroadcastMRBs-Modified-Item,

BroadcastMRBs-Setup-Item,

BroadcastMRBs-SetupMod-Item,

BroadcastMRBs-ToBeModified-Item,

BroadcastMRBs-ToBeReleased-Item,

BroadcastMRBs-ToBeSetup-Item,

BroadcastMRBs-ToBeSetupMod-Item,

Candidate-SpCell-Item,

Cause,

Cells-Failed-to-be-Activated-List-Item,

Cells-Status-Item,

Cells-to-be-Activated-List-Item,

Cells-to-be-Deactivated-List-Item,

CellULConfigured,

CriticalityDiagnostics,

C-RNTI,

CUtoDURRCInformation,

DRB-Activity-Item,

DRBID,

DRBs-FailedToBeModified-Item,

DRBs-FailedToBeSetup-Item,

DRBs-FailedToBeSetupMod-Item,

DRB-Notify-Item,

DRBs-ModifiedConf-Item,

DRBs-Modified-Item,

DRBs-Required-ToBeModified-Item,

DRBs-Required-ToBeReleased-Item,

DRBs-Setup-Item,

DRBs-SetupMod-Item,

DRBs-ToBeModified-Item,

DRBs-ToBeReleased-Item,

DRBs-ToBeSetup-Item,

DRBs-ToBeSetupMod-Item,

DRXCycle,

DRXConfigurationIndicator,

DUtoCURRCInformation,

EUTRANQoS,

ExecuteDuplication,

FullConfiguration,

GNB-CU-MBS-F1AP-ID,

GNB-CU-UE-F1AP-ID,

GNB-DU-MBS-F1AP-ID,

GNB-DU-UE-F1AP-ID,

GNB-DU-ID,

GNB-DU-Served-Cells-Item,

GNB-DU-System-Information,

GNB-CU-Name,

GNB-DU-Name,

InactivityMonitoringRequest,

InactivityMonitoringResponse,

LowerLayerPresenceStatusChange,

MBS-Area-Session-ID,

MBS-CUtoDURRCInformation,

MBSMulticastF1UContextDescriptor,

MBS-Session-ID,

MBS-ServiceArea,

MulticastF1UContext-ToBeSetup-Item,

MulticastF1UContext-Setup-Item,

MulticastF1UContext-FailedToBeSetup-Item,

MulticastMBSSessionList,

MulticastMRBs-ToBeSetup-Item,

MulticastMRBs-Setup-Item,

MulticastMRBs-FailedToBeSetup-Item,

MulticastMRBs-ToBeSetupMod-Item,

MulticastMRBs-ToBeModified-Item,

MulticastMRBs-ToBeReleased-Item,

MulticastMRBs-SetupMod-Item,

MulticastMRBs-FailedToBeSetupMod-Item,

MulticastMRBs-Modified-Item,

MulticastMRBs-FailedToBeModified-Item,

BroadcastAreaScope,

NotificationControl,

NRCGI,

NRPCI,

UEContextNotRetrievable,

Potential-SpCell-Item,

RAT-FrequencyPriorityInformation,

RequestedSRSTransmissionCharacteristics,

ResourceCoordinationTransferContainer,

RRCContainer,

RRCContainer-RRCSetupComplete,

RRCReconfigurationCompleteIndicator,

SCellIndex,

SCell-ToBeRemoved-Item,

SCell-ToBeSetup-Item,

SCell-ToBeSetupMod-Item,

SCell-FailedtoSetup-Item,

SCell-FailedtoSetupMod-Item,

ServCellIndex,

Served-Cell-Information,

Served-Cells-To-Add-Item,

Served-Cells-To-Delete-Item,

Served-Cells-To-Modify-Item,

ServingCellMO,

SNSSAI,

SRBID,

SRBs-FailedToBeSetup-Item,

SRBs-FailedToBeSetupMod-Item,

SRBs-Required-ToBeReleased-Item,

SRBs-ToBeReleased-Item,

SRBs-ToBeSetup-Item,

SRBs-ToBeSetupMod-Item,

SRBs-Modified-Item,

SRBs-Setup-Item,

SRBs-SetupMod-Item,

TimeToWait,

TransactionID,

TransmissionActionIndicator,

UE-associatedLogicalF1-ConnectionItem,

UEIdentity-List-For-Paging-Item,

DUtoCURRCContainer,

PagingCell-Item,

SItype-List,

UEIdentityIndexValue,

GNB-CU-TNL-Association-Setup-Item,

GNB-CU-TNL-Association-Failed-To-Setup-Item,

GNB-CU-TNL-Association-To-Add-Item,

GNB-CU-TNL-Association-To-Remove-Item,

GNB-CU-TNL-Association-To-Update-Item,

MaskedIMEISV,

PagingDRX,

PagingPriority,

PagingIdentity,

Cells-to-be-Barred-Item,

PWSSystemInformation,

Broadcast-To-Be-Cancelled-Item,

Cells-Broadcast-Cancelled-Item,

NR-CGI-List-For-Restart-Item,

PWS-Failed-NR-CGI-Item,

RepetitionPeriod,

NumberofBroadcastRequest,

Cells-To-Be-Broadcast-Item,

Cells-Broadcast-Completed-Item,

Cancel-all-Warning-Messages-Indicator,

EUTRA-NR-CellResourceCoordinationReq-Container,

EUTRA-NR-CellResourceCoordinationReqAck-Container,

RequestType,

PLMN-Identity,

RLCFailureIndication,

UplinkTxDirectCurrentListInformation,

SULAccessIndication,

Protected-EUTRA-Resources-Item,

GNB-DUConfigurationQuery,

BitRate,

RRC-Version,

GNBDUOverloadInformation,

RRCDeliveryStatusRequest,

NeedforGap,

RRCDeliveryStatus,

ResourceCoordinationTransferInformation,

Dedicated-SIDelivery-NeededUE-Item,

Associated-SCell-Item,

IgnoreResourceCoordinationContainer,

PagingOrigin,

UAC-Assistance-Info,

RANUEID,

GNB-DU-TNL-Association-To-Remove-Item,

NotificationInformation,

TraceActivation,

TraceID,

Neighbour-Cell-Information-Item,

SymbolAllocInSlot,

NumDLULSymbols,

AdditionalRRMPriorityIndex,

DUCURadioInformationType,

CUDURadioInformationType,

Transport-Layer-Address-Info,

BHChannels-ToBeSetup-Item,

BHChannels-Setup-Item,

BHChannels-FailedToBeSetup-Item,

BHChannels-ToBeModified-Item,

BHChannels-ToBeReleased-Item,

BHChannels-ToBeSetupMod-Item,

BHChannels-FailedToBeModified-Item,

BHChannels-FailedToBeSetupMod-Item,

BHChannels-Modified-Item,

BHChannels-SetupMod-Item,

BHChannels-Required-ToBeReleased-Item,

BAPAddress,

BAPPathID,

BAPRoutingID,

BH-Routing-Information-Added-List-Item,

BH-Routing-Information-Removed-List-Item,

Child-Nodes-List,

Child-Nodes-List-Item,

Child-Node-Cells-List,

Child-Node-Cells-List-Item,

Activated-Cells-to-be-Updated-List,

Activated-Cells-to-be-Updated-List-Item,

UL-BH-Non-UP-Traffic-Mapping,

IABTNLAddressesRequested,

IABIPv6RequestType,

IAB-TNL-Addresses-To-Remove-Item,

IABTNLAddress,

IAB-Allocated-TNL-Address-Item,

IABv4AddressesRequested,

TrafficMappingInfo,

UL-UP-TNL-Information-to-Update-List-Item,

UL-UP-TNL-Address-to-Update-List-Item,

DL-UP-TNL-Address-to-Update-List-Item,

NRV2XServicesAuthorized,

LTEV2XServicesAuthorized,

NRUESidelinkAggregateMaximumBitrate,

LTEUESidelinkAggregateMaximumBitrate,

SLDRBs-SetupMod-Item,

SLDRBs-ModifiedConf-Item,

SLDRBID,

SLDRBs-FailedToBeModified-Item,

SLDRBs-FailedToBeSetup-Item,

SLDRBs-FailedToBeSetupMod-Item,

SLDRBs-Modified-Item,

SLDRBs-Required-ToBeModified-Item,

SLDRBs-Required-ToBeReleased-Item,

SLDRBs-Setup-Item,

SLDRBs-ToBeModified-Item,

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CellMeasurementResultList,

ReportingPeriodicity,

TNLCapacityIndicator,

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ConditionalInterDUMobilityInformation,

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TargetCellList,

MDTPLMNList,

PrivacyIndicator,

TransportLayerAddress,

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NID,

PosAssistance-Information,

PosBroadcast,

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PosMeasurementQuantities,

PosMeasurementResultList,

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TRPInformationTypeItem,

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LMF-MeasurementID,

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LMF-UE-MeasurementID,

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RelativeTime1900,

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SCGIndicator,

SpatialRelationPerSRSResource,

MeasurementPeriodicityExtended,

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CCO-Assistance-Information,

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BAP-Header-Rewriting-Added-List-Item,

Re-routingEnableIndicator,

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Neighbour-Node-Cells-List,

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NA-Resource-Configuration-List,

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PRSConfigRequestType,

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NRRedCapUEIndication,

NRPagingeDRXInformation,

NRPagingeDRXInformationforRRCINACTIVE,

QoEInformation,

CG-SDTQueryIndication,

CG-SDTKeptIndicator,

CG-SDTSessionInfo,

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FiveG-ProSeAuthorized,

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PC5RLCChannelRequiredToBeModifiedList,

PC5RLCChannelRequiredToBeReleasedList,

PC5RLCChannelModifiedList,

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PEIPSAssistanceInfo,

UEPagingCapability,

GNBDUUESliceMaximumBitRateList,

MDTPollutedMeasurementIndicator,

UE-MulticastMRBs-ConfirmedToBeModified-Item,

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UE-MulticastMRBs-RequiredToBeReleased-Item,

UE-MulticastMRBs-ToBeReleased-Item,

UE-MulticastMRBs-ToBeSetup-Item,

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ProtocolExtensionContainer{},

ProtocolIE-Container{},

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id-BroadcastMRBs-FailedToBeModified-List,

id-BroadcastMRBs-FailedToBeModified-Item,

id-BroadcastMRBs-FailedToBeSetup-List,

id-BroadcastMRBs-FailedToBeSetup-Item,

id-BroadcastMRBs-FailedToBeSetupMod-List,

id-BroadcastMRBs-FailedToBeSetupMod-Item,

id-BroadcastMRBs-Modified-List,

id-BroadcastMRBs-Modified-Item,

id-BroadcastMRBs-Setup-List,

id-BroadcastMRBs-Setup-Item,

id-BroadcastMRBs-SetupMod-List,

id-BroadcastMRBs-SetupMod-Item,

id-BroadcastMRBs-ToBeModified-List,

id-BroadcastMRBs-ToBeModified-Item,

id-BroadcastMRBs-ToBeReleased-List,

id-BroadcastMRBs-ToBeReleased-Item,

id-BroadcastMRBs-ToBeSetup-List,

id-BroadcastMRBs-ToBeSetup-Item,

id-BroadcastMRBs-ToBeSetupMod-List,

id-BroadcastMRBs-ToBeSetupMod-Item,

id-Candidate-SpCell-Item,

id-Candidate-SpCell-List,

id-Cause,

id-Cancel-all-Warning-Messages-Indicator,

id-Cells-Failed-to-be-Activated-List,

id-Cells-Failed-to-be-Activated-List-Item,

id-Cells-Status-Item,

id-Cells-Status-List,

id-Cells-to-be-Activated-List,

id-Cells-to-be-Activated-List-Item,

id-Cells-to-be-Deactivated-List,

id-Cells-to-be-Deactivated-List-Item,

id-ConfirmedUEID,

id-CriticalityDiagnostics,

id-C-RNTI,

id-CUtoDURRCInformation,

id-DRB-Activity-Item,

id-DRB-Activity-List,

id-DRBs-FailedToBeModified-Item,

id-DRBs-FailedToBeModified-List,

id-DRBs-FailedToBeSetup-Item,

id-DRBs-FailedToBeSetup-List,

id-DRBs-FailedToBeSetupMod-Item,

id-DRBs-FailedToBeSetupMod-List,

id-DRBs-ModifiedConf-Item,

id-DRBs-ModifiedConf-List,

id-DRBs-Modified-Item,

id-DRBs-Modified-List,

id-DRB-Notify-Item,

id-DRB-Notify-List,

id-DRBs-Required-ToBeModified-Item,

id-DRBs-Required-ToBeModified-List,

id-DRBs-Required-ToBeReleased-Item,

id-DRBs-Required-ToBeReleased-List,

id-DRBs-Setup-Item,

id-DRBs-Setup-List,

id-DRBs-SetupMod-Item,

id-DRBs-SetupMod-List,

id-DRBs-ToBeModified-Item,

id-DRBs-ToBeModified-List,

id-DRBs-ToBeReleased-Item,

id-DRBs-ToBeReleased-List,

id-DRBs-ToBeSetup-Item,

id-DRBs-ToBeSetup-List,

id-DRBs-ToBeSetupMod-Item,

id-DRBs-ToBeSetupMod-List,

id-DRXCycle,

id-DUtoCURRCInformation,

id-ExecuteDuplication,

id-FullConfiguration,

id-gNB-CU-MBS-F1AP-ID,

id-gNB-CU-UE-F1AP-ID,

id-gNB-DU-MBS-F1AP-ID,

id-gNB-DU-UE-F1AP-ID,

id-gNB-DU-ID,

id-GNB-DU-Served-Cells-Item,

id-gNB-DU-Served-Cells-List,

id-gNB-CU-Name,

id-gNB-DU-Name,

id-Extended-GNB-CU-Name,

id-Extended-GNB-DU-Name,

id-InactivityMonitoringRequest,

id-InactivityMonitoringResponse,

id-MBS-Area-Session-ID,

id-MBS-CUtoDURRCInformation,

id-MBS-Session-ID,

id-MBS-ServiceArea,

id-MBSMulticastF1UContextDescriptor,

id-MulticastMBSSessionSetupList,

id-MulticastMBSSessionRemoveList,

id-MulticastMRBs-FailedToBeModified-List,

id-MulticastMRBs-FailedToBeModified-Item,

id-MulticastMRBs-FailedToBeSetup-List,

id-MulticastMRBs-FailedToBeSetup-Item,

id-MulticastMRBs-FailedToBeSetupMod-List,

id-MulticastMRBs-FailedToBeSetupMod-Item,

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id-MulticastMRBs-Modified-Item,

id-MulticastMRBs-Setup-List,

id-MulticastMRBs-Setup-Item,

id-MulticastMRBs-SetupMod-List,

id-MulticastMRBs-SetupMod-Item,

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id-MulticastMRBs-ToBeModified-Item,

id-MulticastMRBs-ToBeReleased-List,

id-MulticastMRBs-ToBeReleased-Item,

id-MulticastMRBs-ToBeSetup-List,

id-MulticastMRBs-ToBeSetup-Item,

id-MulticastMRBs-ToBeSetupMod-List,

id-MulticastMRBs-ToBeSetupMod-Item,

id-MulticastF1UContext-ToBeSetup-List,

id-MulticastF1UContext-ToBeSetup-Item,

id-MulticastF1UContext-Setup-List,

id-MulticastF1UContext-Setup-Item,

id-MulticastF1UContext-FailedToBeSetup-List,

id-MulticastF1UContext-FailedToBeSetup-Item,

id-BroadcastAreaScope,

id-new-gNB-CU-UE-F1AP-ID,

id-new-gNB-DU-UE-F1AP-ID,

id-oldgNB-DU-UE-F1AP-ID,

id-PLMNAssistanceInfoForNetShar,

id-Potential-SpCell-Item,

id-Potential-SpCell-List,

id-RAT-FrequencyPriorityInformation,

id-RedirectedRRCmessage,

id-ResetType,

id-RequestedSRSTransmissionCharacteristics,

id-ResourceCoordinationTransferContainer,

id-RRCContainer,

id-RRCContainer-RRCSetupComplete,

id-RRCReconfigurationCompleteIndicator,

id-SCell-FailedtoSetup-List,

id-SCell-FailedtoSetup-Item,

id-SCell-FailedtoSetupMod-List,

id-SCell-FailedtoSetupMod-Item,

id-SCell-ToBeRemoved-Item,

id-SCell-ToBeRemoved-List,

id-SCell-ToBeSetup-Item,

id-SCell-ToBeSetup-List,

id-SCell-ToBeSetupMod-Item,

id-SCell-ToBeSetupMod-List,

id-SDT-Termination-Request,

id-SelectedPLMNID,

id-Served-Cells-To-Add-Item,

id-Served-Cells-To-Add-List,

id-Served-Cells-To-Delete-Item,

id-Served-Cells-To-Delete-List,

id-Served-Cells-To-Modify-Item,

id-Served-Cells-To-Modify-List,

id-ServCellIndex,

id-ServingCellMO,

id-SNSSAI,

id-SpCell-ID,

id-SpCellULConfigured,

id-SRBID,

id-SRBs-FailedToBeSetup-Item,

id-SRBs-FailedToBeSetup-List,

id-SRBs-FailedToBeSetupMod-Item,

id-SRBs-FailedToBeSetupMod-List,

id-SRBs-Required-ToBeReleased-Item,

id-SRBs-Required-ToBeReleased-List,

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id-SRBs-ToBeSetup-Item,

id-SRBs-ToBeSetup-List,

id-SRBs-ToBeSetupMod-Item,

id-SRBs-ToBeSetupMod-List,

id-SRBs-Modified-Item,

id-SRBs-Modified-List,

id-SRBs-Setup-Item,

id-SRBs-Setup-List,

id-SRBs-SetupMod-Item,

id-SRBs-SetupMod-List,

id-TimeToWait,

id-TransactionID,

id-TransmissionActionIndicator,

id-UEContextNotRetrievable,

id-UE-associatedLogicalF1-ConnectionItem,

id-UE-associatedLogicalF1-ConnectionListResAck,

id-UEIdentity-List-For-Paging-List,

id-UEIdentity-List-For-Paging-Item,

id-UE-MulticastMRBs-ConfirmedToBeModified-List,

id-UE-MulticastMRBs-ConfirmedToBeModified-Item,

id-UE-MulticastMRBs-RequiredToBeModified-List,

id-UE-MulticastMRBs-RequiredToBeModified-Item,

id-UE-MulticastMRBs-RequiredToBeReleased-List,

id-UE-MulticastMRBs-RequiredToBeReleased-Item,

id-UE-MulticastMRBs-ToBeReleased-List,

id-UE-MulticastMRBs-ToBeReleased-Item,

id-UE-MulticastMRBs-ToBeSetup-List,

id-UE-MulticastMRBs-ToBeSetup-Item,

id-DUtoCURRCContainer,

id-NRCGI,

id-PagingCell-Item,

id-PagingCell-List,

id-PagingDRX,

id-PagingPriority,

id-SItype-List,

id-UEIdentityIndexValue,

id-GNB-CU-TNL-Association-Setup-List,

id-GNB-CU-TNL-Association-Setup-Item,

id-GNB-CU-TNL-Association-Failed-To-Setup-List,

id-GNB-CU-TNL-Association-Failed-To-Setup-Item,

id-GNB-CU-TNL-Association-To-Add-Item,

id-GNB-CU-TNL-Association-To-Add-List,

id-GNB-CU-TNL-Association-To-Remove-Item,

id-GNB-CU-TNL-Association-To-Remove-List,

id-GNB-CU-TNL-Association-To-Update-Item,

id-GNB-CU-TNL-Association-To-Update-List,

id-MaskedIMEISV,

id-PagingIdentity,

id-Cells-to-be-Barred-List,

id-Cells-to-be-Barred-Item,

id-PWSSystemInformation,

id-RepetitionPeriod,

id-NumberofBroadcastRequest,

id-Cells-To-Be-Broadcast-List,

id-Cells-To-Be-Broadcast-Item,

id-Cells-Broadcast-Completed-List,

id-Cells-Broadcast-Completed-Item,

id-Broadcast-To-Be-Cancelled-List,

id-Broadcast-To-Be-Cancelled-Item,

id-Cells-Broadcast-Cancelled-List,

id-Cells-Broadcast-Cancelled-Item,

id-NR-CGI-List-For-Restart-List,

id-NR-CGI-List-For-Restart-Item,

id-PWS-Failed-NR-CGI-List,

id-PWS-Failed-NR-CGI-Item,

id-EUTRA-NR-CellResourceCoordinationReq-Container,

id-EUTRA-NR-CellResourceCoordinationReqAck-Container,

id-Protected-EUTRA-Resources-List,

id-RequestType,

id-ServingPLMN,

id-DRXConfigurationIndicator,

id-RLCFailureIndication,

id-UplinkTxDirectCurrentListInformation,

id-SULAccessIndication,

id-Protected-EUTRA-Resources-Item,

id-GNB-DUConfigurationQuery,

id-GNB-DU-UE-AMBR-UL,

id-GNB-CU-RRC-Version,

id-GNB-DU-RRC-Version,

id-GNBDUOverloadInformation,

id-NeedforGap,

id-RRCDeliveryStatusRequest,

id-RRCDeliveryStatus,

id-Dedicated-SIDelivery-NeededUE-List,

id-Dedicated-SIDelivery-NeededUE-Item,

id-ResourceCoordinationTransferInformation,

id-Associated-SCell-List,

id-Associated-SCell-Item,

id-IgnoreResourceCoordinationContainer,

id-UAC-Assistance-Info,

id-RANUEID,

id-PagingOrigin,

id-GNB-DU-TNL-Association-To-Remove-Item,

id-GNB-DU-TNL-Association-To-Remove-List,

id-NotificationInformation,

id-TraceActivation,

id-TraceID,

id-Neighbour-Cell-Information-List,

id-Neighbour-Cell-Information-Item,

id-SymbolAllocInSlot,

id-NumDLULSymbols,

id-AdditionalRRMPriorityIndex,

id-DUCURadioInformationType,

id-CUDURadioInformationType,

id-LowerLayerPresenceStatusChange,

id-Transport-Layer-Address-Info,

id-BHChannels-ToBeSetup-List,

id-BHChannels-ToBeSetup-Item,

id-BHChannels-Setup-List,

id-BHChannels-Setup-Item,

id-BHChannels-ToBeModified-Item,

id-BHChannels-ToBeModified-List,

id-BHChannels-ToBeReleased-Item,

id-BHChannels-ToBeReleased-List,

id-BHChannels-ToBeSetupMod-Item,

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id-BHChannels-Modified-Item,

id-BHChannels-Modified-List,

id-BHChannels-SetupMod-Item,

id-BHChannels-SetupMod-List,

id-BHChannels-Required-ToBeReleased-Item,

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id-BAPAddress,

id-ConfiguredBAPAddress,

id-BH-Routing-Information-Added-List,

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id-BH-Routing-Information-Removed-List,

id-BH-Routing-Information-Removed-List-Item,

id-UL-BH-Non-UP-Traffic-Mapping,

id-Child-Nodes-List,

id-Activated-Cells-to-be-Updated-List,

id-IABIPv6RequestType,

id-IAB-TNL-Addresses-To-Remove-List,

id-IAB-TNL-Addresses-To-Remove-Item,

id-IAB-Allocated-TNL-Address-List,

id-IAB-Allocated-TNL-Address-Item,

id-IABv4AddressesRequested,

id-TrafficMappingInformation,

id-UL-UP-TNL-Information-to-Update-List,

id-UL-UP-TNL-Information-to-Update-List-Item,

id-UL-UP-TNL-Address-to-Update-List,

id-UL-UP-TNL-Address-to-Update-List-Item,

id-DL-UP-TNL-Address-to-Update-List,

id-DL-UP-TNL-Address-to-Update-List-Item,

id-NRV2XServicesAuthorized,

id-LTEV2XServicesAuthorized,

id-NRUESidelinkAggregateMaximumBitrate,

id-LTEUESidelinkAggregateMaximumBitrate,

id-PC5LinkAMBR,

id-SLDRBs-FailedToBeModified-Item,

id-SLDRBs-FailedToBeModified-List,

id-SLDRBs-FailedToBeSetup-Item,

id-SLDRBs-FailedToBeSetup-List,

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id-SLDRBs-Required-ToBeModified-Item,

id-SLDRBs-Required-ToBeModified-List,

id-SLDRBs-Required-ToBeReleased-Item,

id-SLDRBs-Required-ToBeReleased-List,

id-SLDRBs-Setup-Item,

id-SLDRBs-Setup-List,

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id-SLDRBs-FailedToBeSetupMod-List,

id-SLDRBs-SetupMod-Item,

id-SLDRBs-FailedToBeSetupMod-Item,

id-SLDRBs-ModifiedConf-List,

id-SLDRBs-ModifiedConf-Item,

id-gNBCUMeasurementID,

id-gNBDUMeasurementID,

id-RegistrationRequest,

id-ReportCharacteristics,

id-CellToReportList,

id-CellMeasurementResultList,

id-HardwareLoadIndicator,

id-ReportingPeriodicity,

id-TNLCapacityIndicator,

id-RACHReportInformationList,

id-RLFReportInformationList,

id-ReportingRequestType,

id-TimeReferenceInformation,

id-ConditionalInterDUMobilityInformation,

id-ConditionalIntraDUMobilityInformation,

id-targetCellsToCancel,

id-requestedTargetCellGlobalID,

id-TraceCollectionEntityIPAddress,

id-ManagementBasedMDTPLMNList,

id-PrivacyIndicator,

id-TraceCollectionEntityURI,

id-ServingNID,

id-PosAssistance-Information,

id-PosBroadcast,

id-PositioningBroadcastCells,

id-RoutingID,

id-PosAssistanceInformationFailureList,

id-PosMeasurementQuantities,

id-PosMeasurementResultList,

id-PosMeasurementPeriodicity,

id-PosReportCharacteristics,

id-TRPInformationTypeListTRPReq,

id-TRPInformationTypeItem,

id-TRPInformationListTRPResp,

id-TRPInformationItem,

id-LMF-MeasurementID,

id-RAN-MeasurementID,

id-SRSType,

id-ActivationTime,

id-AbortTransmission,

id-SRSConfiguration,

id-TRPList,

id-E-CID-MeasurementQuantities,

id-E-CID-MeasurementPeriodicity,

id-E-CID-MeasurementResult,

id-Cell-Portion-ID,

id-LMF-UE-MeasurementID,

id-RAN-UE-MeasurementID,

id-SFNInitialisationTime,

id-SystemFrameNumber,

id-SlotNumber,

id-TRP-MeasurementRequestList,

id-MeasurementBeamInfoRequest,

id-E-CID-ReportCharacteristics,

id-F1CTransferPath,

id-SCGIndicator,

id-SRSSpatialRelationPerSRSResource,

id-PosMeasurementPeriodicityExtended,

id-SuccessfulHOReportInformationList,

id-Coverage-Modification-Notification,

id-CCO-Assistance-Information,

id-CellsForSON-List,

id-IABCongestionIndication,

id-IABConditionalRRCMessageDeliveryIndication,

id-F1CTransferPathNRDC,

id-BufferSizeThresh,

id-IAB-TNL-Addresses-Exception,

id-BAP-Header-Rewriting-Added-List,

id-BAP-Header-Rewriting-Added-List-Item,

id-Re-routingEnableIndicator,

id-NonF1terminatingTopologyIndicator,

id-EgressNonF1terminatingTopologyIndicator,

id-IngressNonF1terminatingTopologyIndicator,

id-Neighbour-Node-Cells-List,

id-Serving-Cells-List,

id-MDTPollutedMeasurementIndicator,

id-PDCMeasurementPeriodicity,

id-PDCMeasurementQuantities,

id-PDCMeasurementResult,

id-PDCReportType,

id-RAN-UE-PDC-MeasID,

id-SCGActivationRequest,

id-SCGActivationStatus,

id-TRP-MeasurementUpdateList,

id-PRSTRPList,

id-PRSTransmissionTRPList,

id-ResponseTime,

id-TRP-PRS-Info-List,

id-PRS-Measurement-Info-List,

id-PRSConfigRequestType,

id-MeasurementCharacteristicsRequestIndicator,

id-MeasurementTimeOccasion,

id-UEReportingInformation,

id-PosConextRevIndication,

id-NRRedCapUEIndication,

id-RANUEPagingDRX,

id-CNUEPagingDRX,

id-NRPagingeDRXInformation,

id-NRPagingeDRXInformationforRRCINACTIVE,

id-QoEInformation,

id-CG-SDTQueryIndication,

id-CG-SDTKeptIndicator,

id-CG-SDTSessionInfoOld,

id-SDTInformation,

id-FiveG-ProSeAuthorized,

id-FiveG-ProSePC5LinkAMBR,

id-FiveG-ProSeUEPC5AggregateMaximumBitrate,

id-UuRLCChannelToBeSetupList,

id-UuRLCChannelToBeModifiedList,

id-UuRLCChannelToBeReleasedList,

id-UuRLCChannelSetupList,

id-UuRLCChannelFailedToBeSetupList,

id-UuRLCChannelModifiedList,

id-UuRLCChannelFailedToBeModifiedList,

id-UuRLCChannelRequiredToBeModifiedList,

id-UuRLCChannelRequiredToBeReleasedList,

id-PC5RLCChannelToBeSetupList,

id-PC5RLCChannelToBeModifiedList,

id-PC5RLCChannelToBeReleasedList,

id-PC5RLCChannelSetupList,

id-PC5RLCChannelFailedToBeSetupList,

id-PC5RLCChannelModifiedList,

id-PC5RLCChannelFailedToBeModifiedList,

id-PC5RLCChannelRequiredToBeModifiedList,

id-PC5RLCChannelRequiredToBeReleasedList,

id-SidelinkRelayConfiguration,

id-UpdatedRemoteUELocalID,

id-PathSwitchConfiguration,

id-PagingCause,

id-PEIPSAssistanceInfo,

id-UEPagingCapability,

id-GNBDUUESliceMaximumBitRateList,

id-PosMeasurementAmount,

id-BAP-Header-Rewriting-Removed-List,

id-BAP-Header-Rewriting-Removed-List-Item,

id-SLDRXCycleList,

id-ManagementBasedMDTPLMNModificationList,

id-ActivationRequestType,

id-PosMeasGapPreConfigList,

maxCellingNBDU,

maxnoofCandidateSpCells,

maxnoofDRBs,

maxnoofErrors,

maxnoofIndividualF1ConnectionsToReset,

maxnoofPotentialSpCells,

maxnoofSCells,

maxnoofSRBs,

maxnoofPagingCells,

maxnoofTNLAssociations,

maxCellineNB,

maxnoofUEIDs,

maxnoofBHRLCChannels,

maxnoofRoutingEntries,

maxnoofChildIABNodes,

maxnoofServedCellsIAB,

maxnoofTLAsIAB,

maxnoofULUPTNLInformationforIAB,

maxnoofUPTNLAddresses,

maxnoofSLDRBs,

maxnoofTRPInfoTypes,

maxnoofTRPs,

maxnoofMRBs,

maxnoofUEIDforPaging,

maxnoofNeighbourNodeCellsIAB,

maxnoofMRBsforUE

FROM F1AP-Constants;

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

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

--

-- UE Context Modification ELEMENTARY PROCEDURE

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

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

--

-- UE CONTEXT MODIFICATION REQUEST

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

UEContextModificationRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { UEContextModificationRequestIEs} },

...

}

UEContextModificationRequestIEs F1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-UE-F1AP-ID CRITICALITY reject TYPE GNB-CU-UE-F1AP-ID PRESENCE mandatory }|

{ ID id-gNB-DU-UE-F1AP-ID CRITICALITY reject TYPE GNB-DU-UE-F1AP-ID PRESENCE mandatory }|

{ ID id-SpCell-ID CRITICALITY ignore TYPE NRCGI PRESENCE optional }|

{ ID id-ServCellIndex CRITICALITY reject TYPE ServCellIndex PRESENCE optional }|

{ ID id-SpCellULConfigured CRITICALITY ignore TYPE CellULConfigured PRESENCE optional }|

{ ID id-DRXCycle CRITICALITY ignore TYPE DRXCycle PRESENCE optional }|

{ ID id-CUtoDURRCInformation CRITICALITY reject TYPE CUtoDURRCInformation PRESENCE optional }|

{ ID id-TransmissionActionIndicator CRITICALITY ignore TYPE TransmissionActionIndicator PRESENCE optional }|

{ ID id-ResourceCoordinationTransferContainer CRITICALITY ignore TYPE ResourceCoordinationTransferContainer PRESENCE optional }|

{ ID id-RRCReconfigurationCompleteIndicator CRITICALITY ignore TYPE RRCReconfigurationCompleteIndicator PRESENCE optional }|

{ ID id-RRCContainer CRITICALITY reject TYPE RRCContainer PRESENCE optional }|

{ ID id-SCell-ToBeSetupMod-List CRITICALITY ignore TYPE SCell-ToBeSetupMod-List PRESENCE optional }|

{ ID id-SCell-ToBeRemoved-List CRITICALITY ignore TYPE SCell-ToBeRemoved-List PRESENCE optional }|

{ ID id-SRBs-ToBeSetupMod-List CRITICALITY reject TYPE SRBs-ToBeSetupMod-List PRESENCE optional }|

{ ID id-DRBs-ToBeSetupMod-List CRITICALITY reject TYPE DRBs-ToBeSetupMod-List PRESENCE optional }|

{ ID id-DRBs-ToBeModified-List CRITICALITY reject TYPE DRBs-ToBeModified-List PRESENCE optional }|

{ ID id-SRBs-ToBeReleased-List CRITICALITY reject TYPE SRBs-ToBeReleased-List PRESENCE optional }|

{ ID id-DRBs-ToBeReleased-List CRITICALITY reject TYPE DRBs-ToBeReleased-List PRESENCE optional }|

{ ID id-InactivityMonitoringRequest CRITICALITY reject TYPE InactivityMonitoringRequest PRESENCE optional }|

{ ID id-RAT-FrequencyPriorityInformation CRITICALITY reject TYPE RAT-FrequencyPriorityInformation PRESENCE optional }|

{ ID id-DRXConfigurationIndicator CRITICALITY ignore TYPE DRXConfigurationIndicator PRESENCE optional }|

{ ID id-RLCFailureIndication CRITICALITY ignore TYPE RLCFailureIndication PRESENCE optional }|

{ ID id-UplinkTxDirectCurrentListInformation CRITICALITY ignore TYPE UplinkTxDirectCurrentListInformation PRESENCE optional }|

{ ID id-GNB-DUConfigurationQuery CRITICALITY reject TYPE GNB-DUConfigurationQuery PRESENCE optional }|

{ ID id-GNB-DU-UE-AMBR-UL CRITICALITY ignore TYPE BitRate PRESENCE optional }|

{ ID id-ExecuteDuplication CRITICALITY ignore TYPE ExecuteDuplication PRESENCE optional}|

{ ID id-RRCDeliveryStatusRequest CRITICALITY ignore TYPE RRCDeliveryStatusRequest PRESENCE optional }|

{ ID id-ResourceCoordinationTransferInformation CRITICALITY ignore TYPE ResourceCoordinationTransferInformation PRESENCE optional }|

{ ID id-ServingCellMO CRITICALITY ignore TYPE ServingCellMO PRESENCE optional }|

{ ID id-NeedforGap CRITICALITY ignore TYPE NeedforGap PRESENCE optional }|

{ ID id-FullConfiguration CRITICALITY reject TYPE FullConfiguration PRESENCE optional }|

{ ID id-AdditionalRRMPriorityIndex CRITICALITY ignore TYPE AdditionalRRMPriorityIndex PRESENCE optional }|

{ ID id-LowerLayerPresenceStatusChange CRITICALITY ignore TYPE LowerLayerPresenceStatusChange PRESENCE optional }|

{ ID id-BHChannels-ToBeSetupMod-List CRITICALITY reject TYPE BHChannels-ToBeSetupMod-List PRESENCE optional }|

{ ID id-BHChannels-ToBeModified-List CRITICALITY reject TYPE BHChannels-ToBeModified-List PRESENCE optional }|

{ ID id-BHChannels-ToBeReleased-List CRITICALITY reject TYPE BHChannels-ToBeReleased-List PRESENCE optional }|

{ ID id-NRV2XServicesAuthorized CRITICALITY ignore TYPE NRV2XServicesAuthorized PRESENCE optional }|

{ ID id-LTEV2XServicesAuthorized CRITICALITY ignore TYPE LTEV2XServicesAuthorized PRESENCE optional }|

{ ID id-NRUESidelinkAggregateMaximumBitrate CRITICALITY ignore TYPE NRUESidelinkAggregateMaximumBitrate PRESENCE optional }|

{ ID id-LTEUESidelinkAggregateMaximumBitrate CRITICALITY ignore TYPE LTEUESidelinkAggregateMaximumBitrate PRESENCE optional }|

{ ID id-PC5LinkAMBR CRITICALITY ignore TYPE BitRate PRESENCE optional}|

{ ID id-SLDRBs-ToBeSetupMod-List CRITICALITY reject TYPE SLDRBs-ToBeSetupMod-List PRESENCE optional }|

{ ID id-SLDRBs-ToBeModified-List CRITICALITY reject TYPE SLDRBs-ToBeModified-List PRESENCE optional }|

{ ID id-SLDRBs-ToBeReleased-List CRITICALITY reject TYPE SLDRBs-ToBeReleased-List PRESENCE optional }|

{ ID id-ConditionalIntraDUMobilityInformation CRITICALITY reject TYPE ConditionalIntraDUMobilityInformation PRESENCE optional}|

{ ID id-F1CTransferPath CRITICALITY reject TYPE F1CTransferPath PRESENCE optional }|

{ ID id-SCGIndicator CRITICALITY ignore TYPE SCGIndicator PRESENCE optional }|

{ ID id-IABConditionalRRCMessageDeliveryIndication CRITICALITY reject TYPE IABConditionalRRCMessageDeliveryIndication PRESENCE optional }|

{ ID id-F1CTransferPathNRDC CRITICALITY reject TYPE F1CTransferPathNRDC PRESENCE optional }|

{ ID id-MDTPollutedMeasurementIndicator CRITICALITY ignore TYPE MDTPollutedMeasurementIndicator PRESENCE optional }|

{ ID id-SCGActivationRequest CRITICALITY ignore TYPE SCGActivationRequest PRESENCE optional }|

{ ID id-CG-SDTQueryIndication CRITICALITY ignore TYPE CG-SDTQueryIndication PRESENCE optional }|

{ ID id-FiveG-ProSeAuthorized CRITICALITY ignore TYPE FiveG-ProSeAuthorized PRESENCE optional }|

{ ID id-FiveG-ProSeUEPC5AggregateMaximumBitrate CRITICALITY ignore TYPE NRUESidelinkAggregateMaximumBitrate PRESENCE optional }|

{ ID id-FiveG-ProSePC5LinkAMBR CRITICALITY ignore TYPE BitRate PRESENCE optional}|

{ ID id-UpdatedRemoteUELocalID CRITICALITY ignore TYPE RemoteUELocalID PRESENCE optional }|

{ ID id-UuRLCChannelToBeSetupList CRITICALITY reject TYPE UuRLCChannelToBeSetupList PRESENCE optional}|

{ ID id-UuRLCChannelToBeModifiedList CRITICALITY reject TYPE UuRLCChannelToBeModifiedList PRESENCE optional}|

{ ID id-UuRLCChannelToBeReleasedList CRITICALITY reject TYPE UuRLCChannelToBeReleasedList PRESENCE optional}|

{ ID id-PC5RLCChannelToBeSetupList CRITICALITY reject TYPE PC5RLCChannelToBeSetupList PRESENCE optional}|

{ ID id-PC5RLCChannelToBeModifiedList CRITICALITY reject TYPE PC5RLCChannelToBeModifiedList PRESENCE optional}|

{ ID id-PC5RLCChannelToBeReleasedList CRITICALITY reject TYPE PC5RLCChannelToBeReleasedList PRESENCE optional}|

{ ID id-PathSwitchConfiguration CRITICALITY ignore TYPE PathSwitchConfiguration PRESENCE optional }|

{ ID id-GNBDUUESliceMaximumBitRateList CRITICALITY ignore TYPE GNBDUUESliceMaximumBitRateList PRESENCE optional }|

{ ID id-MulticastMBSSessionSetupList CRITICALITY reject TYPE MulticastMBSSessionList PRESENCE optional }|

{ ID id-MulticastMBSSessionRemoveList CRITICALITY reject TYPE MulticastMBSSessionList PRESENCE optional }|

{ ID id-UE-MulticastMRBs-ToBeSetup-List CRITICALITY reject TYPE UE-MulticastMRBs-ToBeSetup-List PRESENCE optional }|

{ ID id-UE-MulticastMRBs-ToBeReleased-List CRITICALITY reject TYPE UE-MulticastMRBs-ToBeReleased-List PRESENCE optional }|

{ ID id-SLDRXCycleList CRITICALITY ignore TYPE SLDRXCycleList PRESENCE optional }|

{ ID id-ManagementBasedMDTPLMNModificationList CRITICALITY ignore TYPE MDTPLMNModificationList PRESENCE optional },

...

}

SCell-ToBeSetupMod-List::= SEQUENCE (SIZE(1..maxnoofSCells)) OF ProtocolIE-SingleContainer { { SCell-ToBeSetupMod-ItemIEs} }

SCell-ToBeRemoved-List::= SEQUENCE (SIZE(1..maxnoofSCells)) OF ProtocolIE-SingleContainer { { SCell-ToBeRemoved-ItemIEs} }

SRBs-ToBeSetupMod-List ::= SEQUENCE (SIZE(1..maxnoofSRBs)) OF ProtocolIE-SingleContainer { { SRBs-ToBeSetupMod-ItemIEs} }

DRBs-ToBeSetupMod-List ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF ProtocolIE-SingleContainer { { DRBs-ToBeSetupMod-ItemIEs} }

BHChannels-ToBeSetupMod-List ::= SEQUENCE (SIZE(1..maxnoofBHRLCChannels)) OF ProtocolIE-SingleContainer { { BHChannels-ToBeSetupMod-ItemIEs} }

DRBs-ToBeModified-List ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF ProtocolIE-SingleContainer { { DRBs-ToBeModified-ItemIEs} }

BHChannels-ToBeModified-List ::= SEQUENCE (SIZE(1..maxnoofBHRLCChannels)) OF ProtocolIE-SingleContainer { { BHChannels-ToBeModified-ItemIEs} }

SRBs-ToBeReleased-List ::= SEQUENCE (SIZE(1..maxnoofSRBs)) OF ProtocolIE-SingleContainer { { SRBs-ToBeReleased-ItemIEs} }

DRBs-ToBeReleased-List ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF ProtocolIE-SingleContainer { { DRBs-ToBeReleased-ItemIEs} }

BHChannels-ToBeReleased-List ::= SEQUENCE (SIZE(1..maxnoofBHRLCChannels)) OF ProtocolIE-SingleContainer { { BHChannels-ToBeReleased-ItemIEs} }

UE-MulticastMRBs-ToBeReleased-List ::= SEQUENCE (SIZE(1..maxnoofMRBsforUE)) OF ProtocolIE-SingleContainer { { UE-MulticastMRBs-ToBeReleased-ItemIEs} }

SCell-ToBeSetupMod-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-SCell-ToBeSetupMod-Item CRITICALITY ignore TYPE SCell-ToBeSetupMod-Item PRESENCE mandatory },

...

}

SCell-ToBeRemoved-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-SCell-ToBeRemoved-Item CRITICALITY ignore TYPE SCell-ToBeRemoved-Item PRESENCE mandatory },

...

}

SRBs-ToBeSetupMod-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-SRBs-ToBeSetupMod-Item CRITICALITY reject TYPE SRBs-ToBeSetupMod-Item PRESENCE mandatory},

...

}

DRBs-ToBeSetupMod-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-DRBs-ToBeSetupMod-Item CRITICALITY reject TYPE DRBs-ToBeSetupMod-Item PRESENCE mandatory},

...

}

DRBs-ToBeModified-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-DRBs-ToBeModified-Item CRITICALITY reject TYPE DRBs-ToBeModified-Item PRESENCE mandatory},

...

}

SRBs-ToBeReleased-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-SRBs-ToBeReleased-Item CRITICALITY reject TYPE SRBs-ToBeReleased-Item PRESENCE mandatory},

...

}

DRBs-ToBeReleased-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-DRBs-ToBeReleased-Item CRITICALITY reject TYPE DRBs-ToBeReleased-Item PRESENCE mandatory},

...

}

BHChannels-ToBeSetupMod-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-BHChannels-ToBeSetupMod-Item CRITICALITY reject TYPE BHChannels-ToBeSetupMod-Item PRESENCE mandatory},

...

}

BHChannels-ToBeModified-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-BHChannels-ToBeModified-Item CRITICALITY reject TYPE BHChannels-ToBeModified-Item PRESENCE mandatory},

...

}

BHChannels-ToBeReleased-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-BHChannels-ToBeReleased-Item CRITICALITY reject TYPE BHChannels-ToBeReleased-Item PRESENCE mandatory},

...

}

SLDRBs-ToBeSetupMod-List ::= SEQUENCE (SIZE(1..maxnoofSLDRBs)) OF ProtocolIE-SingleContainer { { SLDRBs-ToBeSetupMod-ItemIEs} }

SLDRBs-ToBeModified-List ::= SEQUENCE (SIZE(1..maxnoofSLDRBs)) OF ProtocolIE-SingleContainer { { SLDRBs-ToBeModified-ItemIEs} }

SLDRBs-ToBeReleased-List ::= SEQUENCE (SIZE(1..maxnoofSLDRBs)) OF ProtocolIE-SingleContainer { { SLDRBs-ToBeReleased-ItemIEs} }

SLDRBs-ToBeSetupMod-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-SLDRBs-ToBeSetupMod-Item CRITICALITY reject TYPE SLDRBs-ToBeSetupMod-Item PRESENCE mandatory},

...

}

SLDRBs-ToBeModified-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-SLDRBs-ToBeModified-Item CRITICALITY reject TYPE SLDRBs-ToBeModified-Item PRESENCE mandatory},

...

}

SLDRBs-ToBeReleased-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-SLDRBs-ToBeReleased-Item CRITICALITY reject TYPE SLDRBs-ToBeReleased-Item PRESENCE mandatory},

...

}

UE-MulticastMRBs-ToBeReleased-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-UE-MulticastMRBs-ToBeReleased-Item CRITICALITY reject TYPE UE-MulticastMRBs-ToBeReleased-Item PRESENCE mandatory},

...

}

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

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-- UE CONTEXT MODIFICATION RESPONSE

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

UEContextModificationResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { UEContextModificationResponseIEs} },

...

}

UEContextModificationResponseIEs F1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-UE-F1AP-ID CRITICALITY reject TYPE GNB-CU-UE-F1AP-ID PRESENCE mandatory }|

{ ID id-gNB-DU-UE-F1AP-ID CRITICALITY reject TYPE GNB-DU-UE-F1AP-ID PRESENCE mandatory }|

{ ID id-ResourceCoordinationTransferContainer CRITICALITY ignore TYPE ResourceCoordinationTransferContainer PRESENCE optional }|

{ ID id-DUtoCURRCInformation CRITICALITY reject TYPE DUtoCURRCInformation PRESENCE optional}|

{ ID id-DRBs-SetupMod-List CRITICALITY ignore TYPE DRBs-SetupMod-List PRESENCE optional}|

{ ID id-DRBs-Modified-List CRITICALITY ignore TYPE DRBs-Modified-List PRESENCE optional}|

{ ID id-SRBs-FailedToBeSetupMod-List CRITICALITY ignore TYPE SRBs-FailedToBeSetupMod-List PRESENCE optional }|

{ ID id-DRBs-FailedToBeSetupMod-List CRITICALITY ignore TYPE DRBs-FailedToBeSetupMod-List PRESENCE optional }|

{ ID id-SCell-FailedtoSetupMod-List CRITICALITY ignore TYPE SCell-FailedtoSetupMod-List PRESENCE optional }|

{ ID id-DRBs-FailedToBeModified-List CRITICALITY ignore TYPE DRBs-FailedToBeModified-List PRESENCE optional }|

{ ID id-InactivityMonitoringResponse CRITICALITY reject TYPE InactivityMonitoringResponse PRESENCE optional }|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional }|

{ ID id-C-RNTI CRITICALITY ignore TYPE C-RNTI PRESENCE optional }|

{ ID id-Associated-SCell-List CRITICALITY ignore TYPE Associated-SCell-List PRESENCE optional }|

{ ID id-SRBs-SetupMod-List CRITICALITY ignore TYPE SRBs-SetupMod-List PRESENCE optional }|

{ ID id-SRBs-Modified-List CRITICALITY ignore TYPE SRBs-Modified-List PRESENCE optional }|

{ ID id-FullConfiguration CRITICALITY reject TYPE FullConfiguration PRESENCE optional }|

{ ID id-BHChannels-SetupMod-List CRITICALITY ignore TYPE BHChannels-SetupMod-List PRESENCE optional}|

{ ID id-BHChannels-Modified-List CRITICALITY ignore TYPE BHChannels-Modified-List PRESENCE optional}|

{ ID id-BHChannels-FailedToBeSetupMod-List CRITICALITY ignore TYPE BHChannels-FailedToBeSetupMod-List PRESENCE optional }|

{ ID id-BHChannels-FailedToBeModified-List CRITICALITY ignore TYPE BHChannels-FailedToBeModified-List PRESENCE optional }|

{ ID id-SLDRBs-SetupMod-List CRITICALITY ignore TYPE SLDRBs-SetupMod-List PRESENCE optional }|

{ ID id-SLDRBs-Modified-List CRITICALITY ignore TYPE SLDRBs-Modified-List PRESENCE optional }|

{ ID id-SLDRBs-FailedToBeSetupMod-List CRITICALITY ignore TYPE SLDRBs-FailedToBeSetupMod-List PRESENCE optional }|

{ ID id-SLDRBs-FailedToBeModified-List CRITICALITY ignore TYPE SLDRBs-FailedToBeModified-List PRESENCE optional }|

{ ID id-requestedTargetCellGlobalID CRITICALITY reject TYPE NRCGI PRESENCE optional}|

{ ID id-SCGActivationStatus CRITICALITY ignore TYPE SCGActivationStatus PRESENCE optional }|

{ ID id-UuRLCChannelSetupList CRITICALITY ignore TYPE UuRLCChannelSetupList PRESENCE optional}|

{ ID id-UuRLCChannelFailedToBeSetupList CRITICALITY ignore TYPE UuRLCChannelFailedToBeSetupList PRESENCE optional}|

{ ID id-UuRLCChannelModifiedList CRITICALITY ignore TYPE UuRLCChannelModifiedList PRESENCE optional}|

{ ID id-UuRLCChannelFailedToBeModifiedList CRITICALITY ignore TYPE UuRLCChannelFailedToBeModifiedList PRESENCE optional}|

{ ID id-PC5RLCChannelSetupList CRITICALITY ignore TYPE PC5RLCChannelSetupList PRESENCE optional}|

{ ID id-PC5RLCChannelFailedToBeSetupList CRITICALITY ignore TYPE PC5RLCChannelFailedToBeSetupList PRESENCE optional}|

{ ID id-PC5RLCChannelModifiedList CRITICALITY ignore TYPE PC5RLCChannelModifiedList PRESENCE optional}|

{ ID id-PC5RLCChannelFailedToBeModifiedList CRITICALITY ignore TYPE PC5RLCChannelFailedToBeModifiedList PRESENCE optional},

...

}

DRBs-SetupMod-List ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF ProtocolIE-SingleContainer { { DRBs-SetupMod-ItemIEs} }

DRBs-Modified-List::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF ProtocolIE-SingleContainer { { DRBs-Modified-ItemIEs } }

SRBs-SetupMod-List ::= SEQUENCE (SIZE(1..maxnoofSRBs)) OF ProtocolIE-SingleContainer { { SRBs-SetupMod-ItemIEs} }

SRBs-Modified-List ::= SEQUENCE (SIZE(1..maxnoofSRBs)) OF ProtocolIE-SingleContainer { { SRBs-Modified-ItemIEs } }

DRBs-FailedToBeModified-List ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF ProtocolIE-SingleContainer { { DRBs-FailedToBeModified-ItemIEs} }

SRBs-FailedToBeSetupMod-List ::= SEQUENCE (SIZE(1..maxnoofSRBs)) OF ProtocolIE-SingleContainer { { SRBs-FailedToBeSetupMod-ItemIEs} }

DRBs-FailedToBeSetupMod-List ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF ProtocolIE-SingleContainer { { DRBs-FailedToBeSetupMod-ItemIEs} }

SCell-FailedtoSetupMod-List ::= SEQUENCE (SIZE(1..maxnoofSCells)) OF ProtocolIE-SingleContainer { { SCell-FailedtoSetupMod-ItemIEs} }

BHChannels-SetupMod-List ::= SEQUENCE (SIZE(1..maxnoofBHRLCChannels)) OF ProtocolIE-SingleContainer { { BHChannels-SetupMod-ItemIEs} }

BHChannels-Modified-List ::= SEQUENCE (SIZE(1..maxnoofBHRLCChannels)) OF ProtocolIE-SingleContainer { { BHChannels-Modified-ItemIEs } }

BHChannels-FailedToBeModified-List ::= SEQUENCE (SIZE(1..maxnoofBHRLCChannels)) OF ProtocolIE-SingleContainer { { BHChannels-FailedToBeModified-ItemIEs} }

BHChannels-FailedToBeSetupMod-List ::= SEQUENCE (SIZE(1..maxnoofBHRLCChannels)) OF ProtocolIE-SingleContainer { { BHChannels-FailedToBeSetupMod-ItemIEs} }

Associated-SCell-List ::= SEQUENCE (SIZE(1.. maxnoofSCells)) OF ProtocolIE-SingleContainer { { Associated-SCell-ItemIEs} }

DRBs-SetupMod-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-DRBs-SetupMod-Item CRITICALITY ignore TYPE DRBs-SetupMod-Item PRESENCE mandatory},

...

}

DRBs-Modified-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-DRBs-Modified-Item CRITICALITY ignore TYPE DRBs-Modified-Item PRESENCE mandatory},

...

}

SRBs-SetupMod-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-SRBs-SetupMod-Item CRITICALITY ignore TYPE SRBs-SetupMod-Item PRESENCE mandatory},

...

}

SRBs-Modified-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-SRBs-Modified-Item CRITICALITY ignore TYPE SRBs-Modified-Item PRESENCE mandatory},

...

}

SRBs-FailedToBeSetupMod-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-SRBs-FailedToBeSetupMod-Item CRITICALITY ignore TYPE SRBs-FailedToBeSetupMod-Item PRESENCE mandatory},

...

}

DRBs-FailedToBeSetupMod-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-DRBs-FailedToBeSetupMod-Item CRITICALITY ignore TYPE DRBs-FailedToBeSetupMod-Item PRESENCE mandatory},

...

}

DRBs-FailedToBeModified-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-DRBs-FailedToBeModified-Item CRITICALITY ignore TYPE DRBs-FailedToBeModified-Item PRESENCE mandatory},

...

}

SCell-FailedtoSetupMod-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-SCell-FailedtoSetupMod-Item CRITICALITY ignore TYPE SCell-FailedtoSetupMod-Item PRESENCE mandatory},

...

}

Associated-SCell-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-Associated-SCell-Item CRITICALITY ignore TYPE Associated-SCell-Item PRESENCE mandatory},

...

}

BHChannels-SetupMod-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-BHChannels-SetupMod-Item CRITICALITY ignore TYPE BHChannels-SetupMod-Item PRESENCE mandatory},

...

}

BHChannels-Modified-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-BHChannels-Modified-Item CRITICALITY ignore TYPE BHChannels-Modified-Item PRESENCE mandatory},

...

}

BHChannels-FailedToBeSetupMod-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-BHChannels-FailedToBeSetupMod-Item CRITICALITY ignore TYPE BHChannels-FailedToBeSetupMod-Item PRESENCE mandatory},

...

}

BHChannels-FailedToBeModified-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-BHChannels-FailedToBeModified-Item CRITICALITY ignore TYPE BHChannels-FailedToBeModified-Item PRESENCE mandatory},

...

}

SLDRBs-SetupMod-List ::= SEQUENCE (SIZE(1..maxnoofSLDRBs)) OF ProtocolIE-SingleContainer { { SLDRBs-SetupMod-ItemIEs} }

SLDRBs-Modified-List ::= SEQUENCE (SIZE(1..maxnoofSLDRBs)) OF ProtocolIE-SingleContainer { { SLDRBs-Modified-ItemIEs } }

SLDRBs-FailedToBeModified-List ::= SEQUENCE (SIZE(1..maxnoofSLDRBs)) OF ProtocolIE-SingleContainer { { SLDRBs-FailedToBeModified-ItemIEs} }

SLDRBs-FailedToBeSetupMod-List ::= SEQUENCE (SIZE(1..maxnoofSLDRBs)) OF ProtocolIE-SingleContainer { { SLDRBs-FailedToBeSetupMod-ItemIEs} }

SLDRBs-SetupMod-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-SLDRBs-SetupMod-Item CRITICALITY ignore TYPE SLDRBs-SetupMod-Item PRESENCE mandatory},

...

}

SLDRBs-Modified-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-SLDRBs-Modified-Item CRITICALITY ignore TYPE SLDRBs-Modified-Item PRESENCE mandatory},

...

}

SLDRBs-FailedToBeSetupMod-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-SLDRBs-FailedToBeSetupMod-Item CRITICALITY ignore TYPE SLDRBs-FailedToBeSetupMod-Item PRESENCE mandatory},

...

}

SLDRBs-FailedToBeModified-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-SLDRBs-FailedToBeModified-Item CRITICALITY ignore TYPE SLDRBs-FailedToBeModified-Item PRESENCE mandatory},

...

}

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

--

-- UE CONTEXT MODIFICATION FAILURE

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

UEContextModificationFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { UEContextModificationFailureIEs} },

...

}

UEContextModificationFailureIEs F1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-UE-F1AP-ID CRITICALITY reject TYPE GNB-CU-UE-F1AP-ID PRESENCE mandatory }|

{ ID id-gNB-DU-UE-F1AP-ID CRITICALITY reject TYPE GNB-DU-UE-F1AP-ID PRESENCE mandatory }|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory }|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional }|

{ ID id-requestedTargetCellGlobalID CRITICALITY reject TYPE NRCGI PRESENCE optional},

...

}

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

--

-- UE Context Modification Required (gNB-DU initiated) ELEMENTARY PROCEDURE

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

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

--

-- UE CONTEXT MODIFICATION REQUIRED

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

UEContextModificationRequired ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { UEContextModificationRequiredIEs} },

...

}

UEContextModificationRequiredIEs F1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-UE-F1AP-ID CRITICALITY reject TYPE GNB-CU-UE-F1AP-ID PRESENCE mandatory }|

{ ID id-gNB-DU-UE-F1AP-ID CRITICALITY reject TYPE GNB-DU-UE-F1AP-ID PRESENCE mandatory }|

{ ID id-ResourceCoordinationTransferContainer CRITICALITY ignore TYPE ResourceCoordinationTransferContainer PRESENCE optional }|

{ ID id-DUtoCURRCInformation CRITICALITY reject TYPE DUtoCURRCInformation PRESENCE optional}|

{ ID id-DRBs-Required-ToBeModified-List CRITICALITY reject TYPE DRBs-Required-ToBeModified-List PRESENCE optional}|

{ ID id-SRBs-Required-ToBeReleased-List CRITICALITY reject TYPE SRBs-Required-ToBeReleased-List PRESENCE optional}|

{ ID id-DRBs-Required-ToBeReleased-List CRITICALITY reject TYPE DRBs-Required-ToBeReleased-List PRESENCE optional}|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory }|

{ ID id-BHChannels-Required-ToBeReleased-List CRITICALITY reject TYPE BHChannels-Required-ToBeReleased-List PRESENCE optional}|

{ ID id-SLDRBs-Required-ToBeModified-List CRITICALITY reject TYPE SLDRBs-Required-ToBeModified-List PRESENCE optional}|

{ ID id-SLDRBs-Required-ToBeReleased-List CRITICALITY reject TYPE SLDRBs-Required-ToBeReleased-List PRESENCE optional}|

{ ID id-targetCellsToCancel CRITICALITY reject TYPE TargetCellList PRESENCE optional}|

{ ID id-UuRLCChannelRequiredToBeModifiedList CRITICALITY reject TYPE UuRLCChannelRequiredToBeModifiedList PRESENCE optional}|

{ ID id-UuRLCChannelRequiredToBeReleasedList CRITICALITY reject TYPE UuRLCChannelRequiredToBeReleasedList PRESENCE optional}|

{ ID id-PC5RLCChannelRequiredToBeModifiedList CRITICALITY reject TYPE PC5RLCChannelRequiredToBeModifiedList PRESENCE optional}|

{ ID id-PC5RLCChannelRequiredToBeReleasedList CRITICALITY reject TYPE PC5RLCChannelRequiredToBeReleasedList PRESENCE optional}|

{ ID id-UE-MulticastMRBs-RequiredToBeModified-List CRITICALITY reject TYPE UE-MulticastMRBs-RequiredToBeModified-List PRESENCE optional }|

{ ID id-UE-MulticastMRBs-RequiredToBeReleased-List CRITICALITY reject TYPE UE-MulticastMRBs-RequiredToBeReleased-List PRESENCE optional },

...

}

DRBs-Required-ToBeModified-List::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF ProtocolIE-SingleContainer { { DRBs-Required-ToBeModified-ItemIEs } }

DRBs-Required-ToBeReleased-List::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF ProtocolIE-SingleContainer { { DRBs-Required-ToBeReleased-ItemIEs } }

SRBs-Required-ToBeReleased-List::= SEQUENCE (SIZE(1..maxnoofSRBs)) OF ProtocolIE-SingleContainer { { SRBs-Required-ToBeReleased-ItemIEs } }

BHChannels-Required-ToBeReleased-List ::= SEQUENCE (SIZE(1..maxnoofBHRLCChannels)) OF ProtocolIE-SingleContainer { { BHChannels-Required-ToBeReleased-ItemIEs } }

DRBs-Required-ToBeModified-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-DRBs-Required-ToBeModified-Item CRITICALITY reject TYPE DRBs-Required-ToBeModified-Item PRESENCE mandatory},

...

}

DRBs-Required-ToBeReleased-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-DRBs-Required-ToBeReleased-Item CRITICALITY reject TYPE DRBs-Required-ToBeReleased-Item PRESENCE mandatory},

...

}

SRBs-Required-ToBeReleased-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-SRBs-Required-ToBeReleased-Item CRITICALITY reject TYPE SRBs-Required-ToBeReleased-Item PRESENCE mandatory},

...

}

BHChannels-Required-ToBeReleased-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-BHChannels-Required-ToBeReleased-Item CRITICALITY reject TYPE BHChannels-Required-ToBeReleased-Item PRESENCE mandatory},

...

}

SLDRBs-Required-ToBeModified-List::= SEQUENCE (SIZE(1..maxnoofSLDRBs)) OF ProtocolIE-SingleContainer { { SLDRBs-Required-ToBeModified-ItemIEs } }

SLDRBs-Required-ToBeReleased-List::= SEQUENCE (SIZE(1..maxnoofSLDRBs)) OF ProtocolIE-SingleContainer { { SLDRBs-Required-ToBeReleased-ItemIEs } }

SLDRBs-Required-ToBeModified-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-SLDRBs-Required-ToBeModified-Item CRITICALITY reject TYPE SLDRBs-Required-ToBeModified-Item PRESENCE mandatory},

...

}

SLDRBs-Required-ToBeReleased-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-SLDRBs-Required-ToBeReleased-Item CRITICALITY reject TYPE SLDRBs-Required-ToBeReleased-Item PRESENCE mandatory},

...

}

UE-MulticastMRBs-RequiredToBeModified-List ::= SEQUENCE (SIZE(1..maxnoofMRBsforUE)) OF

ProtocolIE-SingleContainer { { UE-MulticastMRBs-RequiredToBeModified-ItemIEs} }

UE-MulticastMRBs-RequiredToBeModified-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-UE-MulticastMRBs-RequiredToBeModified-Item CRITICALITY reject TYPE UE-MulticastMRBs-RequiredToBeModified-Item PRESENCE mandatory},

...

}

UE-MulticastMRBs-RequiredToBeReleased-List ::= SEQUENCE (SIZE(1..maxnoofMRBsforUE)) OF

ProtocolIE-SingleContainer { { UE-MulticastMRBs-RequiredToBeReleased-ItemIEs} }

UE-MulticastMRBs-RequiredToBeReleased-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-UE-MulticastMRBs-RequiredToBeReleased-Item CRITICALITY reject TYPE UE-MulticastMRBs-RequiredToBeReleased-Item PRESENCE mandatory},

...

}

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

--

-- UE CONTEXT MODIFICATION CONFIRM

--

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

UEContextModificationConfirm::= SEQUENCE {

protocolIEs ProtocolIE-Container { { UEContextModificationConfirmIEs} },

...

}

UEContextModificationConfirmIEs F1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-UE-F1AP-ID CRITICALITY reject TYPE GNB-CU-UE-F1AP-ID PRESENCE mandatory }|

{ ID id-gNB-DU-UE-F1AP-ID CRITICALITY reject TYPE GNB-DU-UE-F1AP-ID PRESENCE mandatory }|

{ ID id-ResourceCoordinationTransferContainer CRITICALITY ignore TYPE ResourceCoordinationTransferContainer PRESENCE optional }|

{ ID id-DRBs-ModifiedConf-List CRITICALITY ignore TYPE DRBs-ModifiedConf-List PRESENCE optional}|

{ ID id-RRCContainer CRITICALITY ignore TYPE RRCContainer PRESENCE optional }|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional }|

{ ID id-ExecuteDuplication CRITICALITY ignore TYPE ExecuteDuplication PRESENCE optional}|

{ ID id-ResourceCoordinationTransferInformation CRITICALITY ignore TYPE ResourceCoordinationTransferInformation PRESENCE optional }|

{ ID id-SLDRBs-ModifiedConf-List CRITICALITY ignore TYPE SLDRBs-ModifiedConf-List PRESENCE optional}|

{ ID id-UuRLCChannelModifiedList CRITICALITY reject TYPE UuRLCChannelModifiedList PRESENCE optional}|

{ ID id-PC5RLCChannelModifiedList CRITICALITY reject TYPE PC5RLCChannelModifiedList PRESENCE optional}|

{ ID id-UE-MulticastMRBs-ConfirmedToBeModified-List CRITICALITY reject TYPE UE-MulticastMRBs-ConfirmedToBeModified-List PRESENCE optional },

...

}

DRBs-ModifiedConf-List::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF ProtocolIE-SingleContainer { { DRBs-ModifiedConf-ItemIEs } }

DRBs-ModifiedConf-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-DRBs-ModifiedConf-Item CRITICALITY ignore TYPE DRBs-ModifiedConf-Item PRESENCE mandatory},

...

}

SLDRBs-ModifiedConf-List::= SEQUENCE (SIZE(1..maxnoofSLDRBs)) OF ProtocolIE-SingleContainer { { SLDRBs-ModifiedConf-ItemIEs } }

SLDRBs-ModifiedConf-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-SLDRBs-ModifiedConf-Item CRITICALITY ignore TYPE SLDRBs-ModifiedConf-Item PRESENCE mandatory},

...

}

UE-MulticastMRBs-ConfirmedToBeModified-List ::= SEQUENCE (SIZE(1..maxnoofMRBsforUE)) OF

ProtocolIE-SingleContainer { { UE-MulticastMRBs-ConfirmedToBeModified-ItemIEs} }

UE-MulticastMRBs-ConfirmedToBeModified-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-UE-MulticastMRBs-ConfirmedToBeModified-Item CRITICALITY reject TYPE UE-MulticastMRBs-ConfirmedToBeModified-Item PRESENCE mandatory},

...

}

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

### 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

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

MRB-ProgressInformation ::= CHOICE {

pdcp-SN12 INTEGER (0..4095),

pdcp-SN18 INTEGER (0..262143),

choice-extension ProtocolIE-SingleContainer { { MRB-ProgressInformation-ExtIEs} }

}

MRB-ProgressInformation-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

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

MulticastF1UContextReferenceF1 ::= OCTET STRING (SIZE(4))

MBSMulticastF1UContextDescriptor ::= SEQEUNCE {

multicastF1UContextReferenceF1 MulticastF1UContextReferenceF1,

mc-F1UCtxtusage ENUMERATED {ptp, ptp, ptp-retransmission, ptp-forwarding, ...},

mbsAreaSession MBS-Area-Session-ID OPTIONAL,

iE-Extensions ProtocolExtensionContainer {{MBSMulticastF1UContextDescriptor-ExtIEs}} OPTIONAL,

...

}

MBSMulticastF1UContextDescriptor-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

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

MulticastF1UContext-ToBeSetup-Item ::= SEQUENCE {

mRB-ID MRB-ID,

mbs-f1u-info-at-DU UPTransportLayerInformation,

mbsProgressInformation MRB-ProgressInformation OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {MulticastF1UContext-ToBeSetup-Item-ExtIEs} } OPTIONAL,

...

}

MulticastF1UContext-ToBeSetup-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

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

UEIdentity-List-For-Paging-Item ::= SEQUENCE {

uEIdentityIndexValue UEIdentityIndexValue,

pagingDRX PagingDRX OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { UEIdentity-List-For-Paging-Item-ExtIEs} } OPTIONAL

}

UEIdentity-List-For-Paging-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UE-MulticastMRBs-ConfirmedToBeModified-Item::= SEQUENCE {

mRB-ID MRB-ID,

mrb-type-reconfiguration MBSPTPRetransmissionTunnelRequired OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { UE-MulticastMRBs-ConfirmedToBeModified-Item-ExtIEs } } OPTIONAL

}

UE-MulticastMRBs-ConfirmedToBeModified-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UE-MulticastMRBs-RequiredToBeModified-Item::= SEQUENCE {

mRB-ID MRB-ID,

mrb-type-reconfiguration ENUMERATED {true, ...} OPTIONAL,

mrb-reconfigured-RLCtype ENUMERATED {

rlc-um-ptp,

rlc-am-ptp,

rlc-um-dl-ptm,

two-rlc-um-dl-ptp-and-dl-ptm,

three-rlc-um-dl-ptp-ul-ptp-dl-ptm,

two-rlc-am-ptp-um-dl-ptm,

...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { UE-MulticastMRBs-RequiredToBeModified-Item-ExtIEs } } OPTIONAL

}

UE-MulticastMRBs-RequiredToBeModified-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UE-MulticastMRBs-RequiredToBeReleased-Item::= SEQUENCE {

mRB-ID MRB-ID,

iE-Extensions ProtocolExtensionContainer { { UE-MulticastMRBs-RequiredToBeReleased-Item-ExtIEs } } OPTIONAL

}

UE-MulticastMRBs-RequiredToBeReleased-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UE-MulticastMRBs-ToBeReleased-Item ::= SEQUENCE {

mRB-ID MRB-ID,

iE-Extensions ProtocolExtensionContainer { { UE-MulticastMRBs-ToBeReleased-Item-ExtIEs } } OPTIONAL

}

UE-MulticastMRBs-ToBeReleased-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UE-MulticastMRBs-ToBeSetup-Item ::= SEQUENCE {

mRB-ID MRB-ID,

mbsPTPRetransmissionTunnelRequired MBSPTPRetransmissionTunnelRequired OPTIONAL,

mbsPTPForwardingRequiredInformation MRB-ProgressInformation OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { UE-MulticastMRBs-ToBeSetup-Item-ExtIEs } } OPTIONAL

}

UE-MulticastMRBs-ToBeSetup-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

<<<<<<<<<<<<<<<<<<<< Next change >>>>>>>>>>>>>>>>>>>>

### 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

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

--

-- IE parameter types from other modules.

--

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

IMPORTS

ProcedureCode,

ProtocolIE-ID

FROM F1AP-CommonDataTypes;

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

--

-- Elementary Procedures

--

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

id-Reset ProcedureCode ::= 0

id-F1Setup ProcedureCode ::= 1

id-ErrorIndication ProcedureCode ::= 2

id-gNBDUConfigurationUpdate ProcedureCode ::= 3

id-gNBCUConfigurationUpdate ProcedureCode ::= 4

id-UEContextSetup ProcedureCode ::= 5

id-UEContextRelease ProcedureCode ::= 6

id-UEContextModification ProcedureCode ::= 7

id-UEContextModificationRequired ProcedureCode ::= 8

id-UEMobilityCommand ProcedureCode ::= 9

id-UEContextReleaseRequest ProcedureCode ::= 10

id-InitialULRRCMessageTransfer ProcedureCode ::= 11

id-DLRRCMessageTransfer ProcedureCode ::= 12

id-ULRRCMessageTransfer ProcedureCode ::= 13

id-privateMessage ProcedureCode ::= 14

id-UEInactivityNotification ProcedureCode ::= 15

id-GNBDUResourceCoordination ProcedureCode ::= 16

id-SystemInformationDeliveryCommand ProcedureCode ::= 17

id-Paging ProcedureCode ::= 18

id-Notify ProcedureCode ::= 19

id-WriteReplaceWarning ProcedureCode ::= 20

id-PWSCancel ProcedureCode ::= 21

id-PWSRestartIndication ProcedureCode ::= 22

id-PWSFailureIndication ProcedureCode ::= 23

id-GNBDUStatusIndication ProcedureCode ::= 24

id-RRCDeliveryReport ProcedureCode ::= 25

id-F1Removal ProcedureCode ::= 26

id-NetworkAccessRateReduction ProcedureCode ::= 27

id-TraceStart ProcedureCode ::= 28

id-DeactivateTrace ProcedureCode ::= 29

id-DUCURadioInformationTransfer ProcedureCode ::= 30

id-CUDURadioInformationTransfer ProcedureCode ::= 31

id-BAPMappingConfiguration ProcedureCode ::= 32

id-GNBDUResourceConfiguration ProcedureCode ::= 33

id-IABTNLAddressAllocation ProcedureCode ::= 34

id-IABUPConfigurationUpdate ProcedureCode ::= 35

id-resourceStatusReportingInitiation ProcedureCode ::= 36

id-resourceStatusReporting ProcedureCode ::= 37

id-accessAndMobilityIndication ProcedureCode ::= 38

id-accessSuccess ProcedureCode ::= 39

id-cellTrafficTrace ProcedureCode ::= 40

id-PositioningMeasurementExchange ProcedureCode ::= 41

id-PositioningAssistanceInformationControl ProcedureCode ::= 42

id-PositioningAssistanceInformationFeedback ProcedureCode ::= 43

id-PositioningMeasurementReport ProcedureCode ::= 44

id-PositioningMeasurementAbort ProcedureCode ::= 45

id-PositioningMeasurementFailureIndication ProcedureCode ::= 46

id-PositioningMeasurementUpdate ProcedureCode ::= 47

id-TRPInformationExchange ProcedureCode ::= 48

id-PositioningInformationExchange ProcedureCode ::= 49

id-PositioningActivation ProcedureCode ::= 50

id-PositioningDeactivation ProcedureCode ::= 51

id-E-CIDMeasurementInitiation ProcedureCode ::= 52

id-E-CIDMeasurementFailureIndication ProcedureCode ::= 53

id-E-CIDMeasurementReport ProcedureCode ::= 54

id-E-CIDMeasurementTermination ProcedureCode ::= 55

id-PositioningInformationUpdate ProcedureCode ::= 56

id-ReferenceTimeInformationReport ProcedureCode ::= 57

id-ReferenceTimeInformationReportingControl ProcedureCode ::= 58

id-BroadcastContextSetup ProcedureCode ::= 59

id-BroadcastContextRelease ProcedureCode ::= 60

id-BroadcastContextReleaseRequest ProcedureCode ::= 61

id-BroadcastContextModification ProcedureCode ::= 62

id-MulticastGroupPaging ProcedureCode ::= 63

id-MulticastContextSetup ProcedureCode ::= 64

id-MulticastContextRelease ProcedureCode ::= 65

id-MulticastContextReleaseRequest ProcedureCode ::= 66

id-MulticastContextModification ProcedureCode ::= 67

id-MulticastDistributionSetup ProcedureCode ::= 68

id-MulticastDistributionRelease ProcedureCode ::= 69

id-PDCMeasurementInitiation ProcedureCode ::= 70

id-PDCMeasurementReport ProcedureCode ::= 71

id-PDCMeasurementInitiationRequest ProcedureCode ::= 72

id-PDCMeasurementInitiationResponse ProcedureCode ::= 73

id-PDCMeasurementInitiationFailure ProcedureCode ::= 74

id-pRSConfigurationExchange ProcedureCode ::= 75

id-measurementPreconfiguration ProcedureCode ::= 76

id-measurementActivation ProcedureCode ::= 77

id-QoEInformationTransfer ProcedureCode ::= 78

id-PDCMeasurementTerminationCommand ProcedureCode ::= 79

id-PDCMeasurementFailureIndication ProcedureCode ::= 80

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

id-DU-RX-MT-TX-Extend ProtocolIE-ID ::= 639

id-DU-TX-MT-RX-Extend ProtocolIE-ID ::= 640

id-BAP-Header-Rewriting-Removed-List ProtocolIE-ID ::= 641

id-BAP-Header-Rewriting-Removed-List-Item ProtocolIE-ID ::= 642

id-SLDRXCycleList ProtocolIE-ID ::= 643

id-TAINSAGSupportList ProtocolIE-ID ::= 644

id-SL-RLC-ChannelToAddModList ProtocolIE-ID ::= 645

id-BroadcastAreaScope ProtocolIE-ID ::= 646

id-ManagementBasedMDTPLMNModificationList ProtocolIE-ID ::= 647

id-SIB15-message ProtocolIE-ID ::= 648

id-ActivationRequestType ProtocolIE-ID ::= 649

id-PosMeasGapPreConfigList ProtocolIE-ID ::= 650

id-UE-MulticastMRBs-ConfirmedToBeModified-List ProtocolIE-ID ::= 900 -- to be allocated

id-UE-MulticastMRBs-ConfirmedToBeModified-Item ProtocolIE-ID ::= 901 -- to be allocated

id-UE-MulticastMRBs-RequiredToBeModified-List ProtocolIE-ID ::= 902 -- to be allocated

id-UE-MulticastMRBs-RequiredToBeModified-Item ProtocolIE-ID ::= 903 -- to be allocated

id-UE-MulticastMRBs-RequiredToBeReleased-List ProtocolIE-ID ::= 904 -- to be allocated

id-UE-MulticastMRBs-RequiredToBeReleased-Item ProtocolIE-ID ::= 905 -- to be allocated

END

-- ASN1STOP

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