3GPP TSG-RAN WG3 Meeting #122 R3-237821

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Source: Huawei, LG Electronics, Ericsson, Samsung, Nokia, Nokia Shanghai Bell

Title: (TP for BLCR 38.473) Multi-path relay

Document for: other

# 1 Introduction

This is a TP capturing agreements in RAN3#122.

# Proposal for 38.473

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

# 3 Definitions and abbreviations

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3.1 Definitions

**elementary procedure:** F1AP consists of Elementary Procedures (EPs). An Elementary Procedure is a unit of interaction between gNB-CU and gNB-DU. These Elementary Procedures are defined separately and are intended to be used to build up complete sequences in a flexible manner. If the independence between some EPs is restricted, it is described under the relevant EP description. Unless otherwise stated by the restrictions, the EPs may be invoked independently of each other as standalone procedures, which can be active in parallel. The usage of several F1AP EPs together is specified in stage 2 specifications (e.g., TS 38.470 [2]).

An EP consists of an initiating message and possibly a response message. Two kinds of EPs are used:

- **Class 1:** Elementary Procedures with response (success and/or failure).

- **Class 2:** Elementary Procedures without response.

For Class 1 EPs, the types of responses can be as follows:

Successful:

- A signalling message explicitly indicates that the elementary procedure successfully completed with the receipt of the response.

Unsuccessful:

- A signalling message explicitly indicates that the EP failed.

- On time supervision expiry (i.e., absence of expected response).

Successful and Unsuccessful:

- One signalling message reports both successful and unsuccessful outcome for the different included requests. The response message used is the one defined for successful outcome.

Class 2 EPs are considered always successful.

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

**Conditional handover:** as defined in TS 38.300 [6].

**Conditional PSCell Addition:** as defined in TS 37.340 [7].

**Conditional PSCell Change:** as defined in TS 37.340 [7].

**DAPS Handover**: as defined in TS 38.300 [6].

**EN-DC operation:** Used in this specification when the F1AP is applied for gNB-CU and gNB-DU in E-UTRAN.

**gNB:** as defined in TS 38.300 [6].

**gNB-CU:** as defined in TS 38.401 [4].

**gNB-CU UE F1AP ID:** as defined in TS 38.401 [4].

**gNB-DU:** as defined in TS 38.401 [4].

**gNB-DU UE F1AP ID:** as defined in TS 38.401 [4].

**en-gNB:** as defined in TS 37.340 [7].

**IAB-MT**: as defined in TS 38.300 [6].

**IAB-DU**: as defined in TS 38.300 [6].

**IAB-node**: as defined in TS 38.300 [6].

**IAB-donor**:as defined in TS 38.300 [6].

**IAB-donor-CU**: as defined in TS 38.401 [4].

**IAB-donor-DU**: as defined in TS 38.401 [4].

**MBS session resource**: as defined in TS 38.401 [4].

**MBS-associated signalling:** When F1AP messages associated to one MBS session uses the MBS-associated logical F1-connection for association of the message to the MBS session in gNB-DU and gNB-CU.

**MBS-associated logical F1-connection:** The MBS-associated logical F1-connection uses the identities *GNB-CU MBS F1AP ID* and *GNB-DU MBS F1AP ID* according to the definition in TS 38.401 [4]. For a received MBS-associated F1AP message thegNB-CU identifies the associated MBS session based on the *GNB-CU MBS F1AP ID* IE and the gNB-DU identifies the associated MBS session based on the *GNB-DU MBS F1AP ID* IE*.*

**MBS Session context in a gNB-DU:** as defined in TS 38.401 [4].

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

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

**Multi-path**: as defined in TS 38.300 [6].

**Multicast F1-U Context:** as defined in TS 38.401 [4].

**Other SI:** as defined in TS 38.300 [6].

**Public network integrated NPN:** as defined in TS 23.501 [21].

**Stand-alone Non-Public Network**: as defined in TS 23.501 [21].

**UE-associated signalling:** When F1AP messages associated to one UE uses the UE-associated logical F1-connection for association of the message to the UE in gNB-DU and gNB-CU.

**UE-associated logical F1-connection:** The UE-associated logical F1-connection uses the identities *GNB-CU UE F1AP ID* and *GNB-DU UE F1AP ID* according to the definition in TS 38.401 [4]. For a received UE associated F1AP message thegNB-CU identifies the associated UE based on the *GNB-CU UE F1AP ID* IE and the gNB-DU identifies the associated UE based on the *GNB-DU UE F1AP ID* IE*.* The UE-associated logical F1-connection may exist before the F1 UE context is setup in gNB-DU.

**U2N Relay UE:** a UE that provides functionality to support connectivity to the network for U2N Remote UE(s).

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

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

**PC5 Relay RLC channel:** as defined in TS 38.300 [6].

**SRAP:** Sidelink relay adaptation protocol, as defined in TS 38.300 [6].

## 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in TR 21.905 [1] and the following apply.   
An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in TR 21.905 [1].

5GC 5G Core Network

5QI 5G QoS Identifier

AMF Access and Mobility Management Function

ARP Antenna Reference Point

ARPI Additional RRM Policy Index

BH Backhaul

CAG Closed Access Group

CN Core Network

CG Cell Group

CG-SDT Configured Grant-Small Data Transmission

CGI Cell Global Identifier

CHO Conditional Handover

CP Control Plane

CPA Conditional PSCell Addition

CPC Conditional PSCell Change

DAPS Dual Active Protocol Stack

DL Downlink

DL-PRS Downlink Positioning Reference Signal

EN-DC E-UTRA-NR Dual Connectivity

EPC Evolved Packet Core

FSA ID MBS Frequency Selection Area (FSA) ID

IAB Integrated Access and Backhaul

IMEISV International Mobile station Equipment Identity and Software Version number

LMF Location Management Function

MBS Multicast/Broadcast Service

MP Multi-path

NID Network Identifier

NPN Non-Public Network

NSAG Network Slice AS Group

NSSAI Network Slice Selection Assistance Information

PDC Propagation Delay Compensation

PEIPS Paging Early Indication with Paging Subgrouping

posSIB Positioning SIB

PNI-NPN Public Network Integrated NPN

PTP Point to Point

PTM Point to Multipoint

QMC QoE Measurement Collection

QoE Quality of Experience

RANAC RAN Area Code

RedCap Reduced Capability

RIM Remote Interference Management

RIM-RS RIM Reference Signal

RRC Radio Resource Control

RSRP Reference Signal Received Power

SDT Small Data Transmission

SNPN Stand-alone Non-Public Network

S-NSSAI Single Network Slice Selection Assistance Information

SUL Supplementary Uplink

TAC Tracking Area Code

TAI Tracking Area Identity

TEG Timing Error Group

TRP Transmission-Reception Point

U2N UE-to-Network

UL-AoA Uplink Angle of Arrival

UL-RTOA Uplink Relative Time of Arrival

UL-SRS Uplink Sounding Reference Signal

Z-AoA Zenith Angles of Arrival

# 8 F1AP procedures

## 8.3 UE Context Management procedures

### 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. Except for RACH based SDT, the gNB-CU shall perform RRC Reconfiguration or RRC connection resume to send UE to the RRC\_CONNECTED state as described in TS 38.331 [8], and in this case, the *CellGroupConfig* IE shall transparently be signaled to the UE as specified in TS 38.331 [8]. In the case of RACH based SDT procedure, the *CellGroupConfig* IE shall be ignored by the gNB-CU.

If the *UE-CapabilityRAT-ContainerList* IE is included in the UE CONTEXT SETUP REQUEST, the gNB-DU shall take this information into account for UE specific configurations.

If the *servingCellMO* IE is included in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall configure servingCellMO for the indicated SpCell accordingly.

If the *servingCellMO List* IE is included in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, select servingCellMO after determining the list of BWPs for the UE and include the list of servingCellMOs that have been encoded in *CellGroupConfig* IE as *ServingCellMO-encoded-in-CGC List* IE in the UE CONTEXT SETUP RESPONSE message.

If the *SpCell UL Configured* IE is included in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall configure UL for the indicated SpCell accordingly.

If the *SCell To Be Setup List* IE is included in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall consider it as a list of candidate SCells to be set up. If the *SCell UL Configured* IE is included in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall configure UL for the indicated SCell accordingly. If the *servingCellMO* IE is included in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall configure servingCellMO for the indicated SCell accordingly.

If the *DRX Cycle* IE is contained in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall use the provided value from the gNB-CU.

If the *UL Configuration* IE in *DRB to Be Setup Item* IE is contained in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall take it into account for UL scheduling.

If the *SRB To Be Setup List* IE is contained in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall act as specified in TS 38.401 [4]. If *Duplication Indication* IE is contained in the *SRB To Be Setup List* IE, the gNB-DU shall, if supported, setup two RLC entities for the indicated SRB. If the *Additional* *Duplication Indication* IE is contained in the *SRB To Be Setup List* IE, the gNB-DU shall, if supported, setup the indicated RLC entities for the indicated SRB. If the *SDT RLC Bearer Configuration* IE is contained in the *SRB To Be Setup List* IE, the gNB-DU shall, if supported, use it for packet transmission belonging to the SDT SRB indicated by the *SRB ID* IE. If the *SRB Mapping Info* IE is contained in the *SRB To Be Setup List* IE, the gNB-DU shall, if supported, store the mapping information indicated in the S*RB Mapping Info* IE for the SRB identified by the *SRB ID* IE and the Uu Relay RLC channel identified by the *SRB Mapping Info* IE. The gNB-DU shall use the mapping information stored for the mapping of SRB data to Uu Relay RLC channel.

If the *DRB To Be Setup List* IE is contained in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall act as specified in TS 38.401 [4]. If the *QoS Flow Mapping Indication* IE is included in the *DRB To Be Setup List* IE for a QoS flow, the gNB-DU may take it into account that only the uplink or downlink QoS flow is mapped to the indicated DRB. If the *SDT RLC Bearer Configuration* IE is contained in the *DRB To Be Setup List* IE, the gNB-DU shall, if supported, use it for packet transmission belonging to the SDT DRB indicated by the *DRB ID* IE. If the *DRB Mapping Info* IE is contained in the *DRB To Be Setup List* IE, the gNB-DU shall, if supported, store the mapping information indicated in the *DRB Mapping Info* IE for the DRB identified by the *DRB ID* IE and the Uu Relay RLC channel identified by the *DRB Mapping Info* IE. The gNB-DU shall use the mapping information stored for the mapping of DRB data to Uu Relay RLC channel.

For each GBR DRB, if the *Alternative QoS Parameters Sets* IE is included in the *GBR QoS Flow Information* IE in the UE CONTEXT SETUP REQUEST message, gNB-DU shall, if supported, behave the same as the NG-RAN node in the PDU Session Resource Setup procedure, specified in TS 38.413 [3].

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 *BH RLC Channel To Be Setup List* IE is included in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall act as specified in TS 38.401 [4]. If the *Traffic Mapping Information* IE is included in the *BH RLC Channel To Be Setup Item IEs* IE for a BH RLC Channel, the gNB-DU shall, if supported, process the *Traffic Mapping Information* IE as follows:

- if the *IP to layer2 Traffic Mapping Info* IE is included, the gNB-DU shall store the mapping information contained in the *IP to layer2 Traffic Mapping Info To Add* IE, if present, for the egress BH RLC channel identified by the *BH RLC CH ID* IE, and shall remove the previously stored mapping information as indicated by the *IP to layer2 Mapping Traffic Info To Remove* IE, if present. The gNB-DU shall use the mapping information stored for the mapping of IP traffic to layer 2, as specified in TS 38.340 [30].

- if the *BAP layer BH RLC channel Mapping Info* IE is included, the gNB-DU shall store the mapping information contained in the *BAP layer BH RLC channel Mapping Info To Add* IE, if present, for the egress or ingress BH RLC channel identified by the *BH RLC CH ID* IE, and shall remove the previously stored mapping information as indicated by the *BAP layer BH RLC channel Mapping Info To Remove* IE, if present. The gNB-DU shall use the mapping information stored when forwarding traffic on BAP sublayer, as specified in TS 38.340 [30].

If two *UL UP TNL Information* IEs are included in UE CONTEXT SETUP REQUEST message for a DRB, gNB-DU shall include two *DL UP TNL Information* IEs in UE CONTEXT SETUP RESPONSE message and setup two RLC entities for the indicated DRB. 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]. The first *UP TNL Information* IE of the two *UP TNL Information* IEs is for the primary path*.*

If one or two *Additional PDCP Duplication UP TNL Information* IEs are included in the UE CONTEXT SETUP REQUEST message for a DRB, the gNB-DU shall, if supported, include one or two *Additional PDCP Duplication UP TNL Information* IEs in the UE CONTEXT SETUP RESPONSE message and setup one or two additional RLC entities for the indicated DRB. The gNB-CU and the 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 *Duplication Activation IE* is included in the UE CONTEXT SETUP REQUEST message for a DRB, gNB-DU should take it into account when activating/deactivating CA based PDCP duplication for the DRB. If the *RLC Duplication State List* IE is included in the *RLC Duplication Information* IE contained in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, take it into account when activating/deactivating CA based PDCP duplication for the DRB with more than two RLC entities.

If *DC Based Duplication Configured* IE is included in the UE CONTEXT SETUP REQUEST message for a DRB, gNB-DU shall regard that DC based PDCP duplication is configured for this DRB if the value is set to be "true" and it should take the responsibility of PDCP duplication activation/deactivation. If *DC Based Duplication Activation* IE is included in the UE CONTEXT SETUP REQUEST message for a DRB, gNB-DU should take it into account when activating/deactivating DC based PDCP duplication for this DRB. If the *RLC Duplication State List* IE is included in the *RLC Duplication Information* IE contained in the UE CONTEXT SETUP REQUEST message for a DRB, the gNB-DU shall, if supported, take it into account when activating/deactivating DC based PDCP duplication for the DRB with more than two RLC entities. If the *Primary Path Indication* IE is included in the *RLC Duplication Information* IE, the gNB-DU shall, if supported, take it into account when performing DC based PDCP duplication for the DRB with more than two RLC entities.

If *UL PDCP SN length* IE is included in the UE CONTEXT SETUP REQUEST message for a DRB, gNB-DU shall, if supported, store this information and use it for lower layer configuration.

For EN-DC operation, and if the *Subscriber Profile ID* *for RAT/Frequency priority* IE is received from an MeNB, the UE CONTEXT SETUP REQUEST message shall contain the *Subscriber Profile ID* *for RAT/Frequency priority* IE. If the *Additional RRM Policy Index* IE is received from an MeNB, the UE CONTEXT SETUP REQUEST message shall, if supported, contain the *Additional RRM Policy Index* IE. The gNB-DU shall store the received Subscriber Profile ID for RAT/Frequency priority in the UE context and use it as defined in TS 36.300 [20]. The gNB-DU shall, if supported, store the received Additional RRM Policy Index in the UE context and use it as defined in TS 36.300 [20].

If the *Index to RAT/Frequency Selection Priority* IE is available at the gNB-CU, the *Index to RAT/Frequency Selection Priority* IE shall be included in the UE CONTEXT SETUP REQUEST. The gNB-DU may use it for RRM purposes.

The gNB-DU shall report to the gNB-CU, in the UE CONTEXT SETUP RESPONSE message, the result for all the requested DRBs, SRBs, BH RLC channels, Uu RLC channels, PC5 Relay RLC channels, and SL DRBs in the following way:

- A list of DRBs which are successfully established shall be included in the *DRB Setup List* IE;

- A list of DRBs which failed to be established shall be included in the *DRB Failed to Setup List* IE;

- A list of SRBs which failed to be established shall be included in the *SRB Failed to Setup List* IE.

- A list of successfully established SRBs with logical channel identities for primary path shall be included in the *SRB Setup List* IE only if CA based PDCP duplication is initiated for the concerned SRBs.

- A list of BH RLC channels which are successfully established shall be included in the *BH RLC Channel Setup List* IE;

- A list of BH RLC channels which failed to be established shall be included in the *BH RLC Channel Failed to be Setup List* IE;

- A list of SL DRBs which are successfully established shall be included in the *SL DRB Setup List* IE;

- A list of SL DRBs which failed to be established shall be included in the *SL DRB Failed to Setup List* IE.

- A list of Uu Relay RLC channels which are successfully established shall be included in the *Uu RLC Channel Setup List* IE;

- A list of Uu Relay RLC channels which failed to be established shall be included in the *Uu RLC Channel Failed to be Setup List* IE;

- A list of PC5 Relay RLC channels which are successfully established shall be included in the *PC5 RLC Channel Setup List* IE;

- A list of PC5 Relay RLC channels which failed to be established shall be included in the *PC5 RLC Channel Failed to be Setup List* IE;

When the gNB-DU reports the unsuccessful establishment of a DRB or SRB or SL DRB or a BH RLC channel or a Uu RLC channel or a PC5 Relay RLC channel, the cause value should be precise enough to enable the gNB-CU to know the reason for the unsuccessful establishment.

For EN-DC operation, the gNB-CU shall include in the UE CONTEXT SETUP REQUEST the *E-UTRAN QoS* IE. The allocation of resources according to the values of the *Allocation and Retention Priority* IE included in the *E-UTRAN QoS* IE shall follow the principles described for the E-RAB Setup procedure in TS 36.413 [15].

For NG-RAN operation, the gNB-CU shall include in the UE CONTEXT SETUP REQUEST the *DRB Information* IE.

For DC operation, the *CG-ConfigInfo* IE shall be included in the *CU to DU RRC Information* IE at the gNB acting as secondary node. If the *CG-ConfigInfo* IE is included in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall regard it as a reconfiguration with sync as defined in TS 38.331 [8].

For sidelink operation, the *CG-ConfigInfo* IE shall be included in the *CU to DU RRC Information* IE if the gNB-CU receives sidelink related UE information from UE. If the *CG-ConfigInfo* IE is included in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall regard it as an indication of V2X sidelink information as defined in TS 38.331 [8].

If the *HandoverPreparationInformation* IE is included in the *CU to DU RRC Information* IE in the UE CONTEXT SETUP REQUEST message, the gNB-DU of the gNB acting as master node shall regard it as a reconfiguration with sync as defined in TS 38.331 [8]. The gNB-CU shall only initiate the UE Context Setup procedure for handover or secondary node addition when at least one DRB is setup for the UE, or at least one BH RLC channel is set up for IAB-MT. If the *HandoverPreparationInformation* IE containing the sidelink related UE information is included in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall regard it as an indication of V2X sidelink information as defined in TS 38.331 [8].

If the received *CU to DU RRC Information* IE does not include source cell group configuration, the gNB-DU shall generate the cell group configuration using full configuration. Otherwise, delta configuration is allowed.

If the gNB-CU includes the SMTC information of the measured frequency(ies) in the *MeasurementTimingConfiguration* IE of the *CU to DU RRC Information* IE that is included in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall generate the measurement gaps based on the received SMTC information. Then the gNB-DU shall send the measurement gaps information to the gNB-CU in the *MeasGapConfig* IE of the *DU to CU RRC Information* IE that is included in the UE CONTEXT SETUP RESPONSE message.

If the *MeasConfig* IE is included in the *CU to DU RRC Information* IE in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall deduce that changes to the measurements configuration need to be applied. If the *measObjectToAddModList* IE is included in the *MeasConfig* IE, then the frequencies added in such IE are to be activated. Then the gNB-DU shall decide if measurement gaps are needed or not and, if needed, the gNB-DU shall send the measurement gaps information to the gNB-CU in the *MeasGapConfig* IE of the *DU to CU RRC Information* IE that is included in the UE CONTEXT SETUP RESPONSE message. If the *measObjectToRemoveList* IE is included in the *MeasConfig* IE, the gNB-DU shall ignore it.

If the *NeedForGapsInfoNR* IE is included in the *CU to DU RRC Information* IE in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, use it as described in TS 38.331 [8]. If the *NeedForGapNCSG-InfoNR* IE is included in the *CU to DU RRC Information* IE in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, use it as described in TS 38.331 [8]. If the *NeedForGapNCSG-InfoEUTRA* IE is included in the *CU to DU RRC Information* IE in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, use it as described in TS 38.331 [8].

For EN-DC operation, if the gNB-CU includes the *Resource Coordination Transfer Information* IE in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, use it 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 SETUP REQUEST message shall be ignored. If the gNB-CU received the MeNB Resource Coordination Information as defined in TS 36.423 [9], it shall transparently transfer it to the gNB-DU via the *Resource Coordination Transfer Container* IE in the UE CONTEXT SETUP REQUEST 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.

For NGEN-DC or NE-DC operation, if the gNB-CU includes the *Resource Coordination Transfer Information* IE in the UE CONTEXT SETUP REQUEST 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], it shall transparently transfer it to the gNB-DU via the *Resource Coordination Transfer Container* IE in the UE CONTEXT SETUP REQUEST 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].

The *UEAssistanceInformation* IE shall be included in *CU to DU RRC Information* IE in the UE CONTEXT SETUP REQUEST message if the gNB-CU received this IE from the UE; if the *UEAssistanceInformation* IE is included in the *CU to DU RRC Information* IE in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, take it into account when configuring resources for the UE.

The *UEAssistanceInformationEUTRA* IE shall be included in *CU to DU RRC Information* IE in the UE CONTEXT SETUP REQUEST message if the gNB-CU received this IE from the UE; if the *UEAssistanceInformationEUTRA* IE is included in the *CU to DU RRC Information* IE in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, take it into account when configuring LTE sidelink resources for the UE.

If the *Resource Coordination Transfer Container* IE is included in the UE CONTEXT SETUP RESPONSE, 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].

If the *Masked IMEISV* IE is contained in the UE CONTEXT SETUP REQUEST message the gNB-DU shall, if supported, use it to determine the characteristics of the UE for subsequent handling.

If the *SCell Failed To Setup List* IE is contained in the UE CONTEXT SETUP RESPONSE message, the gNB-CU shall regard the corresponding SCell(s) failed to be set up with an appropriate cause value for each SCell failed to setup.

If the *Inactivity Monitoring Request* IE is contained in the UE CONTEXT SETUP REQUEST message, gNB-DU may consider that the gNB-CU has requested the gNB-DU to perform UE inactivity monitoring. If the *Inactivity Monitoring Response* IE is contained in the UE CONTEXT SETUP RESPONSE message and set to "Not-supported", the gNB-CU shall consider that the gNB-DU does not support UE inactivity monitoring for the UE.

If the *ServCellInfoList* IE is included in the *DU to CU RRC Information* IE contained in the UE CONTEXT SETUP RESPONSE message, the gNB-CU shall take it into account to generate the content of inter-node RRC message, i.e., *CG-Config* or *CG-ConfigInfo*, as described in TS 38.331 [8].

If the *Full Configuration* IE is contained in the UE CONTEXT SETUP RESPONSE message, the gNB-CU shall consider that the gNB-DU has generated the *CellGroupConfig* IE using full configuration.

If the *C-RNTI* IE is included in the UE CONTEXT SETUP RESPONSE, the gNB-CU shall consider that the C-RNTI has been allocated by the gNB-DU for this UE context.

The UE Context Setup Procedure is not used to configure SRB0.

If the UE CONTEXT SETUP REQUEST message contains the *RRC-Container* IE, the gNB-DU shall send the corresponding RRC message to the UE via SRB1.

If the *Notification Control* IE is included in the *DRB to Be Setup List* IE contained in the UE CONTEXT SETUP REQUEST message and it is set to active, the gNB-DU shall, if supported, monitor the QoS of the DRB and notify the gNB-CU if the QoS cannot be fulfilled any longer or if the QoS can be fulfilled again. The *Notification Control* IE can only be applied to GBR bearers.

If the *UL PDU Session Aggregate Maximum Bit Rate* IE is included in the *QoS Flow Level QoS Parameters* IE contained in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall store the received UL PDU Session Aggregate Maximum Bit Rate and use it when enforcing uplink traffic policing for non-GBR Bearers for the concerned UE as specified in TS 23.501 [21].

The gNB-DU shall store the received gNB-DU UE Aggregate Maximum Bit Rate Uplink and use it for non-GBR Bearers for the concerned UE.

If the UE CONTEXT SETUP REQUEST message contains the *QoS Flow Mapping Indication* IE, the gNB-DU may take it into account that only the uplink or downlink QoS flow is mapped to the DRB.

If the UE CONTEXT SETUP REQUEST message contains the *New gNB-CU UE F1AP ID* IE, the gNB-DU shall, if supported, replace the value received in the *gNB-CU UE F1AP ID* IE by the value of the *New gNB-CU UE F1AP ID* and use it for further signalling.

If the *RAN UE ID* IE is contained in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall store and replace any previous information received.

If the *Trace Activation* IE is included in the UE CONTEXT SETUP REQUEST message the gNB-DU shall, if supported, initiate the requested trace function as described in TS 32.422 [29].

In particular, the gNB-DU shall, if supported:

- if the *Trace Activation* IE includes the *MDT Activation* IE set to "Immediate MDT and Trace", initiate the requested trace session and MDT session as described in TS 32.422 [29];

- if the *Trace Activation* IE includes the *MDT Activation* IE set to "Immediate MDT Only", initiate the requested MDT session as described in TS 32.422 [29] and the gNB-DU shall ignore Interfaces To Trace IE, and Trace Depth IE. If the *Management Based MDT PLMN List* IE is contained in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, store the received information in the UE context, and use this information to allow subsequent selection of the UE for management based MDT defined in TS 32.422 [29].

For each QoS flow whose DRB has been successfully established and the *QoS Monitoring Request* IE was included in the *QoS Flow Level QoS Parameters* IE contained in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall store this information, and, if supported, perform delay measurement and QoS monitoring, as specified in TS 23.501 [21].

If the UE CONTEXT SETUP REQUEST message contains the *Configured* *BAP Address* IE, the gNB-DU shall, if supported, store this BAP address configured for the corresponding child IAB-node and use it as specified in TS 38.340 [30].

If the *BAP Control PDU Channel* IE is included in the *BH RLC Channel to be Setup List* IE, the gNB-DU shall, if supported, consider that the configured BH RLC channel can be used to transmit BAP Control PDUs, and use this BH RLC channel as specified in TS 38.340 [30].

If the *F1-C Transfer Path* IE is included in UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, take it into account.

If the *NR* *V2X Services Authorized* IE is contained in the UE CONTEXT SETUP REQUEST message and it contains one or more IEs set to "authorized", the gNB-DU node shall, if supported, consider that the UE is authorized for the relevant service(s).

If the *LTE V2X Services Authorized* IE is contained in the UE CONTEXT SETUP REQUEST message and it contains one or more IEs set to "authorized", the gNB-DU node shall, if supported, consider that the UE is authorized for the relevant service(s).

If the *NR UE Sidelink Aggregate Maximum Bit Rate* IE is contained in theUE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, use it for the concerned UE's sidelink communication in network scheduled mode for NR V2X services.

If the *LTE UE Sidelink Aggregate Maximum Bit Rate* IE is contained in theUE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, use it for the concerned UE's sidelink communication in network scheduled mode for LTE V2X services.

If the *PC5 Link Aggregate Bit Rate* IE is contained in theUE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, use it for the concerned UE's sidelink communication in network scheduled mode for NR V2X services as defined in TS 23.287 [40].

If the *TSC Traffic Characteristics* IE is included in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, take into account the corresponding information received in the *TSC Traffic Characteristics* IE.

If the *Conditional Inter-DU Mobility Information* IE is included in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall consider that the request concerns a conditional handover or conditional PSCell addition or conditional PSCell change for the included *SpCell ID* IE and shall include it as the *Requested Target Cell ID* IE in the UE CONTEXT SETUP RESPONSE message. The gNB-DU shall regard it as a reconfiguration with sync as defined in TS 38.331 [8].

If the *Target gNB-DU UE F1AP ID* IE is contained in the *Conditional Inter-DU Mobility Information* IE included in the UE CONTEXT SETUP REQUEST message, then the gNB-DU shall replace the existing prepared conditional handover or conditional PSCell addition or conditional PSCell change identified by the *Target gNB-DU UE F1AP ID* IE and the *SpCell ID* IE.

If the *Serving NID* IE is contained in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall combine the *Serving NID* IE with the *Serving PLMN* IEto identify the serving NPN, and may take it into account for UE context establishment.

If the *Estimated Arrival Probability* IE is contained in the *Conditional Inter-DU Mobility Information* IE included in the UE CONTEXT SETUP REQUEST message, then the gNB-DU may use the information to allocate necessary resources for the UE.

If for a given E-RAB for EN-DC operation the *ENB DL Transport Layer Address* IE is included in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, use it as part of its ACL functionality configuration actions, if such ACL functionality is deployed.

If for a given Qos flow for NG-RAN operation the *PDCP Terminating Node DL Transport Layer Address* IE is included in the UE CONTEXT SETUP REQUEST message, then the gNB-DU shall, if supported, use it as part of its ACL functionality configuration actions, if such ACL functionality is deployed.

If the *F1-C Transfer Path NRDC* IE is included in UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, take it into account.

If the *MDT Polluted Measurement Indicator* IE is included in the UE CONTEXT SETUP REQUEST, the gNB-DU shall take this information into account as specified in TS 38.401 [4].

If the *SCG Activation Request* IE is included in the UE CONTEXT SETUP REQUEST message, the gNB-DU may use it to configure SCG resources as specified in TS 37.340 [7] , and if supported, shall include the *SCG Activation Status* IE in the UE CONTEXT SETUP RESPONSE message. If the *SCG Activation Request* IE in the UE CONTEXT SETUP REQUEST message is set to “Activate SCG”, the gNB-DU shall activate the SCG resources and set the *SCG Activation Status* IE in the UE CONTEXT SETUP RESPONSE message to “SCG Activated”.

If the *Old CG-SDT Session Info* IE is included in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, retrieve the old CG-SDT resource configuration and old UE context based on the indicated gNB-CU F1AP UE ID and gNB-DU F1AP UE ID.

If the *5G ProSe Authorized* IE is contained in the UE CONTEXT SETUP REQUEST message and it contains one or more IEs set to "authorized", the gNB-DU node shall, if supported, consider that the UE is authorized for the relevant service(s).

If the *5G ProSe UE PC5 Aggregate Maximum Bit Rate* IE is contained in theUE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, use it for the concerned UE's sidelink communication in network scheduled mode for 5G ProSe services.

If the *5G ProSe PC5 Link Aggregate Bit Rate* IE is contained in theUE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, use it for the concerned UE's sidelink communication in network scheduled mode for 5G ProSe services as defined in TS 23.304 [44].

If the *Uu RLC Channel To Be Setup List* IE is contained in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, act as specified in TS 38.401 [4]. gNB-DU generates the Uu Relay RLC channel configurations for a L2 U2N Relay UE or a L2 MP Relay UE using N3C.

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

If the *Path Switch Configuration* IE is contained in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, use it to configure the path switch from direct path to indirect path as specified in TS 38.401 [4].

If the *MUSIM-GapConfig* IE is contained in the *CU to DU RRC Information* IE included in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, decide to use this IE for MUSIM gap configuration or select another one based on the received *UEAssistanceInformation* IE. If gNB-DU selects a different MUSIM gap configuration from received *UEAssistanceInformation* IE, then it shall include the selected MUSIM gap information to the gNB-CU in the *MUSIM-GapConfig* IE of the *DU to CU RRC Information* IE that is included in the UE CONTEXT SETUP RESPONSE message.

If *MUSIM-GapConfig* IE is not contained in the *CU to DU RRC Information* IE, then gNB-DU shall, if supported, send the selected MUSIM gap configuration based on the received *UEAssistanceInformation* IE, to the gNB-CU in the *MUSIM-GapConfig* IE of the *DU to CU RRC Information* IE that is included in the UE CONTEXT SETUP RESPONSE message. When MUSIM-GapConfig IE is received, the gNB-CU should use this value.

If the *gNB-DU UE Slice Maximum Bit Rate List* IE is included in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, store and use the information for the uplink traffic policing for each concerned slice as specified in TS 23.501 [21].

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. If the *Source MRB ID* IE is included in the *UE Multicast MRB to Be Setup Item IEs* IE, the DU shall, if supported, use it to identify the MRB configuration as provided to the UE in the source cell and take it into account for configuring MBS Session Resources.

If the *InterFrequencyConfig-NoGap* IE is included in the *DU to CU RRC Information* IE contained in the UE CONTEXT SETUP RESPONSE message, the gNB-CU shall, if supported, use it as described in TS 38.331 [8].

If the *ul-GapFR2-Config* IE is contained in the *DU to CU RRC Information* IE that is included in the UE CONTEXT SETUP RESPONSE message, the gNB-CU shall, if supported, use it as described in TS 38.331 [8].

If the *TwoPHRModeMCG* IE or the *TwoPHRModeSCG* IE is contained in the *DU to CU RRC Information* IE that is included in the UE CONTEXT SETUP RESPONSE message, the gNB-CU shall, if supported, use this value as described in TS 38.331 [8].

If the *MBSInterestIndication* IE is included in the *CU to DU RRC Information* IE in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, take it into account when configuring resources for the UE.

If the *ncd-SSB-RedCapInitialBWP-SDT* IE is contained in the *DU to CU RRC Information* IE that is included in the UE CONTEXT SETUP RESPONSE message, the gNB-CU shall, if supported, use it as described in TS 38.331 [8].

If the *Indirect Path Addition* IE is contained in the *Path Addition Information* IE which is included in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall, if supported, consider that the request concerns the indirect path addition for the MP Remote UE using PC5 link and use it as specified in TS 38.401 [4]. If the *N3C* *Indirect Path Addition* IE is contained in the *Path Addition Information* IE, the gNB-DU shall, if supported, consider that the request concerns the indirect path addition for the MP Remote UE using N3C and use it as specified in TS 38.401 [4].

#### 8.3.1.3 Unsuccessful Operation



Figure 8.3.1.3-1: UE Context Setup Request procedure: unsuccessful Operation

If the gNB-DU is not able to establish an F1 UE context, or cannot even establish one bearer it shall consider the procedure as failed and reply with the UE CONTEXT SETUP FAILURE message. If the *Conditional Inter-DU Mobility Information* IE was included in the UE CONTEXT SETUP REQUEST message, the gNB-DU shall include the received *SpCell ID* IE as the *Requested Target Cell ID* IE in the UE CONTEXT SETUP FAILURE message.

If the gNB-DU is not able to accept the *SpCell ID* IE in UE CONTEXT SETUP REQUEST message, it shall reply with the UE CONTEXT SETUP FAILURE message with an appropriate cause value. Further, if the *Candidate SpCell List* IEis included in the UE CONTEXT SETUP REQUEST message and the gNB-DU is not able to accept the *SpCell ID* IE, the gNB-DU shall, if supported, include the *Potential SpCell List* IE in the UE CONTEXT SETUP FAILURE message and the gNB-CU should take this into account for selection of an opportune SpCell. The gNB-DU shall include the cells in the *Potential SpCell List* IE in a priority order, where the first cell in the list is the one most desired and the last one is the one least desired (e.g., based on load conditions). If the *Potential SpCell List* IE is present but no *Potential SpCell Item* IE is present, the gNB-CU should assume that none of the cells in the *Candidate SpCell List* IE are acceptable for the gNB-DU.

#### 8.3.1.4 Abnormal Conditions

If the gNB-DU receives a UE CONTEXT SETUP 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 SETUP RESPONSE message with an appropriate cause value. If the gNB-DU receives a UE CONTEXT SETUP 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 SETUP 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 SETUP 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 SETUP RESPONSE message with an appropriate cause value.

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 SETUP REQUEST message was not prepared using the same UE-associated signaling connection, the gNB-DU shall ignore this candidate cell.

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

#### 8.3.4.1 General

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

#### 8.3.4.2 Successful Operation



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

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

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

If the *SpCell ID* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall replace any previously received value and regard it as a reconfiguration with sync as defined in TS 38.331 [8]. If the *ServCellIndex* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall take this into account for the indicated SpCell. If the *SpCell UL Configured* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall configure UL for the indicated SpCell accordingly. If the *servingCellMO* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall configure servingCellMO for the indicated SpCell accordingly. If the *servingCellMO List* IE is included in the UE CONTEXT SETUP MODIFICATION REQUEST message, the gNB-DU shall, if supported, configure servingCellMO after determining the list of BWPs for the UE and include the list of servingCellMOs that have been encoded in *CellGroupConfig* IE as *ServingCellMO-encoded-in-CGC List* IE in theUE CONTEXT MODIFICATION RESPONSE message.

If the *SCell To Be Setup List* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall consider it as a list of candidate SCells to be set up. If the *SCell To Be Setup List* IE is included in the UE CONTEXT MODIFICATION REQUEST message and the indicated SCell(s) are already setup, the gNB-DU shall replace any previously received value. If the *SCell UL Configured* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall configure UL for the indicated SCell accordingly. If the *servingCellMO* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall configure servingCellMO for the indicated SCell accordingly.

If the *SCell To Be Removed List* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall consider it as a list of SCells to be removed.

If the *DRX Cycle* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall use the provided value from the gNB-CU. If the *DRX configuration indicator* IE is contained in the UE CONTEXT MODIFICATION REQUEST message and set to "release", the gNB-DU shall release DRX configuration.

If the *SL* *DRX Cycle list* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, use the provided value from the gNB-CU for the indicated RX UE of this UE. If the *SL DRX configuration indicator* IE is contained in the UE CONTEXT MODIFICATION REQUEST message and set to "release", the gNB-DU shall, if supported, release SL DRX configuration for the indicated RX UE of this UE.

If the *SRB To Be Setup List* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall act as specified in the TS 38.401 [4], and replace any previously received value. If *Duplication Indication* IE is contained in the *SRB To Be Setup List* IE, the gNB-DU shall, if supported, setup two RLC entities for the indicated SRB if the value is set to be "true", or delete the RLC entity of secondary path if the value is set to be "false". If the *Additional* *Duplication Indication* IE is contained in the *SRB To Be Setup List* IE, the gNB-DU shall, if supported, setup the indicated RLC entities for the indicated SRB. If the *SRB Mapping Info* IE is contained in the *SRB To Be Setup List* IE, the gNB-DU shall, if supported, store the mapping information indicated in the *SRB Mapping Info* IE for the SRB identified by the *SRB ID* IE and the Uu Relay RLC channel identified by the *SRB Mapping Info*. The gNB-DU shall use the mapping information stored for the mapping of SRB data to Uu Relay RLC channel. If the *Duplication Indication* IE and *SRB Mapping Info* IE are both contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, setup one RLC entity for the direct path if the value is set to be "true", and map the indicated SRB to the Uu Relay RLC channel based on the *SRB Mapping Info* IE. If the *Additional* *Duplication Indication* IE and *SRB Mapping Info* IE are both contained in the *SRB To Be Setup List* IE, the gNB-DU shall, if supported, setup the indicated RLC entities for the indicated SRB, and map the indicated SRB to the Uu Relay RLC channel or the logical channel based on the *SRB Mapping Info* IE. The number of RLC entities to be set up is the indicated value of *Additional* *Duplication Indication* IE minus 1.

If the *DRB To Be Setup List* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall act as specified in the TS 38.401 [4]. If the *DRB Mapping Info* IE is contained in the *DRB To Be Setup List* IE, the gNB-DU shall, if supported, store the mapping information indicated in the *DRB Mapping Info* IE, if present, for the DRB identified by the *DRB ID* IE and the Uu Relay RLC channel identified by the *DRB Mapping Info*. The gNB-DU shall use the mapping information stored for the mapping of DRB data to Uu Relay RLC channel.

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 *BH RLC Channel To Be Setup List* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall act as specified in TS 38.401 [4]. If the *Traffic Mapping Information* IE is included in the *BH RLC Channel To Be Setup Item IEs* IE for a BH RLC Channel, the gNB-DU shall, if supported, process the *Traffic Mapping* Information IE following the behaviour described for the UE Context Setup procedure.

If the *BH RLC Channel To Be Modified List* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall act as specified in TS 38.401 [4]. If the *Traffic Mapping Information* IE is included in the *BH RLC Channel To Be Modified Item IEs* IE for a BH RLC Channel, the gNB-DU shall, if supported, process the *Traffic Mapping Information* IE following the behaviour described for the UE Context Setup procedure.

If the *BH RLC Channel To Be Released List* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall release the BH RLC channels in the list.

If two *UL UP TNL Information* IEs are included and the *DRB Mapping Info* IE is not contained in UE CONTEXT MODIFICATION REQUEST message for a DRB, the gNB-DU shall include two *DL UP TNL Information* IEs in UE CONTEXT MODIFICATION RESPONSE message and setup two RLC entities for the indicated DRB. If the *UL UP TNL Information* IE with the *DRB Mapping Info* IE and the *UL UP TNL Information* IE without the *DRB Mapping Info* IE are both contained in the UE CONTEXT MODIFICATION REQUEST message for a DRB, the gNB-DU shall, if supported, include two *DL UP TNL Information* IEs in UE CONTEXT MODIFICATION RESPONSE message, setup one RLC entity for the *UL UP TNL Information* IE without the *DRB Mapping Info* IE, and map the downlink data received via the F1-U tunnel associated with the indirect path of the indicated DRB to the Uu Relay RLC channel based on the *DRB Mapping Info* IE. 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 and multi-path relay as defined in TS 38.470 [2]. The first *UP TNL Information* IE of the two *UP TNL Information* IEs is for the primary path*.*

If one or two *Additional PDCP Duplication UP TNL Information* IEs are included in the UE CONTEXT MODIFICATION REQUEST message for a DRB, the gNB-DU shall, if supported, include one or two *Additional PDCP Duplication UP TNL Information* IEs in the UE CONTEXT MODIFICATION RESPONSE message and setup one or two additional RLC entities for the indicated DRB. The gNB-CU and the 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 *Duplication Activation* IE is included in the UE CONTEXT MODIFICATION REQUEST message for a DRB, the gNB-DU should take it into account when activating/deactivating CA based PDCP duplication or multi-path relay based PDCP duplication for the DRB. If the *RLC Duplication State List* IE is included in the *RLC Duplication Information* IE contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, take it into account for the DRB with more than two RLC entities.

If *DC Based Duplication Configured* IE is included in the UE CONTEXT MODIFICATION REQUEST message for a DRB, the gNB-DU shall regard that DC based PDCP duplication is configured for this DRB if the value is set to be "true" and it should take the responsibility of PDCP duplication activation/deactivation. Otherwise, the gNB-DU shall regard that DC based PDCP duplication is de-configured for this DRB id the value is set to be "false", and it should stop PDCP duplication activation/deactivation by MAC CE. If *DC Based Duplication Activation* IE is included in the UE CONTEXT MODIFICATION REQUEST message for a DRB, the gNB-DU should take it into account when activating/deactivating DC based PDCP duplication for this DRB. If the *RLC Duplication State List* IE is included in the *RLC Duplication Information* IE contained in the UE CONTEXT MODIFICATION REQUEST message for a DRB, the gNB-DU shall, if supported, take it into account when activating/deactivating DC based PDCP duplication for the DRB with more than two RLC entities. If the *Primary Path Indication* IE is included in the *RLC Duplication Information* IE, the gNB-DU shall, if supported, take it into account when performing DC based PDCP duplication for the DRB with more than two RLC entities.

For a certain DRB which was allocated with two GTP-U tunnels, if such DRB is modified and given one GTP-U tunnel via the UE Context Modification procedure, the gNB-DU shall consider that the CA based PDCP duplication or multi-path relay based PDCP duplication for the concerned DRB is de-configured. If such UE Context Modification procedure occurs, the *Duplication Activation* IE shall not be included for the concerned DRB.

If the *UL Configuration* IE in *DRB to Be Setup Item* IE or *DRB to Be Modified* *Item* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall take it into account for UL scheduling.

If the *RRC Reconfiguration Complete Indicator* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall consider the ongoing reconfiguration procedure involving changes of the L1/L2 configuration at the gNB-DU signalled to the gNB-CU via the *CellGroupConfig* IE for MR-DC operation or standalone operation has been successfully performed when such IE is set to ‘true’; otherwise (when such IE is set to ‘failure’), the gNB-DU shall consider the ongoing reconfiguration procedure has been failed and it shall continue to use the old L1/L2 configuration.

If *DL PDCP SN* *length* IE is included in the UE CONTEXT MODIFICATION REQUEST message for a DRB, gNB-DU shall, if supported, store this information and use it for lower layer configuration.

If *UL PDCP SN length* IE is included in the UE CONTEXT MODIFICATION REQUEST message for a DRB, gNB-DU shall, if supported, store this information and use it for lower layer configuration.

If the *RLC Failure Indication* IE is included in UE CONTEXT MODIFICATION REQUEST message, the gNB-DU should consider that the RLC entity indicated by such IE needs to be re-established when the CA-based packet duplication is active, and the gNB-DU may include the *Associated SCell List* IE in UE CONTEXT MODIFICATION RESPONSE by containing a list of SCell(s) associated with the RLC entity indicated by the *RLC Failure Indication* IE.

If the UE CONTEXT MODIFICATION REQUEST message contains the *RRC-Container* IE, the gNB-DU shall send the corresponding RRC message to the UE. If the UE CONTEXT MODIFICATION REQUEST 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 REQUEST message contains the *Transmission Action Indicator* IE, the gNB-DU shall stop or restart (if already stopped) data transmission for the UE, according to the value of this IE. It is up to gNB-DU implementation when to stop or restart the UE scheduling.

For EN-DC operation, if the *DRB to Be Setup List* IE is present in the UE CONTEXT MODIFICATION REQUEST message the gNB-CU shall include the *E-UTRAN QoS* IE. The allocation of resources according to the values of the *Allocation and Retention Priority* IE included in the *E-UTRAN QoS* IE shall follow the principles described for the E-RAB Setup procedure in TS 36.413 [15]. For NG-RAN operation, the gNB-CU shall include the *DRB Information* IE in the UE CONTEXT MODIFICATION REQUEST message.

If the gNB-CU includes the SMTC information of the measured frequency(ies) in the *MeasurementTimingConfiguration* IE of the *CU to DU RRC Information* IE that is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall generate the measurement gaps based on the received SMTC information. Then the gNB-DU shall send the measurement gaps information to the gNB-CU in the *MeasGapConfig* IE of the *DU to CU RRC Information* IE that is included in the UE CONTEXT MODIFICATION RESPONSE message.

If the *MeasConfig* IE is included in the *CU to DU RRC Information* IE in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall deduce that changes to the measurements’ configuration need to be applied. The gNB-DU shall take the received info, e.g. the *measObjectToAddModList* IE, and/or the *measObjectToRemoveList* IE into account, when generating measurement gap and when deciding if a measurement gap is needed or not.

If the *NeedForGapsInfoNR* IE is included in the *CU to DU RRC Information* IE in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, use it as described in TS 38.331 [8]. If the *NeedForGapNCSG-InfoNR* IE is included in the *CU to DU RRC Information* IE in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, use it as described in TS 38.331 [8]. If the *NeedForGapNCSG-InfoEUTRA* IE is included in the *CU to DU RRC Information* IE in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, use it as described in TS 38.331 [8].

For DC operation, if the gNB-CU includes the *CG-Config* IE in the *CU to DU RRC Information* IE that is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU may initiate low layer parameters coordination taking this information into account.

For sidelink operation, the *CG-ConfigInfo* IE shall be included in the *CU to DU RRC Information* IE if the gNB-CU receives sidelink related UE information from UE. If the *CG-ConfigInfo* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall regard it as an indication of V2X sidelink information as defined in TS 38.331 [8].

For EN-DC operation, if the gNB-CU includes the *Resource Coordination Transfer Information* IE in the UE CONTEXT MODIFICATION REQUEST 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 Setup procedures, the gNB-CU shall transparently transfer it to the gNB-DU via the *Resource Coordination Transfer Container* IE in the UE CONTEXT MODIFICATION REQUEST 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 REQUEST 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 REQUEST 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 Setup procedures, the gNB-CU shall transparently transfer it to the gNB-DU via the *Resource Coordination Transfer Container* IE in the UE CONTEXT MODIFICATION REQUEST 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].

For EN-DC operation, and if the *Subscriber Profile ID* *for RAT/Frequency priority* IE is received from an MeNB, the UE CONTEXT MODIFICTION REQUEST message shall contain the *Subscriber Profile ID* *for RAT/Frequency priority* IE. If the *Additional RRM Policy Index* IE is received from an MeNB, the UE CONTEXT MODIFICATION REQUEST message shall , if supported, contain the *Additional RRM Policy Index* IE. The gNB-DU shall store the received Subscriber Profile ID for RAT/Frequency priority in the UE context and use it as defined in TS 36.300 [20]. The gNB-DU shall, if supported, store the received Additional RRM Policy Index in the UE context and use it as defined in TS 36.300 [20].

If the *Index to RAT/Frequency Selection Priority* IE is modified at the gNB-CU, the *Index to RAT/Frequency Selection Priority* IE shall be included in the UE CONTEXT MODIFICATION REQUEST. The gNB-DU may use it for RRM purposes.

Only one of the following IEs shall be contained in the UE CONTEXT MODIFICATION REQUEST message: the *Uplink TxDirectCurrentList Information* IE or the *Uplink TxDirectCurrentTwoCarrierList Information* IE or the *Uplink TxDirectCurrentMoreCarrierList Information* IE. If the UE CONTEXT MODIFICATION REQUEST message contains one of the *Uplink TxDirectCurrentList Information* IE or the *Uplink TxDirectCurrentTwoCarrierList Information* IE or the *Uplink TxDirectCurrentMoreCarrierList Information* IE, the gNB-DU may take that into account when selecting L1 configuration.

The *UEAssistanceInformation* IE shall be included in *CU to DU RRC Information* IE in the UE CONTEXT MODIFICATION REQUEST message if the gNB-CU received this IE from the UE; if the *UEAssistanceInformation* IE is included in the *CU to DU RRC Information* IE in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, take it into account when configuring resources for the UE.

The *UEAssistanceInformationEUTRA* IE shall be included in *CU to DU RRC Information* IE in the UE CONTEXT MODIFICATION REQUEST message if the gNB-CU received this IE from the UE; if the *UEAssistanceInformationEUTRA* IE is included in the *CU to DU RRC Information* IE in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, take it into account when configuring LTE sidelink resources for the UE.

The gNB-DU shall report to the gNB-CU, in the UE CONTEXT MODIFICATION RESPONSE message, the result for all the requested or modified DRBs, SRBs, BH RLC Channels, Uu Relay RLC channels, PC5 Relay RLC channels, and SL DRBs in the following way:

- A list of DRBs which are successfully established shall be included in the *DRB Setup List* IE;

- A list of DRBs which failed to be established shall be included in the *DRB Failed to be Setup List* IE;

- A list of DRBs which are successfully modified shall be included in the *DRB Modified List* IE;

- A list of DRBs which failed to be modified shall be included in the *DRB Failed to be Modified List* IE;

- A list of SRBs which failed to be established shall be included in the *SRB Failed to be Setup List* IE.

- A list of successfully established SRBs with logical channel identities for primary path shall be included in the *SRB Setup List* IE only if CA based PDCP duplication is initiated for the concerned SRBs.

- A list of successfully modified SRBs with logical channel identities for primary path shall be included in the *SRB Modified List* IE only if CA based PDCP duplication is initiated for the concerned SRBs.

- A list of BH RLC channels which are successfully established shall be included in the *BH RLC Channel Setup List* IE;

- A list of BH RLC channels which failed to be established shall be included in the *BH RLC Channel Failed to be Setup List* IE;

- A list of BH RLC channels which are successfully modified shall be included in the *BH RLC Channel Modified List* IE;

- A list of BH RLC channels which failed to be modified shall be included in the *BH RLC Channel Failed to be Modified List* IE;

- A list of Uu Relay RLC channels which are successfully established shall be included in the *Uu RLC Channel Setup List* IE;

- A list of Uu Relay RLC channels which failed to be established shall be included in the *Uu RLC Channel Failed to be Setup List* IE;

- A list of Uu Relay RLC channels which are successfully modified shall be included in the *Uu RLC Channel Modified List* IE;

- A list of Uu Relay RLC channels which are failed to be modified shall be included in the *Uu RLC Channel Failed to be Modified List* IE;

- A list of PC5 Relay RLC channels which are successfully established shall be included in the *PC5 RLC Channel Setup List* IE;

- A list of PC5 Relay RLC channels which failed to be established shall be included in the *PC5 RLC Channel Failed to be Setup List* IE;

- A list of PC5 Relay RLC channels which are successfully modified shall be included in the *PC5 RLC Channel Modified List* IE;

- A list of PC5 Relay RLC channels which failed to be modified shall be included in the *PC5 RLC Channel Failed to be Modified List* IE;

- A list of SL DRBs which are successfully established shall be included in the *SL DRB Setup List* IE;

- A list of SL DRBs which failed to be established shall be included in the *SL DRB Failed to be Setup List* IE;

- A list of SL DRBs which are successfully modified shall be included in the *SL DRB Modified List* IE;

- A list of SL DRBs which failed to be modified shall be included in the *SL DRB Failed to be Modified List* IE.

For each GBR DRB, if the *Alternative QoS Parameters Sets* IE is included in the *GBR QoS Flow Information* IE in the UE CONTEXT MODIFICATION REQUEST message, gNB-DU shall, if supported, behave the same as the NG-RAN node in the PDU Session Resource Setup procedure, specified in TS 38.413 [3].

If the *BAP Control PDU Channel* IE is included in the *BH RLC Channel to be Setup List* IE, the gNB-DU shall, if supported, consider that the configured BH RLC channel can be used to transmit BAP Control PDUs, and use this BH RLC channel as specified in TS 38.340 [30].

If the *BAP Control PDU Channel* IE is included in the *BH RLC Channel to be Modified List* IE, the gNB-DU shall, if supported, consider that the configured BH RLC channel can be used to transmit BAP Control PDUs, and use this BH RLC channel as specified in TS 38.340 [30]. Otherwise, if the *BAP Control PDU Channel* IE is not present for any BH RLC channel, any available BH RLC channel can be used to transmit BAP Control PDUs as specified in TS 38.340 [30].

If the *F1-C Transfer Path* IE is included in UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, take it into account.

When the gNB-DU reports the unsuccessful establishment of a DRB or SRB or SL DRB or a BH RLC channel or a Uu Relay RLC channel or a PC5 Relay RLC channel, the cause value should be precise enough to enable the gNB-CU to know the reason for the unsuccessful establishment.

If the *Resource Coordination Transfer Container* IE is included in the UE CONTEXT MODIFICATION RESPONSE, 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].

If the *DU to CU RRC Information* IE is included in the UE CONTEXT MODIFICATION RESPONSE message, except for the CG-SDT procedure, 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]. In the case of CG-SDT, the *CellGroupConfig* IE shall be ignored by the gNB-CU.

If the *ServCellInfoList* IE is included in the *DU to CU RRC Information* IE contained in the UE CONTEXT MODIFICATION RESPONSE message, the gNB-CU shall take it into account to generate the content of inter-node message, i.e., *CG-Config* or *CG-ConfigInfo*, as described in TS 38.331 [8].

If the *UE-CapabilityRAT-ContainerList* IE is included in the UE CONTEXT SETUP MODIFICATION REQUEST, the gNB-DU shall take this information into account for UE specific configurations.

If the *SCell Failed To Setup List* IE is contained in the UE CONTEXT MODIFICATION RESPONSE message, the gNB-CU shall regard the corresponding SCell(s) failed to be set up with an appropriate cause value for each SCell failed to setup.

If the *C-RNTI* IE is included in the UE CONTEXT MODIFICATION RESPONSE, the gNB-CU shall consider that the C-RNTI has been allocated by the gNB-DU for this UE context.

If the *Inactivity Monitoring Request* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, gNB-DU may consider that the gNB-CU has requested the gNB-DU to perform UE inactivity monitoring. If the *Inactivity Monitoring Response* IE is contained in the UE CONTEXT MODIFICATION RESPONSE message and set to "Not-supported", the gNB-CU shall consider that the gNB-DU does not support UE inactivity monitoring for the UE.

The UE Context Modify Procedure is not used to configure SRB0.

If in the UE CONTEXT MODIFICATION REQUEST, the *Notification Control* IE is included in the *DRB to Be Setup List* IE or the *DRB to Be Modified List* IE and it is set to active, the gNB-DU shall, if supported, monitor the QoS of the DRB and notify the gNB-CU if the QoS cannot be fulfilled any longer or if the QoS can be fulfilled again. The *Notification Control* IE can only be applied to GBR bearers.

If the *UL PDU Session Aggregate Maximum Bit Rate* IE is included in the *QoS Flow Level QoS Parameters* IE containded in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall replace the received UL PDU Session Aggregate Maximum Bit Rate and use it as specified in TS 23.501 [21].

If the *gNB-DU UE Aggregate Maximum Bit Rate Uplink* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall:

- replace the previously provided gNB-DU UE Aggregate Maximum Bit Rate Uplink with the new received gNB-DU UE Aggregate Maximum Bit Rate Uplink;

- use the received gNB-DU UE Aggregate Maximum Bit Rate Uplink for non-GBR Bearers for the concerned UE.

The *gNB-DU UE Aggregate Maximum Bit Rate Uplink* IE shall be sent in the UE CONTEXT MODIFICATION REQUEST if *DRB to Be Setup List* IE is included and the gNB-CU has not previously sent it. The gNB-DU shall store and use the received *gNB-DU UE Aggregate Maximum Bit Rate Uplink* IE.

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

If the GNB-*DU Configuration Query* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, gNB-DU shall include the *DU To CU RRC Information* IE in the UE CONTEXT MODIFICATION RESPONSE message.

If the *Bearer Type Change* IE is included in *DRB to Be Modified List* IE in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall either reset the lower layers or generate a new LCID for the affected bearer as specified in TS 37.340 [7].

For NE-DC operation, if *NeedforGap* IE is included in the UE CONTEXT MODIFICATION REQUEST message,the gNB-DU shall generate measurement gap for the SeNB.

If the *QoS Flow Mapping Indication* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, replace any previously received value and take it into account that only the uplink or downlink QoS flow is mapped to the DRB.

If the *Lower Layer presence status change* IE set to "suspend lower layers" is included in the UE CONTEXT MODIFICATION REQUEST, the gNB-DU shall keep all lower layer configuration for UEs, and not transmit or receive data from UE.

If the *Lower Layer presence status change* IE set to "resume lower layers" is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall use the previously stored lower layer configuration for the UE.

If the *Full Configuration* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall generate a *CellGroupConfig* IE using full configuration and include it in the UE CONTEXT MODIFICATION RESPONSE.

If the *Full Configuration* IE is contained in the UE CONTEXT MODIFICATION RESPONSE message, the gNB-CU shall consider that the gNB-DU has generated the *CellGroupConfig* IE using full configuration.

For each QoS flow whose DRB has been successfully established or modified and the *QoS Monitoring Request* IE was included in the *QoS Flow Level QoS Parameters* IE contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall store this information, and, if supported, perform delay measurement and QoS monitoring, as specified in TS 23.501 [21].

If the *NR* *V2X Services Authorized* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, update its V2X services authorization information for the UE accordingly. If the *NR* *V2X Services Authorized* IE includes one or more IEs set to "not authorized", the gNB-DU shall, if supported, initiate actions to ensure that the UE is no longer accessing the relevant service(s).

If the *LTE* *V2X Services Authorized* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, update its V2X services authorization information for the UE accordingly. If the *LTE* *V2X Services Authorized* IE includes one or more IEs set to "not authorized", the gNB-DU shall, if supported, initiate actions to ensure that the UE is no longer accessing the relevant service(s).

If the *LTE UE Sidelink Aggregate Maximum Bit Rate* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported:

- replace the previously provided UE LTE Sidelink Aggregate Maximum Bit Rate, if available in the UE context, with the received value;

- use the received value for the concerned UE’s sidelink communication in network scheduled mode for LTE V2X services.

If the *NR UE Sidelink Aggregate Maximum Bit Rate* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported:

- replace the previously provided UE NR Sidelink Aggregate Maximum Bit Rate, if available in the UE context, with the received value;

- use the received value for the concerned UE’s sidelink communication in network scheduled mode for NR V2X services.

If the *PC5 Link Aggregate Maximum Bit Rate* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported:

- replace the previously provided UE PC5 Link Aggregate Bit Rate, if available in the UE context, with the received value;

- use the received value for the concerned UE’s sidelink communication in network scheduled mode for NR V2X services as defined in TS 23.287 [40].

If the *TSC Traffic Characteristics* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, take into account the corresponding information received in the *TSC Traffic Characteristics* IE.

If the *CPAC MCG Information* IE is included in the UE CONTEXT MODIFICATION REQUEST message and the CPAC Trigger is set to "CPAC-preparation", the gNB-DU shall, if supported, consider that the request concerns a conditional PSCell addition or conditional PSCell change. The gNB-DU takes the included *CG-Config* and/or *CG-ConfigInfo* IE into account, and may provide a corresponding *CellGroupConfig* IE for MCG configuration preparation in the UE CONTEXT MODIFICATION RESPONSE message. The UE CONTEXT MODIFICATION RESPONSE message also includes a *Requested Target Cell ID* IE corresponding to the *PSCell ID* IE in the UE CONTEXT MODIFICATION REQUEST message.

If the *CPAC MCG Information* IE is included in the UE CONTEXT MODIFICATION REQUEST message and the CPAC Trigger is set to "CPAC-executed", the gNB-DU shall, if supported, consider that, for the included *PSCell ID* IE corresponding to the selected PSCell, the UE has successfully executed the CPAC preparation. The gNB-DU shall apply the corresponding *CellGroupConfig* IE for MCG configuration.

If the *Conditional Intra-DU Mobility Information* IE is included in the UE CONTEXT MODIFICATION REQUEST message and the CHO Trigger is set to "CHO-initiation", the gNB-DU shall consider that the request concerns a conditional handover or conditional PSCell addition or conditional PSCell change for the included *SpCell ID* IE and shall include it as the *Requested Target Cell ID* IE in the UE CONTEXT MODIFICATION RESPONSE message. The gNB-DU shall regard it as a reconfiguration with sync as defined in TS 38.331 [8].

If the *Conditional Intra-DU Mobility Information* IE is included in the UE CONTEXT MODIFICATION REQUEST message and the CHO Trigger is set to "CHO-replace", the gNB-DU shall replace the existing prepared conditional mobility identified by the *gNB-DU UE F1AP ID* IE and the *SpCell ID* IE.

If the *Conditional Intra-DU Mobility Information* IE is included in the UE CONTEXT MODIFICATION REQUEST message and the CHO Trigger is set to "CHO-cancel", the gNB-DU shall consider that the gNB-CU is about to remove any reference to, and release any resources previously reserved for the candidate cells associated to the UE-associated signalling identified by the *gNB-CU UE F1AP ID* IE and the *gNB-DU UE F1AP ID* IE. If the *Candidate Cells To Be Cancelled List* IE is also included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall consider that only the resources reserved for the cells identified by the included NR CGIs are about to be released by the gNB-CU.

If the *Transmission Stop Indicator* IE is included within the *DRB to Be Modified Item* IE in the UE CONTEXT MODIFICATION REQUEST message and set to “true”, the gNB-DU shall, if supported, stop the data transmission for the DRB. It is up to gNB-DU implementation when to stop the UE scheduling for that DRB.

If the *SCG Indicator* IE is contained in the UE CONTEXT MODIFICATION REQUEST message and it is set to “released”, the gNB-DU shall, if supported, deduce that an SCG is removed.

If the *Estimated Arrival Probability* IE is contained in the *Conditional Intra-DU Mobility Information* IE included in the UE CONTEXT MODIFICATION REQUEST message, then the gNB-DU may use the information to allocate necessary resources for the UE.

If the *Location Measurement Information* IE is included in the *CU to DU RRC Information* IE in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, take it into account when configuring measurement gaps for the UE.

If the *F1-C Transfer Path NRDC* IE is included in UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, take it into account.

If for a given E-RAB for EN-DC operation the *ENB DL Transport Layer Address* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, use it as part of its ACL functionality configuration actions, if such ACL functionality is deployed.

If for a given Qos flow for NG-RAN operation the *PDCP Terminating Node DL Transport Layer Address* IE is included in the UE CONTEXT MODIFICATION REQUEST message, then the gNB-DU shall, if supported, use it as part of its ACL functionality configuration actions, if such ACL functionality is deployed.

If the gNB-DU is an IAB-DU, and if the *IAB Conditional* *RRC Message Delivery Indication* IE is included in the UE CONTEXT MODIFICATION REQUEST message together with the *RRC-Container* IE, and if its value is set to “true”, and if the *RRC-Container* IE is for a child IAB-MT of the gNB-DU, the gNB-DU shall, if supported, withhold the RRC message until one of the following conditions is met:

If the gNB-DU belongs to a migrating IAB-node, whose co-located IAB-MT has successfully performed the random-access procedure to the target parent node, and if the migrating IAB-node has one or more routing entries for the target path.

The gNB-DU receives a subsequent F1AP message including an *RRC-Container IE* for the same child node.

If the gNB-DU belongs to a descendant node of the migrating IAB-node, whose co-located IAB-MT has received an *RRCReconfiguration* message including the intra-donor migration configurations, e.g., new TNL address(es) and the new default UL BAP routing ID.

If the gNB-DU belongs to a migrating IAB-node, whose co-located IAB-MT has successfully performed RLF recovery after handover failure, and if the migrating IAB-node has one or more routing entries for the target path.

If the *MDT Polluted Measurement Indicator* IE is included in the UE CONTEXT MODIFICATION REQUEST, the gNB-DU shall take this information into account as specified in TS 38.401 [4].

If the *SCG Activation Request* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU may use it to configure SCG resources as specified in TS 37.340 [7] , and if supported, shall include the *SCG Activation Status* IE in the UE CONTEXT MODIFICATION RESPONSE message.

If the *CG-SDT Query Indication* IE is included in the UE CONTEXT MODIFICATION REQUEST message and set to ‘true’, the gNB-DU shall, if supported, provide the CG-SDT related resource configuration for the bearers indicated as SDT bearers in the *SDT-MAC-PHY-CG-Config* IE within the *DU to CU RRC Information* IE contained in the UE CONTEXT MODIFICATION RESPONSE message to the gNB-CU. If the *SDT-MAC-PHY-CG-Config* IE is also included in the UE CONTEXT MODIFICATION REQUEST message within the *CU to DU RRC Information* IE, the gNB-DU may provide the delta signalling version of the *SDT-MAC-PHY-CG-Config* IE within the *DU to CU RRC Information* IE contained in the UE CONTEXT MODIFICATION RESPONSE message to the gNB-CU.

If the *5G ProSe Authorized* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, update its 5G ProSe services authorization information for the UE accordingly. If the *5G ProSe Authorized* IE includes one or more IEs set to "not authorized", the gNB-DU shall, if supported, initiate actions to ensure that the UE is no longer accessing the relevant service(s).

If the *SDT Bearer Configuration Query Indication* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, provide the RLC bearer configuration in the *SDT Bearer Configuration Info* IE in the UE CONTEXT MODIFICATION RESPONSE message for each bearer indicated as SDT bearer.

If the *5G ProSe UE PC5 Aggregate Maximum Bit Rate* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported:

- replace the previously provided 5G ProSe UE PC5 Aggregate Maximum Bit Rate, if available in the UE context, with the received value;

- use the received value for the concerned UE’s sidelink communication in network scheduled mode for 5G ProSe services.

If the *5G ProSe PC5 Link Aggregate Bit Rate* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported:

- replace the previously provided 5G ProSe PC5 Link Aggregate Bit Rate, if available in the UE context, with the received value;

- use the received value for the concerned UE’s sidelink communication in network scheduled mode for 5G ProSe services as defined in TS 23.304 [44].

If the *Updated Remote UE Local ID* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, replace the previously provided Remote UE Local ID, if available in the UE context, with the received value.

If the *Uu RLC Channel To Be Setup List* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, act as specified in TS 38.401 [4].

If the *Uu RLC Channel To Be Modified List* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, act as specified in TS 38.401 [4].

If the *Uu RLC Channel To Be Release List* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, release the Uu Relay RLC channels in the list.

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

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

If the *PC5 RLC Channel To Be Release List* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, release the PC5 Relay RLC channels in the list. If the F1AP-IDs are associated with a U2N Relay UE, the *PC5 RLC Channel to be Released Item IEs* IE shall include the *Remote UE Local ID* IE.

If the *Path Switch Configuration* IE is contained in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, use it to configure the path switch from direct path to indirect path as specified in TS 38.401 [4].

If the *MUSIM-GapConfig* IE is contained in the *CU to DU RRC Information* IE included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, decide to use this IE for MUSIM gap configuration or select another one based on the received *UEAssistanceInformation* IE. If gNB-DU selects a different MUSIM gap configuration from received *UEAssistanceInformation* IE, then it shall include the selected MUSIM gap information to the gNB-CU in the *MUSIM-GapConfig* IE of the *DU to CU RRC Information* IE that is included in the UE CONTEXT MODIFICATION RESPONSE message.

If *MUSIM-GapConfig* IE is not contained in the *CU to DU RRC Information* IE, then gNB-DU shall, if supported, send the selected MUSIM gap configuration based on the received *UEAssistanceInformation* IE, to the gNB-CU in the *MUSIM-GapConfig* IE of the *DU to CU RRC Information* IE that is included in the UE CONTEXT MODIFICATION RESPONSE message. When MUSIM-GapConfig IE is received, the gNB-CU should use this value.

If the *gNB-DU UE Slice Maximum Bit Rate List* IE is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported,

- store and replace the previously provided gNB-DU UE Slice Maximum Bit Rate List, if any, with the new received *gNB-DU UE Slice Maximum Bit Rate List*;

- use the received *gNB-DU UE Slice Maximum Bit Rate List* for the uplink traffic policing for each concerned slice as specified in TS 23.501 [21].

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 at Modify List* 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 shall include the *Multicast F1-U Context Reference CU* IE, if available, in the UE CONTEXT MODIFICATION RESPONSE message. And if the *MBS PTP Retransmission Tunnel Required* IE is included in the *UE Multicast MRB to Be Setup at Modify 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 at Modify 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].

If the *InterFrequencyConfig-NoGap* IE is included in the *DU to CU RRC Information* IE contained in the UE CONTEXT MODIFICATION RESPONSE message, the gNB-CU shall, if supported, use it as described in TS 38.331 [8].

If the *ul-GapFR2-Config* IE is contained in the *DU to CU RRC Information* IE that is included in the UE CONTEXT MODIFICATION RESPONSE message, the gNB-CU shall, if supported, use it as described in TS 38.331 [8].

If the *TwoPHRModeMCG* IE or the *TwoPHRModeSCG* IE is contained in the *DU to CU RRC Information* IE that is included in the UE CONTEXT MODIFICATION RESPONSE message, the gNB-CU shall, if supported, use this value as described in TS 38.331 [8].

If the *MBSInterestIndication* IE is included in the *CU to DU RRC Information* IE in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, take it into account when configuring resources for the UE.

If the *ncd-SSB-RedCapInitialBWP-SDT* IE is contained in the *DU to CU RRC Information* IE that is included in the UE CONTEXT MODIFICATION RESPONSE message, the gNB-CU shall, if supported, use it as described in TS 38.331 [8].

If the *Direct Path Addition* IE is contained in the *Path Addition Information* IE which is included in the UE CONTEXT MODIFICATION REQUEST message, the gNB-DU shall, if supported, consider that the request concerns the direct path addition for the included *SpCell ID* IE as specified in TS 38.401 [4] and regard it as a reconfiguration with sync as defined in TS 38.331 [8]. If the *Indirect Path Addition* IE is contained in the *Path Addition Information* IE, the gNB-DU shall, if supported, consider that the request concerns the indirect path addition for the MP Remote UE using PC5 link and use it as specified in TS 38.401 [4]. If the *N3C* *Indirect Path Addition* IE is contained in the *Path Addition Information* IE, the gNB-DU shall, if supported, consider that the request concerns the indirect path addition for the MP Remote UE using N3C and use it as specified in TS 38.401 [4].

#### 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.

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

# 9 Elements for F1AP Communication

## 9.2 Message Functional Definition and Content

### 9.2.2 UE Context Management messages

#### 9.2.2.1 UE CONTEXT SETUP REQUEST

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

Direction: gNB-CU → gNB-DU.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| --- | --- | --- | --- | --- | --- | --- |
| Message Type | M |  | 9.3.1.1 |  | YES | reject |
| gNB-CU UE F1AP ID | M |  | 9.3.1.4 |  | YES | reject |
| gNB-DU UE F1AP ID | O |  | 9.3.1.5 |  | YES | ignore |
| SpCell ID | M |  | NR CGI 9.3.1.12 | Special Cell as defined in TS 38.321 [16]. For handover case, this IE is considered as target cell. | YES | reject |
| ServCellIndex | M |  | INTEGER (0..31,...) |  | YES | reject |
| SpCell UL Configured | O |  | Cell UL Configured  9.3.1.33 |  | YES | ignore |
| CU to DU RRC Information | M |  | 9.3.1.25 |  | YES | reject |
| **Candidate SpCell List** |  | *0..1* |  |  | YES | ignore |
| **>Candidate SpCell Item IEs** |  | *1 .. <maxnoofCandidateSpCells>* |  |  | EACH | ignore |
| >>Candidate SpCell ID | M |  | NR CGI 9.3.1.12 | Special Cell as defined in TS 38.321 [16] | - |  |
| DRX Cycle | O |  | DRX Cycle  9.3.1.24 |  | YES | ignore |
| Resource Coordination Transfer Container | O |  | OCTET STRING | Includes the *MeNB Resource Coordination Information* IE as defined in subclause 9.2.116 of TS 36.423 [9] for EN-DC case or *MR-DC Resource Coordination Information* IE as defined in TS 38.423 [28] for NGEN-DC and NE-DC cases. | YES | ignore |
| **SCell To Be Setup List** |  | *0..1* |  |  | YES | ignore |
| **>SCell to Be Setup Item IEs** |  | *1.. <maxnoofSCells>* |  |  | EACH | ignore |
| >>SCell ID | M |  | NR CGI 9.3.1.12 | SCell Identifier in gNB | - |  |
| >>SCellIndex | M |  | INTEGER (1..31) |  | - |  |
| >>SCell UL Configured | O |  | Cell UL Configured  9.3.1.33 |  | - |  |
| >>servingCellMO | O |  | INTEGER (1..64) |  | YES | ignore |
| **SRB to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>SRB to Be Setup Item IEs** |  | *1 .. <maxnoofSRBs>* |  |  | EACH | reject |
| >>SRB ID | M |  | 9.3.1.7 |  | - |  |
| >>Duplication Indication | O |  | ENUMERATED (true, ..., false) | If included, it should be set to true.  This IE is ignored if the *Additional Duplication Indication* IE is present. | - |  |
| >>Additional Duplication Indication | O |  | ENUMERATED (three, four, …) |  | YES | ignore |
| >>SDT RLC Bearer Configuration | O |  | OCTET STRING | Includes the *RLC-BearerConfig* IE defined in subclause 6.3.2 of TS 38.331 [8] | YES | ignore |
| >>SRB Mapping Info | O |  | Uu RLC Channel ID 9.3.1.266 | This IE contains the mapped Uu Relay RLC CH ID for the SRB | YES | ignore |
| **DRB to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>DRB to Be Setup Item IEs** |  | *1 .. <maxnoofDRBs>* |  |  | EACH | reject |
| >>DRB ID | M |  | 9.3.1.8 |  | - |  |
| >>CHOICE QoS Information | M |  |  |  | - |  |
| *>>>E-UTRAN QoS* |  |  |  |  |  |  |
| >>>>E-UTRAN QoS | M |  | 9.3.1.19 | Shall be used for EN-DC case to convey E-RAB Level QoS Parameters | - |  |
| *>>>DRB Information* |  |  |  |  |  |  |
| **>>>>DRB Information** |  | *1* |  | Shall be used for NG-RAN cases | YES | ignore |
| >>>>>DRB QoS | M |  | 9.3.1.45 |  | - |  |
| >>>>S-NSSAI | M |  | 9.3.1.38 |  | - |  |
| >>>>>Notification Control | O |  | 9.3.1.56 |  | - |  |
| **>>>>>Flows Mapped to DRB Item** |  | *1 .. <maxnoofQoSFlows>* |  |  | - |  |
| >>>>>>QoS Flow Identifier | M |  | 9.3.1.63 |  | - |  |
| >>>>>>QoS Flow Level QoS Parameters | M |  | 9.3.1.45 |  | - |  |
| >>>>>>QoS Flow Mapping Indication | O |  | 9.3.1.72 |  | YES | ignore |
| >>>>>>TSC Traffic Characteristics | O |  | 9.3.1.141 | Traffic pattern information associated with the QFI. Details in TS 23.501 [21]. | YES | ignore |
| **>>UL UP TNL Information to be setup List** |  | *1* |  |  | - |  |
| **>>>UL UP TNL Information to Be Setup Item IEs** |  | *1 .. <maxnoofULUPTNLInformation>* |  |  | - |  |
| >>>>UL UP TNL Information | M |  | UP Transport Layer Information  9.3.2.1 | gNB-CU endpoint of the F1 transport bearer. For delivery of UL PDUs. | - |  |
| >>>>BH Information | O |  | 9.3.1.114 |  | YES | ignore |
| >>>>DRB Mapping Info | O |  | Uu RLC Channel ID 9.3.1.266 | This IE contains the mapped Uu Relay RLC CH ID of the DL tunnel corresponding to such UL tunnel | YES | ignore |
| >>RLC Mode | M |  | 9.3.1.27 |  | - |  |
| >>UL Configuration | O |  | UL Configuraiton  9.3.1.31 | Information about UL usage in gNB-DU. | - |  |
| >>Duplication Activation | O |  | 9.3.1.36 | Information on the initial state of CA based UL PDCP duplication.  This IE is ignored if the *RLC Duplication Information* IE is present. | - |  |
| >>DC Based Duplication Configured | O |  | ENUMERATED (true, ..., false) | Indication on whether DC based PDCP duplication is configured or not. If included, it should be set to true. | YES | reject |
| >>DC Based Duplication Activation | O |  | Duplication Activation  9.3.1.36 | Information on the initial state of DC basedUL PDCP duplication.  This IE is ignored if the *RLC Duplication Information* IE is present. | YES | reject |
| >>DL PDCP SN length | M |  | ENUMERATED (12bits, 18bits, ...) |  | YES | ignore |
| >>UL PDCP SN length | O |  | ENUMERATED (12bits, 18bits, ...) |  | YES | ignore |
| **>>Additional PDCP Duplication TNL List** |  | *0..1* |  |  | YES | ignore |
| **>>>Additional PDCP Duplication TNL Items** |  | *1 .. <maxnoofAdditionalPDCPDuplicationTNL>* |  |  | EACH | ignore |
| >>>>Additional PDCP Duplication UP TNL Information | M |  | UP Transport Layer Information  9.3.2.1 | gNB-CU endpoint of the F1 transport bearer. For delivery of UL PDUs. | - |  |
| >>>>BH Information | O |  | 9.3.1.114 |  | YES | ignore |
| >>RLC Duplication Information | O |  | 9.3.1.146 |  | YES | ignore |
| >>SDT RLC Bearer Configuration | O |  | OCTET STRING | RLC-BearerConfig IE defined in subclause 6.3.2 of TS 38.331 [8] | YES | ignore |
| Inactivity Monitoring Request | O |  | ENUMERATED (true, ...) |  | YES | reject |
| RAT-Frequency Priority Information | O |  | 9.3.1.34 |  | YES | reject |
| RRC-Container | O |  | 9.3.1.6 | Includes the *DL-DCCH-Message* message as defined in subclause 6.2 of TS 38.331 [8], encapsulated in a PDCP PDU. | YES | ignore |
| Masked IMEISV | O |  | 9.3.1.55 |  | YES | ignore |
| Serving PLMN | O |  | PLMN ID  9.3.1.14 | Indicates the PLMN serving the UE. | YES | ignore |
| gNB-DU UE Aggregate Maximum Bit Rate Uplink | C-ifDRBSetup |  | Bit Rate 9.3.1.22 | The gNB-DU UE Aggregate Maximum Bit Rate Uplink is to be enforced by the gNB-DU. | YES | ignore |
| RRC Delivery Status Request | O |  | ENUMERATED (true, …) | Indicates whether RRC DELIVERY REPORT procedure is requested for the RRC message. | YES | ignore |
| Resource Coordination Transfer Information | O |  | 9.3.1.73 |  | YES | ignore |
| servingCellMO | O |  | INTEGER (1..64, ...) |  | YES | ignore |
| New gNB-CU UE F1AP ID | O |  | gNB-CU UE F1AP ID  9.3.1.4 |  | YES | reject |
| RAN UE ID | O |  | OCTET STRING (SIZE (8)) |  | YES | ignore |
| Trace Activation | O |  | 9.3.1.88 |  | YES | ignore |
| Additional RRM Policy Index | O |  | 9.3.1.90 |  | YES | ignore |
| **BH RLC Channel to be Setup List** |  | *0..1* |  |  | YES | reject |
| **>BH RLC Channel to be Setup Item IEs** |  | *1 .. <maxnoofBHRLCChannels>* |  |  | EACH | reject |
| >>BH RLC CH ID | M |  | 9.3.1.113 |  | - |  |
| >>CHOICE *BH QoS Information* | M |  |  |  |  |  |
| *>>>BH RLC CH QoS* |  |  |  |  |  |  |
| >>>>BH RLC CH QoS | M |  | QoS Flow Level QoS Parameters  9.3.1.45 | Shall be used for SA case. |  |  |
| *>>>E-UTRAN BH RLC CH QoS* |  |  |  |  |  |  |
| >>>>E-UTRAN BH RLC CH QoS | M |  | E-UTRAN QoS  9.3.1.19 | Shall be used for EN-DC case. |  |  |
| *>>>Control Plane Traffic Type* |  |  |  |  |  |  |
| >>>>Control Plane Traffic Type | M |  | 9.3.1.115 |  |  |  |
| >>RLC Mode | M |  | 9.3.1.27 |  | - |  |
| >>BAP Control PDU Channel | O |  | ENUMERATED (true, …) |  | - |  |
| >>Traffic Mapping Information | O |  | 9.3.1.95 |  | - |  |
| Configured BAP Address | O |  | 9.3.1.111 | The BAP address configured for the corresponding child IAB-node. | YES | reject |
| NR V2X Services Authorized | O |  | 9.3.1.116 |  | YES | ignore |
| LTE V2X Services Authorized | O |  | 9.3.1.117 |  | YES | ignore |
| NR UE Sidelink Aggregate Maximum Bit Rate | O |  | 9.3.1.119 | This IE applies only if the UE is authorized for NR V2X services. | YES | ignore |
| LTE UE Sidelink Aggregate Maximum Bit Rate | O |  | 9.3.1.118 | This IE applies only if the UE is authorized for LTE V2X services. | YES | ignore |
| PC5 Link Aggregate Bit Rate | O |  | Bit Rate  9.3.1.22 | Only applies for non-GBR and unicast QoS Flows. | YES | ignore |
| **SL DRB to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>SL DRB to Be Setup Item IEs** |  | *1 .. <maxnoofSLDRBs>* |  |  | EACH | reject |
| >>SL DRB ID | M |  | 9.3.1.120 |  | - |  |
| **>>SL DRB Information** |  | *1* |  |  | YES | ignore |
| >>>SL DRB QoS | M |  | PC5 QoS Parameters  9.3.1.122 |  | - |  |
| **>>>Flows Mapped to SL DRB Item** |  | *1 .. <maxnoofPC5QoSFlows>* |  |  | - |  |
| >>>>PC5 QoS Flow Identifier |  |  | 9.3.1.121 |  | - |  |
| >>RLC mode | M |  | 9.3.1.27 |  | - |  |
| **Conditional Inter-DU Mobility Information** | O |  |  |  | YES | reject |
| >CHO Trigger | M |  | ENUMERATED (CHO-initiation, CHO-replace, …) |  | - | - |
| >Target gNB-DU UE F1AP ID | C-ifCHOmod |  | 9.3.1.5 | Allocated at the target gNB-DU | - | - |
| >Estimated Arrival Probability | O |  | INTEGER (1..100) |  | YES | ignore |
| Management Based MDT PLMN List | O |  | MDT PLMN List  9.3.1.151 |  | YES | ignore |
| Serving NID | O |  | 9.3.1.155 |  | YES | reject |
| F1-C Transfer Path | O |  | 9.3.1.207 |  | YES | reject |
| F1-C Transfer Path NRDC | O |  | 9.3.1.228 |  | YES | reject |
| MDT Polluted Measurement Indicator | O |  | ENUMERATED (IDC,no-IDC, …) | Indication on whether MDT Measurement affect (e.g. IDC) is undertaken or not. | YES | ignore |
| SCG Activation Request | O |  | 9.3.1.233 |  | YES | ignore |
| Old CG-SDT Session Info | O |  | CG-SDT Session Info 9.3.1.261 |  | YES | ignore |
| 5G ProSe Authorized | O |  | 9.3.1.268 |  | YES | ignore |
| 5G ProSe UE PC5 Aggregate Maximum Bit Rate | O |  | NR UE Sidelink Aggregate Maximum Bit Rate  9.3.1.119 | This IE applies only if the UE is authorized for 5G ProSe services. | YES | ignore |
| 5G ProSe PC5 Link Aggregate Bit Rate | O |  | Bit Rate  9.3.1.22 | This IE applies only if the UE is authorized for 5G ProSe services, and only applies for non-GBR and unicast QoS Flows. | YES | ignore |
| **Uu RLC Channel to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>Uu RLC Channel to be Setup Item IEs** |  | *1 .. <maxnoofUuRLCChannels>* |  |  | - |  |
| >>Uu RLC Channel ID | M |  | 9.3.1.266 |  | - |  |
| >>CHOICE *Uu RLC Channel QoS Information* | M |  |  |  | - |  |
| *>>>Uu RLC Channel QoS* |  |  |  |  |  |  |
| >>>>Uu RLC Channel QoS | M |  | QoS Flow Level QoS Parameters  9.3.1.45 |  | - |  |
| *>>>Uu Control Plane Traffic Type* |  |  |  |  |  |  |
| >>>>Uu Control Plane Traffic Type | M |  | ENUMERATED(SRB0, SRB1, SRB2, …) | This IE indicates the type of SRB conveyed via the Uu Relay RLC Channel. | - |  |
| >>RLC Mode | M |  | 9.3.1.27 |  | - |  |
| **PC5 RLC Channel to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>PC5 RLC Channel to be Setup Item IEs** |  | *1 .. <maxnoofPC5RLCChannels>* |  |  | - |  |
| >>PC5 RLC Channel ID | M |  | 9.3.1.265 |  | - |  |
| >>Remote UE Local ID | O |  | 9.3.1.267 | This IE is not used in this version of the specification. |  |  |
| >>CHOICE *PC5 RLC Channel QoS Information* | M |  |  |  | - |  |
| *>>>PC5 RLC Channel QoS* |  |  |  |  |  |  |
| >>>>PC5 RLC Channel QoS | M |  | QoS Flow Level QoS Parameters  9.3.1.45 |  | - |  |
| *>>>PC5 Control Plane Traffic Type* |  |  |  |  |  |  |
| >>>>PC5 Control Plane Traffic Type | M |  | ENUMERATED(SRB1, SRB2, …) | This IE indicates the type of SRB conveyed via the PC5 Relay RLC Channel. | - |  |
| >>RLC Mode | M |  | 9.3.1.27 |  | - |  |
| Path Switch Configuration | O |  | 9.3.1.263 |  | YES | ignore |
| gNB-DU UE Slice Maximum Bit Rate List | O |  | 9.3.1.271 | The Slice Maximum Bit Rate List is the maximum aggregate UL bit rate per slice, to be enforced by the gNB-DU, if feasible. This IE is ignored if the *DRB to Be Setup List* IE is not present. | YES | ignore |
| Multicast MBS Session Setup List | O |  | Multicast MBS Session List 9.3.1.272 | The list of MBS Session ID that UE has joined. | YES | reject |
| **UE Multicast MRB to Be Setup List** |  | *0..1* |  |  | YES | reject |
| >UE Multicast MRB to Be Setup Item IEs |  | *1 .. <maxnoofMRBsforUE>* |  |  | EACH | reject |
| >>MRB ID | M |  | 9.3.1.224 | MRB ID for the UE. | - |  |
| >>MBS PTP Retransmission Tunnel Required | O |  | 9.3.2.10 |  | - |  |
| >>MBS PTP Forwarding Tunnel Required Information | O |  | MRB Progress Information 9.3.2.12 |  | - |  |
| >>Source MRB ID | O |  | 9.3.1.224  MRB ID | In case of inter-DU handover, indicates the MRB ID provided to the UE in the source cell. | - | ignore |
| **ServingCellMO List** |  | *0..1* |  | For NCD-SSBs | YES | ignore |
| **>ServingCellMO Item IEs** |  | *1 .. <maxnoofServingCellMOs>* |  |  | EACH | ignore |
| >>servingCellMO | M |  | INTEGER (1..64) |  | - |  |
| >>SSB frequency | M |  | INTEGER (0..3279165) | ARFCN | - |  |
| Path Addition Information | O |  | 9.3.1.x1 | This IE contains either the *Indirect Path Addition* IE or the *N3C Indirect Path Addition* IE*.* | YES | ignore |

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

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

#### 9.2.2.2 UE CONTEXT SETUP RESPONSE

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

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

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

#### 9.2.2.7 UE CONTEXT MODIFICATION REQUEST

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

Direction: gNB-CU → gNB-DU

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| --- | --- | --- | --- | --- | --- | --- |
| Message Type | M |  | 9.3.1.1 |  | YES | reject |
| gNB-CU UE F1AP ID | M |  | 9.3.1.4 |  | YES | reject |
| gNB-DU UE F1AP ID | M |  | 9.3.1.5 |  | YES | reject |
| SpCell ID | O |  | NR CGI 9.3.1.12 | Special Cell as defined in TS 38.321 [16]. For handover case, this IE is considered as target cell. | YES | ignore |
| ServCellIndex | O |  | INTEGER (0..31, ...) |  | YES | reject |
| SpCell UL Configured | O |  | Cell UL Configured  9.3.1.33 |  | YES | ignore |
| DRX Cycle | O |  | DRX Cycle  9.3.1.24 |  | YES | ignore |
| CU to DU RRC Information | O |  | 9.3.1.25 |  | YES | reject |
| Transmission Action Indicator | O |  | 9.3.1.11 |  | YES | ignore |
| Resource Coordination Transfer Container | O |  | OCTET STRING | Includes the *MeNB Resource Coordination Information* IE as defined in subclause 9.2.116 of TS 36.423 [9] for EN-DC case or *MR-DC Resource Coordination Information* IE as defined in TS 38.423 [28] for NGEN-DC and NE-DC cases. | YES | ignore |
| RRC Reconfiguration Complete Indicator | O |  | 9.3.1.30 |  | YES | ignore |
| RRC-Container | O |  | 9.3.1.6 | Includes the *DL-DCCH-Message* message as defined in subclause 6.2 of TS 38.331 [8], encapsulated in a PDCP PDU. | YES | reject |
| **SCell To Be Setup List** |  | *0..1* |  |  | YES | ignore |
| **>SCell to Be Setup Item IEs** |  | *1.. <maxnoofSCells>* |  |  | EACH | ignore |
| >>SCell ID | M |  | NR CGI 9.3.1.12 | SCell Identifier in gNB | - |  |
| >>SCellIndex | M |  | INTEGER (1..31) |  | - |  |
| >>SCell UL Configured | O |  | Cell UL Configured  9.3.1.33 |  | - |  |
| >>servingCellMO | O |  | INTEGER (1..64) |  | YES | ignore |
| **SCell To Be Removed List** |  | *0..1* |  |  | YES | ignore |
| **>SCell to Be Removed Item IEs** |  | *1 .. <maxnoofSCells>* |  |  | EACH | ignore |
| >>SCell ID | M |  | NR CGI 9.3.1.12 | SCell Identifier in gNB | - |  |
| **SRB to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>SRB to Be Setup Item IEs** |  | *1..<maxnoofSRBs>* |  |  | EACH | reject |
| >>SRB ID | M |  | 9.3.1.7 |  | - |  |
| >>Duplication Indication | O |  | ENUMERATED (true, ..., false) | This IE is ignored if the *Additional Duplication Indication* IE is present. | - |  |
| >>Additional Duplication Indication | O |  | ENUMERATED (three, four, …) |  | YES | ignore |
| >>SRB Mapping Info | O |  | Uu RLC Channel ID 9.3.1.266 | This IE contains the mapped Uu Relay RLC CH ID for the SRB | YES | ignore |
| >>SDT Indicator Setup | O |  | ENUMERATED (true, …) | Indicates SDT SRB. | YES | reject |
| **DRB to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>DRB to Be Setup Item IEs** |  | *1 .. <maxnoofDRBs>* |  |  | EACH | reject |
| >>DRB ID | M |  | 9.3.1.8 |  | - |  |
| >>CHOICE QoS Information | M |  |  |  | - |  |
| *>>>E-UTRAN QoS* |  |  |  |  |  |  |
| >>>>E-UTRAN QoS | M |  | 9.3.1.19 | Shall be used for EN-DC case to convey E-RAB Level QoS Parameters |  |  |
| *>>>DRB Information* |  |  |  |  |  |  |
| **>>>>DRB Information** |  | *1* |  | Shall be used for NG-RAN cases | YES | ignore |
| >>>>>DRB QoS | M |  | 9.3.1.45 |  | - |  |
| >>>>>S-NSSAI | M |  | 9.3.1.38 |  | - |  |
| >>>>>Notification Control | O |  | 9.3.1.56 |  | - |  |
| **>>>>>Flows Mapped to DRB Item** |  | *1 .. <maxnoofQoSFlows>* |  |  | - |  |
| >>>>>>QoS Flow Identifier | M |  | 9.3.1.63 |  | - |  |
| >>>>>>QoS Flow Level QoS Parameters | M |  | 9.3.1.45 |  | - |  |
| >>>>>>QoS Flow Mapping Indication | O |  | 9.3.1.72 |  | YES | ignore |
| >>>>>>TSC Traffic Characteristics | O |  | 9.3.1.141 | Traffic pattern information associated with the QFI. Details in TS 23.501 [21]. | YES | ignore |
| **>>UL UP TNL Information to be setup List** |  | *1* |  |  | - |  |
| **>>>UL UP TNL Information to Be Setup Item IEs** |  | *1 .. <maxnoofULUPTNLInformation>* |  |  | - |  |
| >>>>UL UP TNL Information | M |  | UP Transport Layer Information  9.3.2.1 | gNB-CU endpoint of the F1 transport bearer. For delivery of UL PDUs. | - |  |
| >>>>BH Information | O |  | 9.3.1.114 |  | YES | ignore |
| >>>>DRB Mapping Info | O |  | Uu RLC Channel ID 9.3.1.266 | This IE contains the mapped Uu Relay RLC CH ID of the DL tunnel corresponding to such UL tunnel | YES | ignore |
| >>RLC Mode | M |  | 9.3.1.27 |  | - |  |
| >>UL Configuration | O |  | UL Configuration  9.3.1.31 | Information about UL usage in gNB-DU. | - |  |
| >>Duplication Activation | O |  | 9.3.1.36 | Information on the initial state of CA based UL PDCP duplication.  This IE is ignored if the *RLC Duplication Information* IE is present. | - |  |
| >>DC Based Duplication Configured | O |  | ENUMERATED (true, ..., false) | Indication on whether DC based PDCP duplication is configured or not. If included, it should be set to true. | YES | reject |
| >>DC Based Duplication Activation | O |  | Duplication Activation  9.3.1.36 | Information on the initial state of DC based UL PDCP duplication.  This IE is ignored if the *RLC Duplication Information* IE is present. | YES | reject |
| >>DL PDCP SN length | O |  | ENUMERATED (12bits, 18bits, ...) |  | YES | ignore |
| >>UL PDCP SN length | O |  | ENUMERATED (12bits, 18bits, ...) |  | YES | ignore |
| **>>Additional PDCP Duplication TNL List** |  | *0..1* |  |  | YES | ignore |
| **>>>Additional PDCP Duplication TNL Items** |  | *1 .. < maxnoofAdditionalPDCPDuplicationTNL>* |  |  | EACH | ignore |
| >>>>Additional PDCP Duplication UP TNL Information | M |  | UP Transport Layer Information  9.3.2.1 | gNB-CU endpoint of the F1 transport bearer. For delivery of UL PDUs. | - |  |
| >>>>BH Information | O |  | 9.3.1.114 |  | YES | ignore |
| >>RLC Duplication Information | O |  | 9.3.1.146 |  | YES | ignore |
| >>SDT Indicator Setup | O |  | ENUMERATED (true, …) | Indicates SDT DRB. | YES | reject |
| **DRB to Be Modified List** |  | *0..1* |  |  | YES | reject |
| **>DRB to Be Modified Item IEs** |  | *1 .. <maxnoofDRBs>* |  |  | EACH | reject |
| >>DRB ID | M |  | 9.3.1.8 |  | - |  |
| >>CHOICE *QoS Information* | O |  |  |  | - |  |
| *>>>E-UTRAN QoS* |  |  |  |  |  |  |
| >>>E-UTRAN QoS | M |  | 9.3.1.19 | Used for EN-DC case to convey E-RAB Level QoS Parameters | - |  |
| *>>>DRB Information* |  |  |  |  |  |  |
| **>>>>DRB Information** |  | *1* |  | Used for NG-RAN cases | YES | ignore |
| >>>>>DRB QoS | M |  | 9.3.1.45 |  | - |  |
| >>>>>S-NSSAI | M |  | 9.3.1.38 |  | - |  |
| >>>>>Notification Control | O |  | 9.3.1.56 |  | - |  |
| **>>>>>Flows Mapped to DRB Item** |  | *1 .. <maxnoofQoSFlows>* |  |  | - |  |
| >>>>>>QoS Flow Identifier | M |  | 9.3.1.63 |  | - |  |
| >>>>>>QoS Flow Level QoS Parameters | M |  | 9.3.1.45 |  | - |  |
| >>>>>>QoS Flow Mapping Indication | O |  | 9.3.1.72 |  | YES | ignore |
| >>>>>>TSC Traffic Characteristics | O |  | 9.3.1.141 | Traffic pattern information associated with the QFI. Details in TS 23.501 [21]. | YES | ignore |
| **>>UL UP TNL Information to be setup List** |  | *1* |  |  | - |  |
| **>>>UL UP TNL Information to Be Setup Item IEs** |  | *1 .. <maxnoofULUPTNLInformation>* |  |  | - |  |
| >>>>UL UP TNL Information | M |  | UP Transport Layer Information  9.3.2.1 | gNB-CU endpoint of the F1 transport bearer. For delivery of UL PDUs. | - |  |
| >>>>BH Information | O |  | 9.3.1.114 |  | YES | ignore |
| >>>>DRB Mapping Info | O |  | Uu RLC Channel ID 9.3.1.266 |  | YES | ignore |
| >>UL Configuration | O |  | UL Configuration  9.3.1.31 | Information about UL usage in gNB-DU. | - |  |
| >>DL PDCP SN length | O |  | ENUMERATED(12bits,18bits , ...) |  | YES | ignore |
| >>UL PDCP SN length | O |  | ENUMERATED (12bits, 18bits, ...) |  | YES | ignore |
| >>Bearer Type Change | O |  | ENUMERATED (true, …) |  | YES | ignore |
| >>RLC Mode | O |  | 9.3.1.27 |  | YES | ignore |
| >>Duplication Activation | O |  | 9.3.1.36 | Information on the initial state of CA based UL PDCP duplication.  This IE is ignored if the *RLC Duplication Information* IE is present. | YES | reject |
| >>DC Based Duplication Configured | O |  | ENUMERATED (true, …, false) | Indication on whether DC based PDCP duplication is configured or not. | YES | reject |
| >>DC Based Duplication Activation | O |  | 9.3.1.36 | Information on the initial state of DC based UL PDCP duplication.  This IE is ignored if the *RLC Duplication Information* IE is present. | YES | reject |
| **>>Additional PDCP Duplication TNL List** |  | *0..1* |  |  | YES | ignore |
| >>>Additional PDCP Duplication TNL Items |  | *1 .. <maxnoofAdditionalPDCPDuplicationTNL>* |  |  | EACH | ignore |
| >>>>Additional PDCP Duplication UP TNL Information | M |  | UP Transport Layer Information  9.3.2.1 | gNB-CU endpoint of the F1 transport bearer. For delivery of UL PDUs. | - |  |
| >>>>BH Information | O |  | 9.3.1.114 |  | YES | ignore |
| >>RLC Duplication Information | O |  | 9.3.1.146 |  | YES | ignore |
| >>Transmission Stop Indicator | O |  | 9.3.1.209 |  | YES | ignore |
| >>SDT Indicator Modify | O |  | ENUMTERATED (true, false, …) | Indicates SDT DRB or not. | YES | reject |
| **SRB To Be Released List** |  | *0..1* |  |  | YES | reject |
| **>SRB To Be Released Item IEs** |  | *1.. <maxnoofSRBs>* |  |  | EACH | reject |
| >>SRB ID | M |  | 9.3.1.7 |  |  |  |
| **DRB to Be Released List** |  | *0..1* |  |  | YES | reject |
| **>DRB to Be Released Item IEs** |  | *1 .. <maxnoofDRBs>* |  |  | EACH | reject |
| >>DRB ID | M |  | 9.3.1.8 |  | - |  |
| Inactivity Monitoring Request | O |  | ENUMERATED (true, ...) |  | YES | reject |
| RAT-Frequency Priority Information | O |  | 9.3.1.34 |  | YES | reject |
| DRX configuration indicator | O |  | ENUMERATED(release,...) |  | YES | ignore |
| RLC Failure Indication | O |  | 9.3.1.66 |  | YES | ignore |
| Uplink TxDirectCurrentList Information | O |  | 9.3.1.67 |  | YES | ignore |
| GNB-DU Configuration Query | O |  | ENUMERATED (true, ...) | Used to request the gNB-DU to provide its configuration. | YES | reject |
| gNB-DU UE Aggregate Maximum Bit Rate Uplink | O |  | Bit Rate 9.3.1.22 | The gNB-DU UE Aggregate Maximum Bit Rate Uplink is to be enforced by the gNB-DU. | YES | ignore |
| Execute Duplication | O |  | ENUMERATED (true, ...) | This IE may be sent only if duplication has been configured for the UE. | YES | ignore |
| RRC Delivery Status Request | O |  | ENUMERATED (true, …) | Indicates whether RRC DELIVERY REPORT procedure is requested for the RRC message. | YES | ignore |
| Resource Coordination Transfer Information | O |  | 9.3.1.73 |  | YES | ignore |
| servingCellMO | O |  | INTEGER (1..64, ...) |  | YES | ignore |
| Need for Gap | O |  | ENUMERATED (true, …) | Indicate gap for SeNB configured measurement is requested.It only applied to NE DC scenario. | Yes | ignore |
| Full Configuration | O |  | ENUMERATED (full, ...) |  | YES | reject |
| Additional RRM Policy Index | O |  | 9.3.1.90 |  | YES | ignore |
| Lower Layer Presence Status Change | O |  | 9.3.1.94 |  | Yes | ignore |
| **BH RLC Channel to be Setup List** |  | *0..1* |  |  | YES | reject |
| **>BH RLC Channel to be Setup Item IEs** |  | *1 .. <maxnoofBHRLCChannels>* |  |  | EACH | reject |
| >>BH RLC CH ID | M |  | 9.3.1.113 |  | - |  |
| >>CHOICE *BH QoS information* | M |  |  |  |  |  |
| *>>>BH RLC CH QoS* |  |  |  |  |  |  |
| >>>>BH RLC CH QoS | M |  | QoS Flow Level QoS Parameters  9.3.1.45 | Shall be used for SA case. |  |  |
| *>>>E-UTRAN BH RLC CH QoS* |  |  |  |  |  |  |
| >>>>E-UTRAN BH RLC CH QoS | M |  | E-UTRAN QoS  9.3.1.19 | Shall be used for EN-DC case. |  |  |
| *>>>Control Plane Traffic Type* |  |  |  |  |  |  |
| >>>>Control Plane Traffic Type | M |  | 9.3.1.115 |  |  |  |
| >>RLC Mode | M |  | 9.3.1.27 |  | - |  |
| >>BAP Control PDU Channel | O |  | ENUMERATED (true, …) |  | - |  |
| >>Traffic Mapping Information | O |  | 9.3.1.95 |  | - |  |
| **BH RLC Channel to be Modified List** |  | *0..1* |  |  | YES | reject |
| **>BH RLC Channel to be Modified Item IEs** |  | *1 .. <maxnoofBHRLCChannels>* |  |  | EACH | reject |
| >>BH RLC CH ID | M |  | 9.3.1.113 |  | - |  |
| >>CHOICE *BH QoS information* | O |  |  |  |  |  |
| *>>>BH RLC CH QoS* |  |  |  |  |  |  |
| >>>>BH RLC CH QoS | M |  | QoS Flow Level QoS Parameters  9.3.1.45 | Shall be used for SA case. |  |  |
| *>>>E-UTRAN BH RLC CH QoS* |  |  |  |  |  |  |
| >>>>E-UTRAN BH RLC CH QoS | M |  | E-UTRAN QoS  9.3.1.19 | Shall be used for EN-DC case. |  |  |
| *>>>Control Plane Traffic Type* |  |  |  |  |  |  |
| >>>>Control Plane Traffic Type | M |  | 9.3.1.115 |  |  |  |
| >>RLC Mode | O |  | 9.3.1.27 |  | - |  |
| >>BAP Control PDU Channel | O |  | ENUMERATED (true, …) |  | - |  |
| >>Traffic Mapping Information | O |  | 9.3.1.95 |  | - |  |
| **BH RLC Channel to be Released List** |  | *0..1* |  |  | YES | reject |
| **>BH RLC Channel to be Released Item IEs** |  | *1 .. <maxnoofBHRLCChannels >* |  |  | EACH | reject |
| >>BH RLC CH ID | M |  | 9.3.1.113 |  | - |  |
| NR V2X Services Authorized | O |  | 9.3.1.116 |  | YES | ignore |
| LTE V2X Services Authorized | O |  | 9.3.1.117 |  | YES | ignore |
| NR UE Sidelink Aggregate Maximum Bit Rate | O |  | 9.3.1.119 | This IE applies only if the UE is authorized for NR V2X services. | YES | ignore |
| LTE UE Sidelink Aggregate Maximum Bit Rate | O |  | 9.3.1.118 | This IE applies only if the UE is authorized for LTE V2X services. | YES | ignore |
| PC5 Link Aggregate Bit Rate | O |  | Bit Rate  9.3.1.22 | Only applies for non-GBR and unicast QoS Flows. | YES | ignore |
| **SL DRB to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>SL DRB to Be Setup Item IEs** |  | *1 .. <maxnoofSLDRBs>* |  |  | EACH | reject |
| >>SL DRB ID | M |  | 9.3.1.120 |  | - |  |
| **>>SL DRB Information** |  | *1* |  |  | YES | ignore |
| >>>SL DRB QoS | M |  | PC5 QoS Parameters  9.3.1.122 |  | - |  |
| **>>>Flows Mapped to SL DRB Item** |  | *1 .. <maxnoofPC5QoSFlows>* |  |  | - |  |
| >>>>PC5 QoS Flow Identifier | M |  | 9.3.1.121 |  | - |  |
| >>RLC mode | O |  | 9.3.1.27 |  | - |  |
| **SL DRB to Be Modified List** |  | *0..1* |  |  | YES | reject |
| **>SL DRB to Be Modified Item IEs** |  | *1 .. <maxnoofSLDRBs>* |  |  | EACH | reject |
| >>SL DRB ID | M |  | 9.3.1.120 |  | - |  |
| **>>SL DRB Information** |  | *1* |  |  | YES | ignore |
| >>>SL DRB QoS | M |  | PC5 QoS Parameters  9.3.1.122 |  | - |  |
| **>>>Flows Mapped to SL DRB Item** |  | *1 .. <maxnoofPC5QoSFlows>* |  |  | - |  |
| >>>>PC5 QoS Flow Identifier | M |  | 9.3.1.121 |  | - |  |
| >>RLC mode | O |  | 9.3.1.27 |  | - |  |
| **SL DRB to Be Released List** |  | *0..1* |  |  | YES | reject |
| **>SL DRB to Be Released Item IEs** |  | *1 .. <maxnoofSLDRBs>* |  |  | EACH | reject |
| >>SL DRB ID | M |  | 9.3.1.120 |  | - |  |
| **Conditional Intra-DU Mobility Information** | O |  |  |  | YES | reject |
| >CHO Trigger | M |  | ENUMERATED (CHO-initiation, CHO-replace, CHO-cancel, …) |  | - | - |
| **>****Candidate Cells To Be Cancelled List** | C-ifCHOcancel | *0 .. <maxnoofCellsinCHO>* |  |  | - | - |
| >>Target Cell ID | M |  | NR CGI 9.3.1.12 |  | - | - |
| >Estimated Arrival Probability | O |  | INTEGER (1..100) |  | YES | ignore |
| F1-C Transfer Path | O |  | 9.3.1.207 |  | YES | reject |
| SCG Indicator | O |  | ENUMERATED(released,...) | This IE is used at the MN in NR-DC and NE-DC and it indicates the release of an SCG | YES | ignore |
| Uplink TxDirectCurrentTwoCarrierList Information | O |  | 9.3.1.283 |  | YES | ignore |
| IAB Conditional RRC Message Delivery Indication | O |  | ENUMERATED (true, …) | Indicates whether the RRC message within should be withheld. This IE is only applicable if the UE is an IAB-MT, and the gNB-DU is an IAB-DU. | YES | reject |
| F1-C Transfer Path NRDC | O |  | 9.3.1.228 | This IE is only applicable if the UE is an IAB-MT. | YES | reject |
| MDT Polluted Measurement Indicator | O |  | ENUMERATED (IDC,no-IDC, …) | Indication on whether MDT Measurement affect (e.g. IDC) is undertaken or not. | YES | ignore |
| SCG Activation Request | O |  | 9.3.1.233 |  | YES | ignore |
| CG-SDT Query Indication | O |  | ENUMERATED (true, ...) |  | YES | ignore |
| 5G ProSe Authorized | O |  | 9.3.1.268 |  | YES | ignore |
| 5G ProSe UE PC5 Aggregate Maximum Bit Rate | O |  | NR UE Sidelink Aggregate Maximum Bit Rate  9.3.1.119 | This IE applies only if the UE is authorized for 5G ProSe services. | YES | ignore |
| 5G ProSe PC5 Link Aggregate Bit Rate | O |  | Bit Rate  9.3.1.22 | This IE applies only if the UE is authorized for 5G ProSe services, and only applies for non-GBR and unicast QoS Flows. | YES | ignore |
| Updated Remote UE Local ID | O |  | Remote UE Local ID 9.3.1.267 | This IE indicates the updated Remote UE Local ID for the U2N Remote UE associated with the F1AP-IDs | YES | ignore |
| **Uu RLC Channel to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>Uu RLC Channel to be Setup Item IEs** |  | *1 .. <maxnoofUuRLCChannels>* |  |  | - |  |
| >>Uu RLC Channel ID | M |  | 9.3.1.266 |  | - |  |
| >>CHOICE *Uu RLC Channel QoS Information* | M |  |  |  | - |  |
| *>>>Uu RLC Channel QoS* |  |  |  |  |  |  |
| >>>>Uu RLC Channel QoS | M |  | QoS Flow Level QoS Parameters  9.3.1.45 |  | - |  |
| *>>>Uu Control Plane Traffic Type* |  |  |  |  |  |  |
| >>>>Uu Control Plane Traffic Type | M |  | ENUMERATED(SRB0, SRB1, SRB2, …) | This IE indicates the type of SRB conveyed via the Uu Relay RLC Channel. | - |  |
| >>RLC Mode | M |  | 9.3.1.27 |  | - |  |
| **Uu RLC Channel to Be Modified List** |  | *0..1* |  |  | YES | reject |
| **>Uu RLC Channel to be Modified Item IEs** |  | *1 .. <maxnoofUuRLCChannels>* |  |  | - |  |
| >>Uu RLC Channel ID | M |  | 9.3.1.266 |  | - |  |
| >>CHOICE *Uu RLC Channel QoS Information* | O |  |  |  | - |  |
| *>>>Uu RLC Channel QoS* |  |  |  |  |  |  |
| >>>>Uu RLC Channel QoS | M |  | QoS Flow Level QoS Parameters  9.3.1.45 |  | - |  |
| *>>>Uu Control Plane Traffic Type* |  |  |  |  |  |  |
| >>>>Uu Control Plane Traffic Type | M |  | ENUMERATED(SRB0, SRB1, SRB2, …) | This IE indicates the type of SRB conveyed via the Uu Relay RLC Channel. | - |  |
| >>RLC Mode | O |  | 9.3.1.27 |  | - |  |
| **Uu RLC Channel to Be Released List** |  | *0..1* |  |  | YES | reject |
| **>Uu RLC Channel to Be Released Item IEs** |  | *1 .. <maxnoofUuRLCChannels>* |  |  | - |  |
| >>Uu RLC channel ID | M |  | 9.3.1.266 |  | - |  |
| **PC5 RLC Channel to Be Setup List** |  | *0..1* |  |  | YES | reject |
| **>PC5 RLC Channel to be Setup Item IEs** |  | *1 .. <maxnoofPC5RLCChannels>* |  |  | - |  |
| >>PC5 RLC Channel ID | M |  | 9.3.1.265 |  | - |  |
| >>Remote UE Local ID | O |  | 9.3.1.267 |  | - |  |
| >>CHOICE *PC5 RLC Channel QoS Information* | M |  |  |  | - |  |
| *>>>PC5 RLC Channel QoS* |  |  |  |  |  |  |
| >>>>PC5 RLC Channel QoS | M |  | QoS Flow Level QoS Parameters  9.3.1.45 |  | - |  |
| *>>>PC5 Control Plane Traffic Type* |  |  |  |  |  |  |
| >>>>PC5 Control Plane Traffic Type | M |  | ENUMERATED(SRB1, SRB2, …) | This IE indicates the type of SRB conveyed via the PC5 Relay RLC Channel. | - |  |
| >>RLC Mode | M |  | 9.3.1.27 |  | - |  |
| **PC5 RLC Channel to Be Modified List** |  | *0..1* |  |  | YES | reject |
| **>PC5 RLC Channel to be Modified Item IEs** |  | *1 .. <maxnoofPC5RLCChannels>* |  |  | - |  |
| >>PC5 RLC Channel ID | M |  | 9.3.1.265 |  | - |  |
| >>Remote UE Local ID | O |  | 9.3.1.267 |  |  |  |
| >>CHOICE *PC5 RLC Channel QoS Information* | O |  |  |  | - |  |
| *>>>PC5 RLC Channel QoS* |  |  |  |  |  |  |
| >>>>PC5 RLC Channel QoS | M |  | QoS Flow Level QoS Parameters  9.3.1.45 |  | - |  |
| *>>>PC5 Control Plane Traffic Type* |  |  |  |  |  |  |
| >>>>PC5 Control Plane Traffic Type | M |  | ENUMERATED(SRB1, SRB2, …) | This IE indicate the type of SRB conveyed via the PC5 Relay RLC Channel. | - |  |
| >>RLC Mode | O |  | 9.3.1.27 |  | - |  |
| **PC5 RLC Channel to Be Released List** |  | *0..1* |  |  | YES | reject |
| **>PC5 RLC Channel to be Released Item IEs** |  | *1 .. <maxnoofPC5RLCChannels>* |  |  | - |  |
| >>PC5 RLC Channel ID | M |  | 9.3.1.265 |  | - |  |
| >>Remote UE Local ID | O |  | 9.3.1.267 |  | - |  |
| Path Switch Configuration | O |  | 9.3.1.263 |  | YES | ignore |
| gNB-DU UE Slice Maximum Bit Rate List | O |  | 9.3.1.271 | The Slice Maximum Bit Rate List is the maximum aggregate UL bit rate per slice, to be enforced by the gNB-DU, if feasible. | YES | ignore |
| Multicast MBS Session Setup List | O |  | Multicast MBS Session List 9.3.1.272 | The list of MBS Session ID that UE has joined. | YES | reject |
| Multicast MBS Session Remove List | O |  | Multicast MBS Session List 9.3.1.272 | The list of MBS Session ID that UE has left. | YES | reject |
| **UE Multicast MRB to Be Setup at Modify List** |  | *0..1* |  |  | YES | reject |
| >UE Multicast MRB to Be Setup at Modify Item IEs |  | *1 .. <maxnoofMRBsforUE>* |  |  | EACH | reject |
| >>MRB ID | M |  | 9.3.1.224 | MRB ID for the UE. | - |  |
| >>MBS PTP Retransmission Tunnel Required | O |  | 9.3.2.10 |  | - |  |
| >>MBS PTP Forwarding Tunnel Required Information | O |  | MRB Progress Information 9.3.2.12 |  | - |  |
| **UE Multicast MRB to Be Released List** |  | *0..1* |  |  | YES | reject |
| **>UE Multicast MRB to Be Released Item IEs** |  | *1 .. <maxnoofMRBsforUE>* |  |  | EACH | reject |
| >>MRB ID | M |  | 9.3.1.224 | MRB ID for the UE. | - |  |
| **SL DRX Cycle List** |  | *0..1* |  |  | YES | ignore |
| **>SL DRX Cycle Item IEs** |  | *1 ..*  *<maxnoofSLdestinations >* |  |  | EACH | ignore |
| >>RX UE ID | M |  | BIT STRING (SIZE(24)) | Indicates the destination L2 ID of RX UE associated to this UE. | - |  |
| >>CHOICE *SL DRX Information* | M |  |  |  | - |  |
| >>>*SL DRX Cycle* |  |  |  |  |  |  |
| >>>>SL DRX Cycle Length | M |  | ENUMERATED (ms10, ms20, ms32, ms40, ms60, ms64, ms70, ms80, ms128, ms160, ms256, ms320, ms512, ms640, ms1024, ms1280, ms2048, ms2560, ms5120, ms10240, ...) | Indicates the desired SL DRX cycle for RX UE associated to this UE. | - |  |
| *>>>No SL DRX* |  |  |  |  | - |  |
| >>>>SL DRX configuration indicator | M |  | ENUMERATED(release,...) |  | - |  |
| Management Based MDT PLMN Modification List | O |  | MDT PLMN Modification List  9.3.1.274 |  | YES | ignore |
| SDT Bearer Configuration Query Indication | O |  | ENUMERATED (true, ...) |  | YES | ignore |
| DAPS HO status | O |  | ENUMERATED(initiation, …) | This IE is used if DAPS HO is initiated. | YES | ignore |
| **ServingCellMO List** |  | *0..1* |  | For NCD-SSBs | YES | ignore |
| **>ServingCellMO Item IEs** |  | *1 .. <maxnoofServingCellMOs>* |  |  | EACH | ignore |
| >>servingCellMO | M |  | INTEGER (1..64) |  | - |  |
| >>SSB frequency | M |  | INTEGER (0..3279165) | ARFCN | - |  |
| Uplink TxDirectCurrentMoreCarrierList Information | O |  | 9.3.1.284 |  | YES | ignore |
| **CPAC MCG Information** |  | *0..1* |  | This IE is used at the MN for MCG configuration as specified in TS 37.340 [7] for CPAC. | YES | ignore |
| >CPAC Trigger | M |  | ENUMERATED (CPAC-preparation, CPAC-executed, …) |  | - | - |
| >PSCell ID | M |  | NR CGI 9.3.1.12 | The PSCell corresponding to the included CG-Config IE at CPAC-preparation or the selected PSCell by the UE at CPAC-executed. | - | - |
| Path Addition Information | O |  | 9.3.1.x1 |  | YES | ignore |

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

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

#### 9.2.2.8 UE CONTEXT MODIFICATION RESPONSE

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

Direction: gNB-DU → gNB-CU.

<<unchanged text omitted >>

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

**<<<<<< Skip unchanged >>>>>>**

#### 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.

<<unchanged text omitted >>

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

<<unchanged text omitted >>

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

## 9.3 Information Element Definitions

### 9.3.1 Radio Network Layer Related IEs

#### 9.3.1.266 Uu RLC Channel ID

This IE uniquely identifies a Uu Relay RLC channel for a L2 U2N Relay UE or a L2 MP Relay UE using N3C.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| Uu RLC Channel ID | M |  | INTEGER (1..32) | Corresponds to information provided in the *Uu-RelayRLC-ChannelID* IE defined in 38.331 [8]. |

#### 9.3.1.268 5G ProSe Authorized

This IE provides information on the authorization status of the UE for NR ProSe services.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| 5G ProSe Direct Discovery | O |  | ENUMERATED (authorized, not authorized, ...) | Indicates whether the UE is authorized for 5G ProSe Direct Discovery | - |  |
| 5G ProSe Direct Communication | O |  | ENUMERATED (authorized, not authorized, ...) | Indicates whether the UE is authorized for 5G ProSe Direct Communication | - |  |
| 5G ProSe Layer-2 UE-to-Network Relay | O |  | ENUMERATED (authorized, not authorized, ...) | Indicates whether the UE is authorized for 5G ProSe Layer-2 UE-to-Network Relay | - |  |
| 5G ProSe Layer-3 UE-to-Network Relay | O |  | ENUMERATED (authorized, not authorized, ...) | Indicates whether the UE is authorized for 5G ProSe Layer-3 UE-to-Network Relay | - |  |
| 5G ProSe Layer-2 Remote UE | O |  | ENUMERATED (authorized, not authorized, ...) | Indicates whether the UE is authorized for 5G ProSe Layer-2 Remote UE | - |  |
| 5G ProSe Layer-2 Multi-path | O |  | ENUMERATED (authorized, not authorized, ...) | Indicates whether the 5G ProSe Layer-2 Remote UE is authorized for 5G ProSe multi-path transmission. | YES | ignore |
| 5G ProSe Layer-2 UE-to-UE Relay | O |  | ENUMERATED (authorized, not authorized, ...) | Indicates whether the UE is authorized for 5G ProSe Layer-2 UE-to-UE Relay UE | YES | ignore |
| 5G ProSe Layer-2 UE-to-UE Remote | O |  | ENUMERATED (authorized, not authorized, ...) | Indicates whether the UE is authorized for 5G ProSe Layer-2 UE-to-UE Remote UE. | YES | ignore |

#### 9.3.1.x1 Path Addition Information

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

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

## 9.4 Message and Information Element Abstract Syntax (with ASN.1)

### 9.4.1 General

F1AP ASN.1 definition conforms to ITU-T Recommendation X.691 [5], ITU-T Recommendation X.680 [12] and ITU-T Recommendation X.681 [13].

The ASN.1 definition specifies the structure and content of F1AP messages. F1AP messages can contain any IEs specified in the object set definitions for that message without the order or number of occurrence being restricted by ASN.1. However, for this version of the standard, a sending entity shall construct an F1AP message according to the PDU definitions module and with the following additional rules:

- IEs shall be ordered (in an IE container) in the order they appear in object set definitions.

- Object set definitions specify how many times IEs may appear. An IE shall appear exactly once if the presence field in an object has value "mandatory". An IE may appear at most once if the presence field in an object has value "optional" or "conditional". If in a tabular format there is multiplicity specified for an IE (i.e., an IE list) then in the corresponding ASN.1 definition the list definition is separated into two parts. The first part defines an IE container list where the list elements reside. The second part defines list elements. The IE container list appears as an IE of its own. For this version of the standard an IE container list may contain only one kind of list elements.

NOTE: In the above "IE" means an IE in the object set with an explicit ID. If one IE needs to appear more than once in one object set, then the different occurrences will have different IE IDs.

If an F1AP message that is not constructed as defined above is received, this shall be considered as Abstract Syntax Error, and the message shall be handled as defined for Abstract Syntax Error in clause 10.

### 9.4.2 Usage of private message mechanism for non-standard use

The private message mechanism for non-standard use may be used:

- for special operator- (and/or vendor) specific features considered not to be part of the basic functionality, i.e., the functionality required for a complete and high-quality specification in order to guarantee multivendor interoperability;

- by vendors for research purposes, e.g., to implement and evaluate new algorithms/features before such features are proposed for standardisation.

The private message mechanism shall not be used for basic functionality. Such functionality shall be standardised.

### 9.4.3 Elementary Procedure Definitions

-- ASN1START

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

--

-- Elementary Procedure definitions

--

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

F1AP-PDU-Descriptions {

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

ngran-access (22) modules (3) f1ap (3) version1 (1) f1ap-PDU-Descriptions (0)}

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

--

-- IE parameter types from other modules.

--

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

IMPORTS

Criticality,

ProcedureCode

FROM F1AP-CommonDataTypes

Reset,

ResetAcknowledge,

F1SetupRequest,

F1SetupResponse,

F1SetupFailure,

GNBDUConfigurationUpdate,

GNBDUConfigurationUpdateAcknowledge,

GNBDUConfigurationUpdateFailure,

GNBCUConfigurationUpdate,

GNBCUConfigurationUpdateAcknowledge,

GNBCUConfigurationUpdateFailure,

UEContextSetupRequest,

UEContextSetupResponse,

UEContextSetupFailure,

UEContextReleaseCommand,

UEContextReleaseComplete,

UEContextModificationRequest,

UEContextModificationResponse,

UEContextModificationFailure,

UEContextModificationRequired,

UEContextModificationConfirm,

ErrorIndication,

UEContextReleaseRequest,

DLRRCMessageTransfer,

ULRRCMessageTransfer,

GNBDUResourceCoordinationRequest,

GNBDUResourceCoordinationResponse,

PrivateMessage,

UEInactivityNotification,

InitialULRRCMessageTransfer,

SystemInformationDeliveryCommand,

Paging,

Notify,

WriteReplaceWarningRequest,

WriteReplaceWarningResponse,

PWSCancelRequest,

PWSCancelResponse,

PWSRestartIndication,

PWSFailureIndication,

GNBDUStatusIndication,

RRCDeliveryReport,

UEContextModificationRefuse,

F1RemovalRequest,

F1RemovalResponse,

F1RemovalFailure,

NetworkAccessRateReduction,

TraceStart,

DeactivateTrace,

DUCURadioInformationTransfer,

CUDURadioInformationTransfer,

BAPMappingConfiguration,

BAPMappingConfigurationAcknowledge,

BAPMappingConfigurationFailure,

GNBDUResourceConfiguration,

GNBDUResourceConfigurationAcknowledge,

GNBDUResourceConfigurationFailure,

IABTNLAddressRequest,

IABTNLAddressResponse,

IABTNLAddressFailure,

IABUPConfigurationUpdateRequest,

IABUPConfigurationUpdateResponse,

IABUPConfigurationUpdateFailure,

ResourceStatusRequest,

ResourceStatusResponse,

ResourceStatusFailure,

ResourceStatusUpdate,

AccessAndMobilityIndication,

ReferenceTimeInformationReportingControl,

ReferenceTimeInformationReport,

AccessSuccess,

CellTrafficTrace,

PositioningMeasurementRequest,

PositioningMeasurementResponse,

PositioningMeasurementFailure,

PositioningAssistanceInformationControl,

PositioningAssistanceInformationFeedback,

PositioningMeasurementReport,

PositioningMeasurementAbort,

PositioningMeasurementFailureIndication,

PositioningMeasurementUpdate,

TRPInformationRequest,

TRPInformationResponse,

TRPInformationFailure,

PositioningInformationRequest,

PositioningInformationResponse,

PositioningInformationFailure,

PositioningActivationRequest,

PositioningActivationResponse,

PositioningActivationFailure,

PositioningDeactivation,

PositioningInformationUpdate,

E-CIDMeasurementInitiationRequest,

E-CIDMeasurementInitiationResponse,

E-CIDMeasurementInitiationFailure,

E-CIDMeasurementFailureIndication,

E-CIDMeasurementReport,

E-CIDMeasurementTerminationCommand,

BroadcastContextSetupRequest,

BroadcastContextSetupResponse,

BroadcastContextSetupFailure,

BroadcastContextReleaseCommand,

BroadcastContextReleaseComplete,

BroadcastContextReleaseRequest,

BroadcastContextModificationRequest,

BroadcastContextModificationResponse,

BroadcastContextModificationFailure,

MulticastGroupPaging,

MulticastContextSetupRequest,

MulticastContextSetupResponse,

MulticastContextSetupFailure,

MulticastContextReleaseCommand,

MulticastContextReleaseComplete,

MulticastContextReleaseRequest,

MulticastContextModificationRequest,

MulticastContextModificationResponse,

MulticastContextModificationFailure,

MulticastDistributionSetupRequest,

MulticastDistributionSetupResponse,

MulticastDistributionSetupFailure,

MulticastDistributionReleaseCommand,

MulticastDistributionReleaseComplete,

PDCMeasurementInitiationRequest,

PDCMeasurementInitiationResponse,

PDCMeasurementInitiationFailure,

PDCMeasurementReport,

PDCMeasurementTerminationCommand,

PDCMeasurementFailureIndication,

PRSConfigurationRequest,

PRSConfigurationResponse,

PRSConfigurationFailure,

MeasurementPreconfigurationRequired,

MeasurementPreconfigurationConfirm,

MeasurementPreconfigurationRefuse,

MeasurementActivation,

QoEInformationTransfer,

PosSystemInformationDeliveryCommand

FROM F1AP-PDU-Contents

id-Reset,

id-F1Setup,

id-gNBDUConfigurationUpdate,

id-gNBCUConfigurationUpdate,

id-UEContextSetup,

id-UEContextRelease,

id-UEContextModification,

id-UEContextModificationRequired,

id-ErrorIndication,

id-UEContextReleaseRequest,

id-DLRRCMessageTransfer,

id-ULRRCMessageTransfer,

id-GNBDUResourceCoordination,

id-privateMessage,

id-UEInactivityNotification,

id-InitialULRRCMessageTransfer,

id-SystemInformationDeliveryCommand,

id-Paging,

id-Notify,

id-WriteReplaceWarning,

id-PWSCancel,

id-PWSRestartIndication,

id-PWSFailureIndication,

id-GNBDUStatusIndication,

id-RRCDeliveryReport,

id-F1Removal,

id-NetworkAccessRateReduction,

id-TraceStart,

id-DeactivateTrace,

id-DUCURadioInformationTransfer,

id-CUDURadioInformationTransfer,

id-BAPMappingConfiguration,

id-GNBDUResourceConfiguration,

id-IABTNLAddressAllocation,

id-IABUPConfigurationUpdate,

id-resourceStatusReportingInitiation,

id-resourceStatusReporting,

id-accessAndMobilityIndication,

id-ReferenceTimeInformationReportingControl,

id-ReferenceTimeInformationReport,

id-accessSuccess,

id-cellTrafficTrace,

id-PositioningMeasurementExchange,

id-PositioningAssistanceInformationControl,

id-PositioningAssistanceInformationFeedback,

id-PositioningMeasurementReport,

id-PositioningMeasurementAbort,

id-PositioningMeasurementFailureIndication,

id-PositioningMeasurementUpdate,

id-TRPInformationExchange,

id-PositioningInformationExchange,

id-PositioningActivation,

id-PositioningDeactivation,

id-PositioningInformationUpdate,

id-E-CIDMeasurementInitiation,

id-E-CIDMeasurementFailureIndication,

id-E-CIDMeasurementReport,

id-E-CIDMeasurementTermination,

id-BroadcastContextSetup,

id-BroadcastContextRelease,

id-BroadcastContextReleaseRequest,

id-BroadcastContextModification,

id-MulticastGroupPaging,

id-MulticastContextSetup,

id-MulticastContextRelease,

id-MulticastContextReleaseRequest,

id-MulticastContextModification,

id-MulticastDistributionSetup,

id-MulticastDistributionRelease,

id-PDCMeasurementInitiation,

id-PDCMeasurementInitiationRequest,

id-PDCMeasurementInitiationResponse,

id-PDCMeasurementInitiationFailure,

id-PDCMeasurementTerminationCommand,

id-PDCMeasurementFailureIndication,

id-PDCMeasurementReport,

id-pRSConfigurationExchange,

id-measurementPreconfiguration,

id-measurementActivation,

id-QoEInformationTransfer,

id-PosSystemInformationDeliveryCommand

FROM F1AP-Constants

ProtocolIE-SingleContainer{},

F1AP-PROTOCOL-IES

FROM F1AP-Containers;

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

--

-- Interface Elementary Procedure Class

--

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

F1AP-ELEMENTARY-PROCEDURE ::= CLASS {

&InitiatingMessage ,

&SuccessfulOutcome OPTIONAL,

&UnsuccessfulOutcome OPTIONAL,

&procedureCode ProcedureCode UNIQUE,

&criticality Criticality DEFAULT ignore

}

WITH SYNTAX {

INITIATING MESSAGE &InitiatingMessage

[SUCCESSFUL OUTCOME &SuccessfulOutcome]

[UNSUCCESSFUL OUTCOME &UnsuccessfulOutcome]

PROCEDURE CODE &procedureCode

[CRITICALITY &criticality]

}

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

--

-- Interface PDU Definition

--

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

F1AP-PDU ::= CHOICE {

initiatingMessage InitiatingMessage,

successfulOutcome SuccessfulOutcome,

unsuccessfulOutcome UnsuccessfulOutcome,

choice-extension ProtocolIE-SingleContainer { { F1AP-PDU-ExtIEs} }

}

F1AP-PDU-ExtIEs F1AP-PROTOCOL-IES ::= { -- this extension is not used

...

}

InitiatingMessage ::= SEQUENCE {

procedureCode F1AP-ELEMENTARY-PROCEDURE.&procedureCode ({F1AP-ELEMENTARY-PROCEDURES}),

criticality F1AP-ELEMENTARY-PROCEDURE.&criticality ({F1AP-ELEMENTARY-PROCEDURES}{@procedureCode}),

value F1AP-ELEMENTARY-PROCEDURE.&InitiatingMessage ({F1AP-ELEMENTARY-PROCEDURES}{@procedureCode})

}

SuccessfulOutcome ::= SEQUENCE {

procedureCode F1AP-ELEMENTARY-PROCEDURE.&procedureCode ({F1AP-ELEMENTARY-PROCEDURES}),

criticality F1AP-ELEMENTARY-PROCEDURE.&criticality ({F1AP-ELEMENTARY-PROCEDURES}{@procedureCode}),

value F1AP-ELEMENTARY-PROCEDURE.&SuccessfulOutcome ({F1AP-ELEMENTARY-PROCEDURES}{@procedureCode})

}

UnsuccessfulOutcome ::= SEQUENCE {

procedureCode F1AP-ELEMENTARY-PROCEDURE.&procedureCode ({F1AP-ELEMENTARY-PROCEDURES}),

criticality F1AP-ELEMENTARY-PROCEDURE.&criticality ({F1AP-ELEMENTARY-PROCEDURES}{@procedureCode}),

value F1AP-ELEMENTARY-PROCEDURE.&UnsuccessfulOutcome ({F1AP-ELEMENTARY-PROCEDURES}{@procedureCode})

}

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

--

-- Interface Elementary Procedure List

--

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

F1AP-ELEMENTARY-PROCEDURES F1AP-ELEMENTARY-PROCEDURE ::= {

F1AP-ELEMENTARY-PROCEDURES-CLASS-1 |

F1AP-ELEMENTARY-PROCEDURES-CLASS-2,

...

}

F1AP-ELEMENTARY-PROCEDURES-CLASS-1 F1AP-ELEMENTARY-PROCEDURE ::= {

reset |

f1Setup |

gNBDUConfigurationUpdate |

gNBCUConfigurationUpdate |

uEContextSetup |

uEContextRelease |

uEContextModification |

uEContextModificationRequired |

writeReplaceWarning |

pWSCancel |

gNBDUResourceCoordination |

f1Removal |

bAPMappingConfiguration |

gNBDUResourceConfiguration |

iABTNLAddressAllocation |

iABUPConfigurationUpdate |

resourceStatusReportingInitiation |

positioningMeasurementExchange |

tRPInformationExchange |

positioningInformationExchange |

positioningActivation |

e-CIDMeasurementInitiation |

broadcastContextSetup |

broadcastContextRelease |

broadcastContextModification|

multicastContextSetup |

multicastContextRelease |

multicastContextModification |

multicastDistributionSetup |

multicastDistributionRelease |

pDCMeasurementInitiation |

pRSConfigurationExchange |

measurementPreconfiguration ,

...

}

F1AP-ELEMENTARY-PROCEDURES-CLASS-2 F1AP-ELEMENTARY-PROCEDURE ::= {

errorIndication |

uEContextReleaseRequest |

dLRRCMessageTransfer |

uLRRCMessageTransfer |

uEInactivityNotification |

privateMessage |

initialULRRCMessageTransfer |

systemInformationDelivery |

paging |

notify |

pWSRestartIndication |

pWSFailureIndication |

gNBDUStatusIndication |

rRCDeliveryReport |

networkAccessRateReduction |

traceStart |

deactivateTrace |

dUCURadioInformationTransfer |

cUDURadioInformationTransfer |

resourceStatusReporting |

accessAndMobilityIndication |

referenceTimeInformationReportingControl|

referenceTimeInformationReport |

accessSuccess |

cellTrafficTrace |

positioningAssistanceInformationControl |

positioningAssistanceInformationFeedback |

positioningMeasurementReport |

positioningMeasurementAbort |

positioningMeasurementFailureIndication |

positioningMeasurementUpdate |

positioningDeactivation |

e-CIDMeasurementFailureIndication |

e-CIDMeasurementReport |

e-CIDMeasurementTermination |

positioningInformationUpdate |

multicastGroupPaging |

broadcastContextReleaseRequest |

multicastContextReleaseRequest |

pDCMeasurementReport |

pDCMeasurementTerminationCommand |

pDCMeasurementFailureIndication |

measurementActivation |

qoEInformationTransfer |

posSystemInformationDelivery,

...

}

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

--

-- Interface Elementary Procedures

--

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

reset F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE Reset

SUCCESSFUL OUTCOME ResetAcknowledge

PROCEDURE CODE id-Reset

CRITICALITY reject

}

f1Setup F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE F1SetupRequest

SUCCESSFUL OUTCOME F1SetupResponse

UNSUCCESSFUL OUTCOME F1SetupFailure

PROCEDURE CODE id-F1Setup

CRITICALITY reject

}

gNBDUConfigurationUpdate F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE GNBDUConfigurationUpdate

SUCCESSFUL OUTCOME GNBDUConfigurationUpdateAcknowledge

UNSUCCESSFUL OUTCOME GNBDUConfigurationUpdateFailure

PROCEDURE CODE id-gNBDUConfigurationUpdate

CRITICALITY reject

}

gNBCUConfigurationUpdate F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE GNBCUConfigurationUpdate

SUCCESSFUL OUTCOME GNBCUConfigurationUpdateAcknowledge

UNSUCCESSFUL OUTCOME GNBCUConfigurationUpdateFailure

PROCEDURE CODE id-gNBCUConfigurationUpdate

CRITICALITY reject

}

uEContextSetup F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE UEContextSetupRequest

SUCCESSFUL OUTCOME UEContextSetupResponse

UNSUCCESSFUL OUTCOME UEContextSetupFailure

PROCEDURE CODE id-UEContextSetup

CRITICALITY reject

}

uEContextRelease F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE UEContextReleaseCommand

SUCCESSFUL OUTCOME UEContextReleaseComplete

PROCEDURE CODE id-UEContextRelease

CRITICALITY reject

}

uEContextModification F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE UEContextModificationRequest

SUCCESSFUL OUTCOME UEContextModificationResponse

UNSUCCESSFUL OUTCOME UEContextModificationFailure

PROCEDURE CODE id-UEContextModification

CRITICALITY reject

}

uEContextModificationRequired F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE UEContextModificationRequired

SUCCESSFUL OUTCOME UEContextModificationConfirm

UNSUCCESSFUL OUTCOME UEContextModificationRefuse

PROCEDURE CODE id-UEContextModificationRequired

CRITICALITY reject

}

writeReplaceWarning F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE WriteReplaceWarningRequest

SUCCESSFUL OUTCOME WriteReplaceWarningResponse

PROCEDURE CODE id-WriteReplaceWarning

CRITICALITY reject

}

pWSCancel F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PWSCancelRequest

SUCCESSFUL OUTCOME PWSCancelResponse

PROCEDURE CODE id-PWSCancel

CRITICALITY reject

}

errorIndication F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ErrorIndication

PROCEDURE CODE id-ErrorIndication

CRITICALITY ignore

}

uEContextReleaseRequest F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE UEContextReleaseRequest

PROCEDURE CODE id-UEContextReleaseRequest

CRITICALITY ignore

}

initialULRRCMessageTransfer F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE InitialULRRCMessageTransfer

PROCEDURE CODE id-InitialULRRCMessageTransfer

CRITICALITY ignore

}

dLRRCMessageTransfer F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE DLRRCMessageTransfer

PROCEDURE CODE id-DLRRCMessageTransfer

CRITICALITY ignore

}

uLRRCMessageTransfer F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ULRRCMessageTransfer

PROCEDURE CODE id-ULRRCMessageTransfer

CRITICALITY ignore

}

uEInactivityNotification F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE UEInactivityNotification

PROCEDURE CODE id-UEInactivityNotification

CRITICALITY ignore

}

gNBDUResourceCoordination F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE GNBDUResourceCoordinationRequest

SUCCESSFUL OUTCOME GNBDUResourceCoordinationResponse

PROCEDURE CODE id-GNBDUResourceCoordination

CRITICALITY reject

}

privateMessage F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PrivateMessage

PROCEDURE CODE id-privateMessage

CRITICALITY ignore

}

systemInformationDelivery F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SystemInformationDeliveryCommand

PROCEDURE CODE id-SystemInformationDeliveryCommand

CRITICALITY ignore

}

paging F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE Paging

PROCEDURE CODE id-Paging

CRITICALITY ignore

}

notify F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE Notify

PROCEDURE CODE id-Notify

CRITICALITY ignore

}

networkAccessRateReduction F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE NetworkAccessRateReduction

PROCEDURE CODE id-NetworkAccessRateReduction

CRITICALITY ignore

}

pWSRestartIndication F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PWSRestartIndication

PROCEDURE CODE id-PWSRestartIndication

CRITICALITY ignore

}

pWSFailureIndication F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PWSFailureIndication

PROCEDURE CODE id-PWSFailureIndication

CRITICALITY ignore

}

gNBDUStatusIndication F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE GNBDUStatusIndication

PROCEDURE CODE id-GNBDUStatusIndication

CRITICALITY ignore

}

rRCDeliveryReport F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE RRCDeliveryReport

PROCEDURE CODE id-RRCDeliveryReport

CRITICALITY ignore

}

f1Removal F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE F1RemovalRequest

SUCCESSFUL OUTCOME F1RemovalResponse

UNSUCCESSFUL OUTCOME F1RemovalFailure

PROCEDURE CODE id-F1Removal

CRITICALITY reject

}

traceStart F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE TraceStart

PROCEDURE CODE id-TraceStart

CRITICALITY ignore

}

deactivateTrace F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE DeactivateTrace

PROCEDURE CODE id-DeactivateTrace

CRITICALITY ignore

}

dUCURadioInformationTransfer F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE DUCURadioInformationTransfer

PROCEDURE CODE id-DUCURadioInformationTransfer

CRITICALITY ignore

}

cUDURadioInformationTransfer F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE CUDURadioInformationTransfer

PROCEDURE CODE id-CUDURadioInformationTransfer

CRITICALITY ignore

}

bAPMappingConfiguration F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE BAPMappingConfiguration

SUCCESSFUL OUTCOME BAPMappingConfigurationAcknowledge

UNSUCCESSFUL OUTCOME BAPMappingConfigurationFailure

PROCEDURE CODE id-BAPMappingConfiguration

CRITICALITY reject

}

gNBDUResourceConfiguration F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE GNBDUResourceConfiguration

SUCCESSFUL OUTCOME GNBDUResourceConfigurationAcknowledge

UNSUCCESSFUL OUTCOME GNBDUResourceConfigurationFailure

PROCEDURE CODE id-GNBDUResourceConfiguration

CRITICALITY reject

}

iABTNLAddressAllocation F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE IABTNLAddressRequest

SUCCESSFUL OUTCOME IABTNLAddressResponse

UNSUCCESSFUL OUTCOME IABTNLAddressFailure

PROCEDURE CODE id-IABTNLAddressAllocation

CRITICALITY reject

}

iABUPConfigurationUpdate F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE IABUPConfigurationUpdateRequest

SUCCESSFUL OUTCOME IABUPConfigurationUpdateResponse

UNSUCCESSFUL OUTCOME IABUPConfigurationUpdateFailure

PROCEDURE CODE id-IABUPConfigurationUpdate

CRITICALITY reject

}

resourceStatusReportingInitiation F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ResourceStatusRequest

SUCCESSFUL OUTCOME ResourceStatusResponse

UNSUCCESSFUL OUTCOME ResourceStatusFailure

PROCEDURE CODE id-resourceStatusReportingInitiation

CRITICALITY reject

}

resourceStatusReporting F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ResourceStatusUpdate

PROCEDURE CODE id-resourceStatusReporting

CRITICALITY ignore

}

accessAndMobilityIndication F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE AccessAndMobilityIndication

PROCEDURE CODE id-accessAndMobilityIndication

CRITICALITY ignore

}

referenceTimeInformationReportingControl F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ReferenceTimeInformationReportingControl

PROCEDURE CODE id-ReferenceTimeInformationReportingControl

CRITICALITY ignore

}

referenceTimeInformationReport F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ReferenceTimeInformationReport

PROCEDURE CODE id-ReferenceTimeInformationReport

CRITICALITY ignore

}

accessSuccess F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE AccessSuccess

PROCEDURE CODE id-accessSuccess

CRITICALITY ignore

}

cellTrafficTrace F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE CellTrafficTrace

PROCEDURE CODE id-cellTrafficTrace

CRITICALITY ignore

}

positioningAssistanceInformationControl F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PositioningAssistanceInformationControl

PROCEDURE CODE id-PositioningAssistanceInformationControl

CRITICALITY ignore

}

positioningAssistanceInformationFeedback F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PositioningAssistanceInformationFeedback

PROCEDURE CODE id-PositioningAssistanceInformationFeedback

CRITICALITY ignore

}

positioningMeasurementExchange F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PositioningMeasurementRequest

SUCCESSFUL OUTCOME PositioningMeasurementResponse

UNSUCCESSFUL OUTCOME PositioningMeasurementFailure

PROCEDURE CODE id-PositioningMeasurementExchange

CRITICALITY reject

}

positioningMeasurementReport F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PositioningMeasurementReport

PROCEDURE CODE id-PositioningMeasurementReport

CRITICALITY ignore

}

positioningMeasurementAbort F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PositioningMeasurementAbort

PROCEDURE CODE id-PositioningMeasurementAbort

CRITICALITY ignore

}

positioningMeasurementFailureIndication F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PositioningMeasurementFailureIndication

PROCEDURE CODE id-PositioningMeasurementFailureIndication

CRITICALITY ignore

}

positioningMeasurementUpdate F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PositioningMeasurementUpdate

PROCEDURE CODE id-PositioningMeasurementUpdate

CRITICALITY ignore

}

tRPInformationExchange F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE TRPInformationRequest

SUCCESSFUL OUTCOME TRPInformationResponse

UNSUCCESSFUL OUTCOME TRPInformationFailure

PROCEDURE CODE id-TRPInformationExchange

CRITICALITY reject

}

positioningInformationExchange F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PositioningInformationRequest

SUCCESSFUL OUTCOME PositioningInformationResponse

UNSUCCESSFUL OUTCOME PositioningInformationFailure

PROCEDURE CODE id-PositioningInformationExchange

CRITICALITY reject

}

positioningActivation F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PositioningActivationRequest

SUCCESSFUL OUTCOME PositioningActivationResponse

UNSUCCESSFUL OUTCOME PositioningActivationFailure

PROCEDURE CODE id-PositioningActivation

CRITICALITY reject

}

positioningDeactivation F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PositioningDeactivation

PROCEDURE CODE id-PositioningDeactivation

CRITICALITY ignore

}

e-CIDMeasurementInitiation F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE E-CIDMeasurementInitiationRequest

SUCCESSFUL OUTCOME E-CIDMeasurementInitiationResponse

UNSUCCESSFUL OUTCOME E-CIDMeasurementInitiationFailure

PROCEDURE CODE id-E-CIDMeasurementInitiation

CRITICALITY reject

}

e-CIDMeasurementFailureIndication F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE E-CIDMeasurementFailureIndication

PROCEDURE CODE id-E-CIDMeasurementFailureIndication

CRITICALITY ignore

}

e-CIDMeasurementReport F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE E-CIDMeasurementReport

PROCEDURE CODE id-E-CIDMeasurementReport

CRITICALITY ignore

}

e-CIDMeasurementTermination F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE E-CIDMeasurementTerminationCommand

PROCEDURE CODE id-E-CIDMeasurementTermination

CRITICALITY ignore

}

positioningInformationUpdate F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PositioningInformationUpdate

PROCEDURE CODE id-PositioningInformationUpdate

CRITICALITY ignore

}

broadcastContextSetup F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE BroadcastContextSetupRequest

SUCCESSFUL OUTCOME BroadcastContextSetupResponse

UNSUCCESSFUL OUTCOME BroadcastContextSetupFailure

PROCEDURE CODE id-BroadcastContextSetup

CRITICALITY reject

}

broadcastContextRelease F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE BroadcastContextReleaseCommand

SUCCESSFUL OUTCOME BroadcastContextReleaseComplete

PROCEDURE CODE id-BroadcastContextRelease

CRITICALITY reject

}

broadcastContextReleaseRequest F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE BroadcastContextReleaseRequest

PROCEDURE CODE id-BroadcastContextReleaseRequest

CRITICALITY reject

}

broadcastContextModification F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE BroadcastContextModificationRequest

SUCCESSFUL OUTCOME BroadcastContextModificationResponse

UNSUCCESSFUL OUTCOME BroadcastContextModificationFailure

PROCEDURE CODE id-BroadcastContextModification

CRITICALITY reject

}

multicastGroupPaging F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE MulticastGroupPaging

PROCEDURE CODE id-MulticastGroupPaging

CRITICALITY ignore

}

multicastContextSetup F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE MulticastContextSetupRequest

SUCCESSFUL OUTCOME MulticastContextSetupResponse

UNSUCCESSFUL OUTCOME MulticastContextSetupFailure

PROCEDURE CODE id-MulticastContextSetup

CRITICALITY reject

}

multicastContextRelease F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE MulticastContextReleaseCommand

SUCCESSFUL OUTCOME MulticastContextReleaseComplete

PROCEDURE CODE id-MulticastContextRelease

CRITICALITY reject

}

multicastContextReleaseRequest F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE MulticastContextReleaseRequest

PROCEDURE CODE id-MulticastContextReleaseRequest

CRITICALITY reject

}

multicastContextModification F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE MulticastContextModificationRequest

SUCCESSFUL OUTCOME MulticastContextModificationResponse

UNSUCCESSFUL OUTCOME MulticastContextModificationFailure

PROCEDURE CODE id-MulticastContextModification

CRITICALITY reject

}

multicastDistributionSetup F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE MulticastDistributionSetupRequest

SUCCESSFUL OUTCOME MulticastDistributionSetupResponse

UNSUCCESSFUL OUTCOME MulticastDistributionSetupFailure

PROCEDURE CODE id-MulticastDistributionSetup

CRITICALITY reject

}

multicastDistributionRelease F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE MulticastDistributionReleaseCommand

SUCCESSFUL OUTCOME MulticastDistributionReleaseComplete

PROCEDURE CODE id-MulticastDistributionRelease

CRITICALITY reject

}

pDCMeasurementInitiation F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PDCMeasurementInitiationRequest

SUCCESSFUL OUTCOME PDCMeasurementInitiationResponse

UNSUCCESSFUL OUTCOME PDCMeasurementInitiationFailure

PROCEDURE CODE id-PDCMeasurementInitiation

CRITICALITY reject

}

pDCMeasurementReport F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PDCMeasurementReport

PROCEDURE CODE id-PDCMeasurementReport

CRITICALITY ignore

}

pDCMeasurementTerminationCommand F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PDCMeasurementTerminationCommand

PROCEDURE CODE id-PDCMeasurementTerminationCommand

CRITICALITY ignore

}

pDCMeasurementFailureIndication F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PDCMeasurementFailureIndication

PROCEDURE CODE id-PDCMeasurementFailureIndication

CRITICALITY ignore

}

pRSConfigurationExchange F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PRSConfigurationRequest

SUCCESSFUL OUTCOME PRSConfigurationResponse

UNSUCCESSFUL OUTCOME PRSConfigurationFailure

PROCEDURE CODE id-pRSConfigurationExchange

CRITICALITY reject

}

measurementPreconfiguration F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE MeasurementPreconfigurationRequired

SUCCESSFUL OUTCOME MeasurementPreconfigurationConfirm

UNSUCCESSFUL OUTCOME MeasurementPreconfigurationRefuse

PROCEDURE CODE id-measurementPreconfiguration

CRITICALITY reject

}

measurementActivation F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE MeasurementActivation

PROCEDURE CODE id-measurementActivation

CRITICALITY ignore

}

qoEInformationTransfer F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE QoEInformationTransfer

PROCEDURE CODE id-QoEInformationTransfer

CRITICALITY ignore

}

posSystemInformationDelivery F1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PosSystemInformationDeliveryCommand

PROCEDURE CODE id-PosSystemInformationDeliveryCommand

CRITICALITY ignore

}

END

-- ASN1STOP

### 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,

MulticastF1UContextReferenceCU,

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,

SLDRBs-ToBeReleased-Item,

SLDRBs-ToBeSetup-Item,

SLDRBs-ToBeSetupMod-Item,

GNBCUMeasurementID,

GNBDUMeasurementID,

RegistrationRequest,

ReportCharacteristics,

CellToReportList,

HardwareLoadIndicator,

CellMeasurementResultList,

ReportingPeriodicity,

TNLCapacityIndicator,

RACHReportInformationList,

RLFReportInformationList,

ReportingRequestType,

TimeReferenceInformation,

ConditionalInterDUMobilityInformation,

ConditionalIntraDUMobilityInformation,

TargetCellList,

MDTPLMNList,

PrivacyIndicator,

TransportLayerAddress,

URI-address,

NID,

PosAssistance-Information,

PosBroadcast,

PositioningBroadcastCells,

RoutingID,

PosAssistanceInformationFailureList,

PosMeasurementQuantities,

PosMeasurementResultList,

PosReportCharacteristics,

TRPInformationTypeItem,

TRPInformationItem,

LMF-MeasurementID,

RAN-MeasurementID,

SDT-Termination-Request,

SRSResourceSetID,

SpatialRelationInfo,

SRSResourceTrigger,

SRSConfiguration,

TRPList,

E-CID-MeasurementQuantities,

MeasurementPeriodicity,

E-CID-MeasurementResult,

Cell-Portion-ID,

LMF-UE-MeasurementID,

RAN-UE-MeasurementID,

RelativeTime1900,

SystemFrameNumber,

SlotNumber,

AbortTransmission,

TRP-MeasurementRequestList,

MeasurementBeamInfoRequest,

E-CID-ReportCharacteristics,

Extended-GNB-CU-Name,

Extended-GNB-DU-Name,

F1CTransferPath,

SCGIndicator,

SpatialRelationPerSRSResource,

MeasurementPeriodicityExtended,

SuccessfulHOReportInformationList,

Coverage-Modification-Notification,

CCO-Assistance-Information,

CellsForSON-List,

IABCongestionIndication,

IABConditionalRRCMessageDeliveryIndication,

F1CTransferPathNRDC,

BufferSizeThresh,

IAB-TNL-Addresses-Exception,

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

Re-routingEnableIndicator,

NonF1terminatingTopologyIndicator,

EgressNonF1terminatingTopologyIndicator,

IngressNonF1terminatingTopologyIndicator,

Neighbour-Node-Cells-List,

Neighbour-Node-Cells-List-Item,

NA-Resource-Configuration-List,

NA-Resource-Configuration-Item,

Serving-Cells-List,

Serving-Cells-List-Item,

RBSetConfiguration,

PDCMeasurementPeriodicity,

PDCMeasurementQuantities,

PDCMeasurementResult,

PDCReportType,

RAN-UE-PDC-MeasID,

SCGActivationRequest,

SCGActivationStatus,

TRP-MeasurementUpdateList,

PRSTRPList,

PRSTransmissionTRPList,

ResponseTime,

TRP-PRS-Info-List,

PRS-Measurement-Info-List,

PRSConfigRequestType,

MeasurementCharacteristicsRequestIndicator,

MeasurementTimeOccasion,

UEReportingInformation,

PosConextRevIndication,

NRRedCapUEIndication,

NRPagingeDRXInformation,

NRPagingeDRXInformationforRRCINACTIVE,

QoEInformation,

CG-SDTQueryIndication,

CG-SDTKeptIndicator,

CG-SDTSessionInfo,

SDTInformation,

FiveG-ProSeAuthorized,

UuRLCChannelToBeSetupList,

UuRLCChannelToBeModifiedList,

UuRLCChannelToBeReleasedList,

UuRLCChannelSetupList,

UuRLCChannelFailedToBeSetupList,

UuRLCChannelModifiedList,

UuRLCChannelFailedToBeModifiedList,

UuRLCChannelRequiredToBeModifiedList,

UuRLCChannelRequiredToBeReleasedList,

PC5RLCChannelToBeSetupList,

PC5RLCChannelToBeModifiedList,

PC5RLCChannelToBeReleasedList,

PC5RLCChannelSetupList,

PC5RLCChannelFailedToBeSetupList,

PC5RLCChannelFailedToBeModifiedList,

PC5RLCChannelRequiredToBeModifiedList,

PC5RLCChannelRequiredToBeReleasedList,

PC5RLCChannelModifiedList,

RemoteUELocalID,

PathSwitchConfiguration,

SidelinkRelayConfiguration,

PagingCause,

PEIPSAssistanceInfo,

UEPagingCapability,

GNBDUUESliceMaximumBitRateList,

MDTPollutedMeasurementIndicator,

UE-MulticastMRBs-ConfirmedToBeModified-Item,

UE-MulticastMRBs-RequiredToBeModified-Item,

UE-MulticastMRBs-RequiredToBeReleased-Item,

UE-MulticastMRBs-Setup-Item,

UE-MulticastMRBs-Setupnew-Item,

UE-MulticastMRBs-ToBeReleased-Item,

UE-MulticastMRBs-ToBeSetup-Item,

UE-MulticastMRBs-ToBeSetup-atModify-Item,

PosMeasurementAmount,

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

SLDRXCycleList,

MDTPLMNModificationList,

ActivationRequestType,

PosMeasGapPreConfigList,

PosMeasurementPeriodicityNR-AoA,

SRSPosRRCInactiveConfig,

SDTBearerConfigurationQueryIndication,

SDTBearerConfigurationInfo,

ServingCellMO-List-Item,

ServingCellMO-encoded-in-CGC-List,

PosSItypeList,

DAPS-HO-Status,

UuRLCChannelID,

UplinkTxDirectCurrentTwoCarrierListInfo,

SRSPosRRCInactiveQueryIndication,

MC-PagingCell-Item,

UlTxDirectCurrentMoreCarrierInformation,

CPACMCGInformation,

ExtendedUEIdentityIndexValue,

HashedUEIdentityIndexValue,

PathAdditionInformation

FROM F1AP-IEs

PrivateIE-Container{},

ProtocolExtensionContainer{},

ProtocolIE-Container{},

ProtocolIE-ContainerPair{},

ProtocolIE-SingleContainer{},

F1AP-PRIVATE-IES,

F1AP-PROTOCOL-EXTENSION,

F1AP-PROTOCOL-IES,

F1AP-PROTOCOL-IES-PAIR

FROM F1AP-Containers

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-MC-PagingCell-Item,

id-MC-PagingCell-List,

id-MulticastF1UContextReferenceCU,

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,

id-MulticastMRBs-Modified-List,

id-MulticastMRBs-Modified-Item,

id-MulticastMRBs-Setup-List,

id-MulticastMRBs-Setup-Item,

id-MulticastMRBs-SetupMod-List,

id-MulticastMRBs-SetupMod-Item,

id-MulticastMRBs-ToBeModified-List,

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,

id-SRBs-ToBeReleased-Item,

id-SRBs-ToBeReleased-List,

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-Setup-List,

id-UE-MulticastMRBs-Setup-Item,

id-UE-MulticastMRBs-Setupnew-List,

id-UE-MulticastMRBs-Setupnew-Item,

id-UE-MulticastMRBs-ToBeReleased-List,

id-UE-MulticastMRBs-ToBeReleased-Item,

id-UE-MulticastMRBs-ToBeSetup-atModify-List,

id-UE-MulticastMRBs-ToBeSetup-atModify-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,

id-BHChannels-ToBeSetupMod-List,

id-BHChannels-FailedToBeSetup-Item,

id-BHChannels-FailedToBeSetup-List,

id-BHChannels-FailedToBeModified-Item,

id-BHChannels-FailedToBeModified-List,

id-BHChannels-FailedToBeSetupMod-Item,

id-BHChannels-FailedToBeSetupMod-List,

id-BHChannels-Modified-Item,

id-BHChannels-Modified-List,

id-BHChannels-SetupMod-Item,

id-BHChannels-SetupMod-List,

id-BHChannels-Required-ToBeReleased-Item,

id-BHChannels-Required-ToBeReleased-List,

id-BAPAddress,

id-ConfiguredBAPAddress,

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

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

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,

id-SLDRBs-Modified-Item,

id-SLDRBs-Modified-List,

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,

id-SLDRBs-ToBeModified-Item,

id-SLDRBs-ToBeModified-List,

id-SLDRBs-ToBeReleased-Item,

id-SLDRBs-ToBeReleased-List,

id-SLDRBs-ToBeSetup-Item,

id-SLDRBs-ToBeSetup-List,

id-SLDRBs-ToBeSetupMod-Item,

id-SLDRBs-ToBeSetupMod-List,

id-SLDRBs-SetupMod-List,

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,

id-PosMeasurementPeriodicityNR-AoA,

id-SRSPosRRCInactiveConfig,

id-SDTBearerConfigurationQueryIndication,

id-SDTBearerConfigurationInfo,

id-ServingCellMO-List,

id-ServingCellMO-List-Item,

id-ServingCellMO-encoded-in-CGC-List,

id-PosSItypeList,

id-DAPS-HO-Status,

id-SRBMappingInfo,

id-UplinkTxDirectCurrentTwoCarrierListInfo,

id-SRSPosRRCInactiveQueryIndication,

id-UlTxDirectCurrentMoreCarrierInformation,

id-CPACMCGInformation,

id-ExtendedUEIdentityIndexValue,

id-HashedUEIdentityIndexValue,

id-PathAdditionInformation,

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,

maxnoofServingCellMOs

FROM F1AP-Constants;

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

--

-- RESET ELEMENTARY PROCEDURE

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

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

--

-- Reset

--

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

Reset ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {ResetIEs} },

...

}

ResetIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

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

{ ID id-ResetType CRITICALITY reject TYPE ResetType PRESENCE mandatory },

...

}

ResetType ::= CHOICE {

f1-Interface ResetAll,

partOfF1-Interface UE-associatedLogicalF1-ConnectionListRes,

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

}

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

...

}

ResetAll ::= ENUMERATED {

reset-all,

...

}

UE-associatedLogicalF1-ConnectionListRes ::= SEQUENCE (SIZE(1.. maxnoofIndividualF1ConnectionsToReset)) OF ProtocolIE-SingleContainer { { UE-associatedLogicalF1-ConnectionItemRes } }

UE-associatedLogicalF1-ConnectionItemRes F1AP-PROTOCOL-IES ::= {

{ ID id-UE-associatedLogicalF1-ConnectionItem CRITICALITY reject TYPE UE-associatedLogicalF1-ConnectionItem PRESENCE mandatory},

...

}

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

--

-- Reset Acknowledge

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

ResetAcknowledge ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {ResetAcknowledgeIEs} },

...

}

ResetAcknowledgeIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-UE-associatedLogicalF1-ConnectionListResAck CRITICALITY ignore TYPE UE-associatedLogicalF1-ConnectionListResAck PRESENCE optional }|

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

...

}

UE-associatedLogicalF1-ConnectionListResAck ::= SEQUENCE (SIZE(1.. maxnoofIndividualF1ConnectionsToReset)) OF ProtocolIE-SingleContainer { { UE-associatedLogicalF1-ConnectionItemResAck } }

UE-associatedLogicalF1-ConnectionItemResAck F1AP-PROTOCOL-IES ::= {

{ ID id-UE-associatedLogicalF1-ConnectionItem CRITICALITY ignore TYPE UE-associatedLogicalF1-ConnectionItem PRESENCE mandatory },

...

}

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

--

-- ERROR INDICATION ELEMENTARY PROCEDURE

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

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

--

-- Error Indication

--

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

ErrorIndication ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ErrorIndicationIEs}},

...

}

ErrorIndicationIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory}|

{ ID id-gNB-CU-UE-F1AP-ID CRITICALITY ignore TYPE GNB-CU-UE-F1AP-ID PRESENCE optional }|

{ ID id-gNB-DU-UE-F1AP-ID CRITICALITY ignore TYPE GNB-DU-UE-F1AP-ID PRESENCE optional }|

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

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

...

}

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

--

-- F1 SETUP ELEMENTARY PROCEDURE

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

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

--

-- F1 Setup Request

--

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

F1SetupRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {F1SetupRequestIEs} },

...

}

F1SetupRequestIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

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

{ ID id-gNB-DU-Name CRITICALITY ignore TYPE GNB-DU-Name PRESENCE optional }|

{ ID id-gNB-DU-Served-Cells-List CRITICALITY reject TYPE GNB-DU-Served-Cells-List PRESENCE optional }|

{ ID id-GNB-DU-RRC-Version CRITICALITY reject TYPE RRC-Version PRESENCE mandatory }|

{ ID id-Transport-Layer-Address-Info CRITICALITY ignore TYPE Transport-Layer-Address-Info PRESENCE optional }|

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

{ ID id-Extended-GNB-DU-Name CRITICALITY ignore TYPE Extended-GNB-DU-Name PRESENCE optional },

...

}

GNB-DU-Served-Cells-List ::= SEQUENCE (SIZE(1.. maxCellingNBDU)) OF ProtocolIE-SingleContainer { { GNB-DU-Served-Cells-ItemIEs } }

GNB-DU-Served-Cells-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-GNB-DU-Served-Cells-Item CRITICALITY reject TYPE GNB-DU-Served-Cells-Item PRESENCE mandatory },

...

}

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

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-- F1 Setup Response

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

F1SetupResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {F1SetupResponseIEs} },

...

}

F1SetupResponseIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-gNB-CU-Name CRITICALITY ignore TYPE GNB-CU-Name PRESENCE optional }|

{ ID id-Cells-to-be-Activated-List CRITICALITY reject TYPE Cells-to-be-Activated-List PRESENCE optional }|

{ ID id-GNB-CU-RRC-Version CRITICALITY reject TYPE RRC-Version PRESENCE mandatory }|

{ ID id-Transport-Layer-Address-Info CRITICALITY ignore TYPE Transport-Layer-Address-Info PRESENCE optional }|

{ ID id-UL-BH-Non-UP-Traffic-Mapping CRITICALITY reject TYPE UL-BH-Non-UP-Traffic-Mapping PRESENCE optional }|

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

{ ID id-Extended-GNB-CU-Name CRITICALITY ignore TYPE Extended-GNB-CU-Name PRESENCE optional },

...

}

Cells-to-be-Activated-List ::= SEQUENCE (SIZE(1.. maxCellingNBDU)) OF ProtocolIE-SingleContainer { { Cells-to-be-Activated-List-ItemIEs } }

Cells-to-be-Activated-List-ItemIEs F1AP-PROTOCOL-IES::= {

{ ID id-Cells-to-be-Activated-List-Item CRITICALITY reject TYPE Cells-to-be-Activated-List-Item PRESENCE mandatory},

...

}

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

--

-- F1 Setup Failure

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

F1SetupFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {F1SetupFailureIEs} },

...

}

F1SetupFailureIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

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

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

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

...

}

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

--

-- GNB-DU CONFIGURATION UPDATE ELEMENTARY PROCEDURE

--

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

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

--

-- GNB-DU CONFIGURATION UPDATE

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

GNBDUConfigurationUpdate::= SEQUENCE {

protocolIEs ProtocolIE-Container { {GNBDUConfigurationUpdateIEs} },

...

}

GNBDUConfigurationUpdateIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-Served-Cells-To-Add-List CRITICALITY reject TYPE Served-Cells-To-Add-List PRESENCE optional }|

{ ID id-Served-Cells-To-Modify-List CRITICALITY reject TYPE Served-Cells-To-Modify-List PRESENCE optional }|

{ ID id-Served-Cells-To-Delete-List CRITICALITY reject TYPE Served-Cells-To-Delete-List PRESENCE optional }|

{ ID id-Cells-Status-List CRITICALITY reject TYPE Cells-Status-List PRESENCE optional }|

{ ID id-Dedicated-SIDelivery-NeededUE-List CRITICALITY ignore TYPE Dedicated-SIDelivery-NeededUE-List PRESENCE optional }|

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

{ ID id-GNB-DU-TNL-Association-To-Remove-List CRITICALITY reject TYPE GNB-DU-TNL-Association-To-Remove-List PRESENCE optional }|

{ ID id-Transport-Layer-Address-Info CRITICALITY ignore TYPE Transport-Layer-Address-Info PRESENCE optional }|

{ ID id-Coverage-Modification-Notification CRITICALITY ignore TYPE Coverage-Modification-Notification PRESENCE optional }|

{ ID id-gNB-DU-Name CRITICALITY ignore TYPE GNB-DU-Name PRESENCE optional }|

{ ID id-Extended-GNB-DU-Name CRITICALITY ignore TYPE Extended-GNB-DU-Name PRESENCE optional },

...

}

Served-Cells-To-Add-List ::= SEQUENCE (SIZE(1.. maxCellingNBDU)) OF ProtocolIE-SingleContainer { { Served-Cells-To-Add-ItemIEs } }

Served-Cells-To-Modify-List ::= SEQUENCE (SIZE(1.. maxCellingNBDU)) OF ProtocolIE-SingleContainer { { Served-Cells-To-Modify-ItemIEs } }

Served-Cells-To-Delete-List ::= SEQUENCE (SIZE(1.. maxCellingNBDU)) OF ProtocolIE-SingleContainer { { Served-Cells-To-Delete-ItemIEs } }

Cells-Status-List ::= SEQUENCE (SIZE(0.. maxCellingNBDU)) OF ProtocolIE-SingleContainer { { Cells-Status-ItemIEs } }

Dedicated-SIDelivery-NeededUE-List::= SEQUENCE (SIZE(1.. maxnoofUEIDs)) OF ProtocolIE-SingleContainer { { Dedicated-SIDelivery-NeededUE-ItemIEs } }

GNB-DU-TNL-Association-To-Remove-List ::= SEQUENCE (SIZE(1.. maxnoofTNLAssociations)) OF ProtocolIE-SingleContainer { { GNB-DU-TNL-Association-To-Remove-ItemIEs } }

Served-Cells-To-Add-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-Served-Cells-To-Add-Item CRITICALITY reject TYPE Served-Cells-To-Add-Item PRESENCE mandatory },

...

}

Served-Cells-To-Modify-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-Served-Cells-To-Modify-Item CRITICALITY reject TYPE Served-Cells-To-Modify-Item PRESENCE mandatory },

...

}

Served-Cells-To-Delete-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-Served-Cells-To-Delete-Item CRITICALITY reject TYPE Served-Cells-To-Delete-Item PRESENCE mandatory },

...

}

Cells-Status-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-Cells-Status-Item CRITICALITY reject TYPE Cells-Status-Item PRESENCE mandatory },

...

}

Dedicated-SIDelivery-NeededUE-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-Dedicated-SIDelivery-NeededUE-Item CRITICALITY ignore TYPE Dedicated-SIDelivery-NeededUE-Item PRESENCE mandatory },

...

}

GNB-DU-TNL-Association-To-Remove-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-GNB-DU-TNL-Association-To-Remove-Item CRITICALITY reject TYPE GNB-DU-TNL-Association-To-Remove-Item PRESENCE mandatory },

...

}

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

--

-- GNB-DU CONFIGURATION UPDATE ACKNOWLEDGE

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

GNBDUConfigurationUpdateAcknowledge ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {GNBDUConfigurationUpdateAcknowledgeIEs} },

...

}

GNBDUConfigurationUpdateAcknowledgeIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-Cells-to-be-Activated-List CRITICALITY reject TYPE Cells-to-be-Activated-List PRESENCE optional }|

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

{ ID id-Cells-to-be-Deactivated-List CRITICALITY reject TYPE Cells-to-be-Deactivated-List PRESENCE optional }|

{ ID id-Transport-Layer-Address-Info CRITICALITY ignore TYPE Transport-Layer-Address-Info PRESENCE optional }|

{ ID id-UL-BH-Non-UP-Traffic-Mapping CRITICALITY reject TYPE UL-BH-Non-UP-Traffic-Mapping PRESENCE optional }|

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

{ ID id-CellsForSON-List CRITICALITY ignore TYPE CellsForSON-List PRESENCE optional },

...

}

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

--

-- GNB-DU CONFIGURATION UPDATE FAILURE

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

GNBDUConfigurationUpdateFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {GNBDUConfigurationUpdateFailureIEs} },

...

}

GNBDUConfigurationUpdateFailureIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

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

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

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

...

}

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

--

-- GNB-CU CONFIGURATION UPDATE ELEMENTARY PROCEDURE

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

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--

-- GNB-CU CONFIGURATION UPDATE

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

GNBCUConfigurationUpdate ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { GNBCUConfigurationUpdateIEs} },

...

}

GNBCUConfigurationUpdateIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-Cells-to-be-Activated-List CRITICALITY reject TYPE Cells-to-be-Activated-List PRESENCE optional }|

{ ID id-Cells-to-be-Deactivated-List CRITICALITY reject TYPE Cells-to-be-Deactivated-List PRESENCE optional }|

{ ID id-GNB-CU-TNL-Association-To-Add-List CRITICALITY ignore TYPE GNB-CU-TNL-Association-To-Add-List PRESENCE optional }|

{ ID id-GNB-CU-TNL-Association-To-Remove-List CRITICALITY ignore TYPE GNB-CU-TNL-Association-To-Remove-List PRESENCE optional }|

{ ID id-GNB-CU-TNL-Association-To-Update-List CRITICALITY ignore TYPE GNB-CU-TNL-Association-To-Update-List PRESENCE optional }|

{ ID id-Cells-to-be-Barred-List CRITICALITY ignore TYPE Cells-to-be-Barred-List PRESENCE optional }|

{ ID id-Protected-EUTRA-Resources-List CRITICALITY reject TYPE Protected-EUTRA-Resources-List PRESENCE optional }|

{ ID id-Neighbour-Cell-Information-List CRITICALITY ignore TYPE Neighbour-Cell-Information-List PRESENCE optional }|

{ ID id-Transport-Layer-Address-Info CRITICALITY ignore TYPE Transport-Layer-Address-Info PRESENCE optional }|

{ ID id-UL-BH-Non-UP-Traffic-Mapping CRITICALITY reject TYPE UL-BH-Non-UP-Traffic-Mapping PRESENCE optional }|

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

{ ID id-CCO-Assistance-Information CRITICALITY ignore TYPE CCO-Assistance-Information PRESENCE optional }|

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

{ ID id-gNB-CU-Name CRITICALITY ignore TYPE GNB-CU-Name PRESENCE optional }|

{ ID id-Extended-GNB-CU-Name CRITICALITY ignore TYPE Extended-GNB-CU-Name PRESENCE optional },

...

}

Cells-to-be-Deactivated-List ::= SEQUENCE (SIZE(1.. maxCellingNBDU)) OF ProtocolIE-SingleContainer { { Cells-to-be-Deactivated-List-ItemIEs } }

GNB-CU-TNL-Association-To-Add-List ::= SEQUENCE (SIZE(1.. maxnoofTNLAssociations)) OF ProtocolIE-SingleContainer { { GNB-CU-TNL-Association-To-Add-ItemIEs } }

GNB-CU-TNL-Association-To-Remove-List ::= SEQUENCE (SIZE(1.. maxnoofTNLAssociations)) OF ProtocolIE-SingleContainer { { GNB-CU-TNL-Association-To-Remove-ItemIEs } }

GNB-CU-TNL-Association-To-Update-List ::= SEQUENCE (SIZE(1.. maxnoofTNLAssociations)) OF ProtocolIE-SingleContainer { { GNB-CU-TNL-Association-To-Update-ItemIEs } }

Cells-to-be-Barred-List ::= SEQUENCE(SIZE(1.. maxCellingNBDU)) OF ProtocolIE-SingleContainer { { Cells-to-be-Barred-ItemIEs } }

Cells-to-be-Deactivated-List-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-Cells-to-be-Deactivated-List-Item CRITICALITY reject TYPE Cells-to-be-Deactivated-List-Item PRESENCE mandatory },

...

}

GNB-CU-TNL-Association-To-Add-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-TNL-Association-To-Add-Item CRITICALITY ignore TYPE GNB-CU-TNL-Association-To-Add-Item PRESENCE mandatory },

...

}

GNB-CU-TNL-Association-To-Remove-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-TNL-Association-To-Remove-Item CRITICALITY ignore TYPE GNB-CU-TNL-Association-To-Remove-Item PRESENCE mandatory },

...

}

GNB-CU-TNL-Association-To-Update-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-TNL-Association-To-Update-Item CRITICALITY ignore TYPE GNB-CU-TNL-Association-To-Update-Item PRESENCE mandatory },

...

}

Cells-to-be-Barred-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-Cells-to-be-Barred-Item CRITICALITY ignore TYPE Cells-to-be-Barred-Item PRESENCE mandatory },

...

}

Protected-EUTRA-Resources-List ::= SEQUENCE (SIZE(1.. maxCellineNB)) OF ProtocolIE-SingleContainer { { Protected-EUTRA-Resources-ItemIEs } }

Protected-EUTRA-Resources-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-Protected-EUTRA-Resources-Item CRITICALITY reject TYPE Protected-EUTRA-Resources-Item PRESENCE mandatory},

...

}

Neighbour-Cell-Information-List ::= SEQUENCE (SIZE(1.. maxCellingNBDU)) OF ProtocolIE-SingleContainer { { Neighbour-Cell-Information-ItemIEs } }

Neighbour-Cell-Information-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-Neighbour-Cell-Information-Item CRITICALITY ignore TYPE Neighbour-Cell-Information-Item PRESENCE mandatory},

...

}

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

--

-- GNB-CU CONFIGURATION UPDATE ACKNOWLEDGE

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

GNBCUConfigurationUpdateAcknowledge ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { GNBCUConfigurationUpdateAcknowledgeIEs} },

...

}

GNBCUConfigurationUpdateAcknowledgeIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-Cells-Failed-to-be-Activated-List CRITICALITY reject TYPE Cells-Failed-to-be-Activated-List PRESENCE optional}|

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

{ ID id-GNB-CU-TNL-Association-Setup-List CRITICALITY ignore TYPE GNB-CU-TNL-Association-Setup-List PRESENCE optional }|

{ ID id-GNB-CU-TNL-Association-Failed-To-Setup-List CRITICALITY ignore TYPE GNB-CU-TNL-Association-Failed-To-Setup-List PRESENCE optional }|

{ ID id-Dedicated-SIDelivery-NeededUE-List CRITICALITY ignore TYPE Dedicated-SIDelivery-NeededUE-List PRESENCE optional }|

{ ID id-Transport-Layer-Address-Info CRITICALITY ignore TYPE Transport-Layer-Address-Info PRESENCE optional },

...

}

Cells-Failed-to-be-Activated-List ::= SEQUENCE (SIZE(1.. maxCellingNBDU)) OF ProtocolIE-SingleContainer { { Cells-Failed-to-be-Activated-List-ItemIEs } }

GNB-CU-TNL-Association-Setup-List ::= SEQUENCE (SIZE(1.. maxnoofTNLAssociations)) OF ProtocolIE-SingleContainer { { GNB-CU-TNL-Association-Setup-ItemIEs } }

GNB-CU-TNL-Association-Failed-To-Setup-List ::= SEQUENCE (SIZE(1.. maxnoofTNLAssociations)) OF ProtocolIE-SingleContainer { { GNB-CU-TNL-Association-Failed-To-Setup-ItemIEs } }

Cells-Failed-to-be-Activated-List-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-Cells-Failed-to-be-Activated-List-Item CRITICALITY reject TYPE Cells-Failed-to-be-Activated-List-Item PRESENCE mandatory },

...

}

GNB-CU-TNL-Association-Setup-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-TNL-Association-Setup-Item CRITICALITY ignore TYPE GNB-CU-TNL-Association-Setup-Item PRESENCE mandatory },

...

}

GNB-CU-TNL-Association-Failed-To-Setup-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-TNL-Association-Failed-To-Setup-Item CRITICALITY ignore TYPE GNB-CU-TNL-Association-Failed-To-Setup-Item PRESENCE mandatory },

...

}

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

--

-- GNB-CU CONFIGURATION UPDATE FAILURE

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

GNBCUConfigurationUpdateFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { GNBCUConfigurationUpdateFailureIEs} },

...

}

GNBCUConfigurationUpdateFailureIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

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

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

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

...

}

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

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-- GNB-DU RESOURCE COORDINATION REQUEST

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

GNBDUResourceCoordinationRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{GNBDUResourceCoordinationRequest-IEs}},

...

}

GNBDUResourceCoordinationRequest-IEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-RequestType CRITICALITY reject TYPE RequestType PRESENCE mandatory }|

{ ID id-EUTRA-NR-CellResourceCoordinationReq-Container CRITICALITY reject TYPE EUTRA-NR-CellResourceCoordinationReq-Container PRESENCE mandatory}|

{ ID id-IgnoreResourceCoordinationContainer CRITICALITY reject TYPE IgnoreResourceCoordinationContainer PRESENCE optional },

...

}

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

--

-- GNB-DU RESOURCE COORDINATION RESPONSE

--

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

GNBDUResourceCoordinationResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{GNBDUResourceCoordinationResponse-IEs}},

...

}

GNBDUResourceCoordinationResponse-IEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-EUTRA-NR-CellResourceCoordinationReqAck-Container CRITICALITY reject TYPE EUTRA-NR-CellResourceCoordinationReqAck-Container PRESENCE mandatory},

...

}

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

--

-- UE Context Setup ELEMENTARY PROCEDURE

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

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

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-- UE CONTEXT SETUP REQUEST

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

UEContextSetupRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { UEContextSetupRequestIEs} },

...

}

UEContextSetupRequestIEs 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 ignore TYPE GNB-DU-UE-F1AP-ID PRESENCE optional }|

{ ID id-SpCell-ID CRITICALITY reject TYPE NRCGI PRESENCE mandatory }|

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

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

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

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

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

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

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

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

{ ID id-DRBs-ToBeSetup-List CRITICALITY reject TYPE DRBs-ToBeSetup-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-RRCContainer CRITICALITY ignore TYPE RRCContainer PRESENCE optional }|

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

{ ID id-ServingPLMN CRITICALITY ignore TYPE PLMN-Identity PRESENCE optional }|

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

{ 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-new-gNB-CU-UE-F1AP-ID CRITICALITY reject TYPE GNB-DU-UE-F1AP-ID PRESENCE optional }|

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

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

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

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

{ ID id-ConfiguredBAPAddress CRITICALITY reject TYPE BAPAddress 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-ToBeSetup-List CRITICALITY reject TYPE SLDRBs-ToBeSetup-List PRESENCE optional }|

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

{ ID id-ManagementBasedMDTPLMNList CRITICALITY ignore TYPE MDTPLMNList PRESENCE optional }|

{ ID id-ServingNID CRITICALITY reject TYPE NID PRESENCE optional }|

{ ID id-F1CTransferPath CRITICALITY reject TYPE F1CTransferPath 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-SDTSessionInfoOld CRITICALITY ignore TYPE CG-SDTSessionInfo 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-UuRLCChannelToBeSetupList CRITICALITY reject TYPE UuRLCChannelToBeSetupList PRESENCE optional}|

{ ID id-PC5RLCChannelToBeSetupList CRITICALITY reject TYPE PC5RLCChannelToBeSetupList 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-UE-MulticastMRBs-ToBeSetup-List CRITICALITY reject TYPE UE-MulticastMRBs-ToBeSetup-List PRESENCE optional }|

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

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

...

}

Candidate-SpCell-List::= SEQUENCE (SIZE(1..maxnoofCandidateSpCells)) OF ProtocolIE-SingleContainer { { Candidate-SpCell-ItemIEs} }

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

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

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

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

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

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

ServingCellMO-List ::= SEQUENCE (SIZE(1..maxnoofServingCellMOs)) OF ProtocolIE-SingleContainer { { ServingCellMO-List-ItemIEs} }

Candidate-SpCell-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-Candidate-SpCell-Item CRITICALITY ignore TYPE Candidate-SpCell-Item PRESENCE mandatory },

...

}

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

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

...

}

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

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

...

}

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

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

...

}

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

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

...

}

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

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

...

}

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

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

...

}

ServingCellMO-List-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-ServingCellMO-List-Item CRITICALITY reject TYPE ServingCellMO-List-Item PRESENCE mandatory},

...

}

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

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-- UE CONTEXT SETUP RESPONSE

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

UEContextSetupResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { UEContextSetupResponseIEs} },

...

}

UEContextSetupResponseIEs 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-DUtoCURRCInformation CRITICALITY reject TYPE DUtoCURRCInformation PRESENCE mandatory }|

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

{ ID id-ServingCellMO-encoded-in-CGC-List CRITICALITY ignore TYPE ServingCellMO-encoded-in-CGC-List PRESENCE optional}|

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

...

}

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

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

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

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

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

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

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

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

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

...

}

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

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

...

}

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

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

...

}

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

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

...

}

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

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

...

}

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

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

...

}

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

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

...

}

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

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

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

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

...

}

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

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

...

}

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

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

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

...

}

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

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-- UE CONTEXT SETUP FAILURE

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

UEContextSetupFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { UEContextSetupFailureIEs} },

...

}

UEContextSetupFailureIEs 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 ignore TYPE GNB-DU-UE-F1AP-ID PRESENCE optional }|

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

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

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

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

...

}

Potential-SpCell-List::= SEQUENCE (SIZE(0..maxnoofPotentialSpCells)) OF ProtocolIE-SingleContainer { { Potential-SpCell-ItemIEs} }

Potential-SpCell-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-Potential-SpCell-Item CRITICALITY ignore TYPE Potential-SpCell-Item PRESENCE mandatory },

...

}

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

--

-- UE Context Release Request ELEMENTARY PROCEDURE

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

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

--

-- UE Context Release Request

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

UEContextReleaseRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ UEContextReleaseRequestIEs}},

...

}

UEContextReleaseRequestIEs 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-targetCellsToCancel CRITICALITY reject TYPE TargetCellList PRESENCE optional },

...

}

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

--

-- UE Context Release (gNB-CU initiated) ELEMENTARY PROCEDURE

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

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

--

-- UE CONTEXT RELEASE COMMAND

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

UEContextReleaseCommand ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { UEContextReleaseCommandIEs} },

...

}

UEContextReleaseCommandIEs 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-RRCContainer CRITICALITY ignore TYPE RRCContainer PRESENCE optional }|

{ ID id-SRBID CRITICALITY ignore TYPE SRBID PRESENCE conditional }|

{ ID id-oldgNB-DU-UE-F1AP-ID CRITICALITY ignore TYPE GNB-DU-UE-F1AP-ID PRESENCE optional }|

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

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

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

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

{ ID id-CG-SDTKeptIndicator CRITICALITY ignore TYPE CG-SDTKeptIndicator PRESENCE optional},

...

}

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

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-- UE CONTEXT RELEASE COMPLETE

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

UEContextReleaseComplete ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { UEContextReleaseCompleteIEs} },

...

}

UEContextReleaseCompleteIEs 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-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },

...

}

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

--

-- UE Context Modification ELEMENTARY PROCEDURE

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

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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-UplinkTxDirectCurrentTwoCarrierListInfo CRITICALITY ignore TYPE UplinkTxDirectCurrentTwoCarrierListInfo 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-atModify-List CRITICALITY reject TYPE UE-MulticastMRBs-ToBeSetup-atModify-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 }|

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

{ ID id-DAPS-HO-Status CRITICALITY ignore TYPE DAPS-HO-Status PRESENCE optional }|

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

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

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

{ ID id-PathAdditionInformation CRITICALITY ignore TYPE PathAdditionInformation 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-ToBeSetup-atModify-List ::= SEQUENCE (SIZE(1..maxnoofMRBsforUE)) OF

ProtocolIE-SingleContainer { { UE-MulticastMRBs-ToBeSetup-atModify-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-ToBeSetup-atModify-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-UE-MulticastMRBs-ToBeSetup-atModify-Item CRITICALITY reject TYPE UE-MulticastMRBs-ToBeSetup-atModify-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}|

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

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

{ ID id-ServingCellMO-encoded-in-CGC-List CRITICALITY ignore TYPE ServingCellMO-encoded-in-CGC-List 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-MulticastMRBs-Setup-List ::= SEQUENCE (SIZE(1..maxnoofMRBsforUE)) OF ProtocolIE-SingleContainer { { UE-MulticastMRBs-Setup-ItemIEs } }

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

{ ID id-UE-MulticastMRBs-Setup-Item CRITICALITY reject TYPE UE-MulticastMRBs-Setup-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

--

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

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

--

-- 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

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

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},

...

}

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

--

-- UE CONTEXT MODIFICATION REFUSE

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

UEContextModificationRefuse::= SEQUENCE {

protocolIEs ProtocolIE-Container { { UEContextModificationRefuseIEs} },

...

}

UEContextModificationRefuseIEs 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 },

...

}

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

--

-- WRITE-REPLACE WARNING ELEMENTARY PROCEDURE

--

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

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

--

-- Write-Replace Warning Request

--

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

WriteReplaceWarningRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {WriteReplaceWarningRequestIEs} },

...

}

WriteReplaceWarningRequestIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-PWSSystemInformation CRITICALITY reject TYPE PWSSystemInformation PRESENCE mandatory }|

{ ID id-RepetitionPeriod CRITICALITY reject TYPE RepetitionPeriod PRESENCE mandatory }|

{ ID id-NumberofBroadcastRequest CRITICALITY reject TYPE NumberofBroadcastRequest PRESENCE mandatory }|

{ ID id-Cells-To-Be-Broadcast-List CRITICALITY reject TYPE Cells-To-Be-Broadcast-List PRESENCE optional },

...

}

Cells-To-Be-Broadcast-List ::= SEQUENCE (SIZE(1.. maxCellingNBDU)) OF ProtocolIE-SingleContainer { { Cells-To-Be-Broadcast-List-ItemIEs } }

Cells-To-Be-Broadcast-List-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-Cells-To-Be-Broadcast-Item CRITICALITY reject TYPE Cells-To-Be-Broadcast-Item PRESENCE mandatory },

...

}

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

--

-- Write-Replace Warning Response

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

WriteReplaceWarningResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {WriteReplaceWarningResponseIEs} },

...

}

WriteReplaceWarningResponseIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-Cells-Broadcast-Completed-List CRITICALITY reject TYPE Cells-Broadcast-Completed-List PRESENCE optional }|

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

{ ID id-Dedicated-SIDelivery-NeededUE-List CRITICALITY ignore TYPE Dedicated-SIDelivery-NeededUE-List PRESENCE optional },

...

}

Cells-Broadcast-Completed-List ::= SEQUENCE (SIZE(1.. maxCellingNBDU)) OF ProtocolIE-SingleContainer { { Cells-Broadcast-Completed-List-ItemIEs } }

Cells-Broadcast-Completed-List-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-Cells-Broadcast-Completed-Item CRITICALITY reject TYPE Cells-Broadcast-Completed-Item PRESENCE mandatory },

...

}

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

--

-- PWS CANCEL ELEMENTARY PROCEDURE

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

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

--

-- PWS Cancel Request

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

PWSCancelRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {PWSCancelRequestIEs} },

...

}

PWSCancelRequestIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-NumberofBroadcastRequest CRITICALITY reject TYPE NumberofBroadcastRequest PRESENCE mandatory }|

{ ID id-Broadcast-To-Be-Cancelled-List CRITICALITY reject TYPE Broadcast-To-Be-Cancelled-List PRESENCE optional }|

{ ID id-Cancel-all-Warning-Messages-Indicator CRITICALITY reject TYPE Cancel-all-Warning-Messages-Indicator PRESENCE optional }|

{ ID id-NotificationInformation CRITICALITY reject TYPE NotificationInformation PRESENCE optional},

...

}

Broadcast-To-Be-Cancelled-List ::= SEQUENCE (SIZE(1.. maxCellingNBDU)) OF ProtocolIE-SingleContainer { { Broadcast-To-Be-Cancelled-List-ItemIEs } }

Broadcast-To-Be-Cancelled-List-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-Broadcast-To-Be-Cancelled-Item CRITICALITY reject TYPE Broadcast-To-Be-Cancelled-Item PRESENCE mandatory },

...

}

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

--

-- PWS Cancel Response

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

PWSCancelResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {PWSCancelResponseIEs} },

...

}

PWSCancelResponseIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-Cells-Broadcast-Cancelled-List CRITICALITY reject TYPE Cells-Broadcast-Cancelled-List PRESENCE optional }|

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

...

}

Cells-Broadcast-Cancelled-List ::= SEQUENCE (SIZE(1.. maxCellingNBDU)) OF ProtocolIE-SingleContainer { { Cells-Broadcast-Cancelled-List-ItemIEs } }

Cells-Broadcast-Cancelled-List-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-Cells-Broadcast-Cancelled-Item CRITICALITY reject TYPE Cells-Broadcast-Cancelled-Item PRESENCE mandatory },

...

}

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

--

-- UE Inactivity Notification ELEMENTARY PROCEDURE

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

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

--

-- UE Inactivity Notification

--

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

UEInactivityNotification ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ UEInactivityNotificationIEs}},

...

}

UEInactivityNotificationIEs 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-DRB-Activity-List CRITICALITY reject TYPE DRB-Activity-List PRESENCE mandatory }|

{ ID id-SDT-Termination-Request CRITICALITY ignore TYPE SDT-Termination-Request PRESENCE optional },

...

}

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

DRB-Activity-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-DRB-Activity-Item CRITICALITY reject TYPE DRB-Activity-Item PRESENCE mandatory},

...

}

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

--

-- Initial UL RRC Message Transfer ELEMENTARY PROCEDURE

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

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

--

-- INITIAL UL RRC Message Transfer

--

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

InitialULRRCMessageTransfer ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ InitialULRRCMessageTransferIEs}},

...

}

InitialULRRCMessageTransferIEs F1AP-PROTOCOL-IES ::= {

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

{ ID id-NRCGI CRITICALITY reject TYPE NRCGI PRESENCE mandatory }|

{ ID id-C-RNTI CRITICALITY reject TYPE C-RNTI PRESENCE mandatory }|

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

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

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

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

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

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

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

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

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

...

}

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

--

-- DL RRC Message Transfer ELEMENTARY PROCEDURE

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

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

--

-- DL RRC Message Transfer

--

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

DLRRCMessageTransfer ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ DLRRCMessageTransferIEs}},

...

}

DLRRCMessageTransferIEs 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-oldgNB-DU-UE-F1AP-ID CRITICALITY reject TYPE GNB-DU-UE-F1AP-ID PRESENCE optional }|

{ ID id-SRBID CRITICALITY reject TYPE SRBID PRESENCE mandatory }|

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

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

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

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

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

{ ID id-RedirectedRRCmessage CRITICALITY reject TYPE OCTET STRING PRESENCE optional }|

{ ID id-PLMNAssistanceInfoForNetShar CRITICALITY ignore TYPE PLMN-Identity PRESENCE optional }|

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

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

{ ID id-SRBMappingInfo CRITICALITY ignore TYPE UuRLCChannelID PRESENCE optional },

...

}

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

--

-- UL RRC Message Transfer ELEMENTARY PROCEDURE

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

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

--

-- UL RRC Message Transfer

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

ULRRCMessageTransfer ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ ULRRCMessageTransferIEs}},

...

}

ULRRCMessageTransferIEs 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-SRBID CRITICALITY reject TYPE SRBID PRESENCE mandatory }|

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

{ ID id-SelectedPLMNID CRITICALITY reject TYPE PLMN-Identity PRESENCE optional }|

{ ID id-new-gNB-DU-UE-F1AP-ID CRITICALITY reject TYPE GNB-DU-UE-F1AP-ID PRESENCE optional },

...

}

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

--

-- PRIVATE MESSAGE

--

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

PrivateMessage ::= SEQUENCE {

privateIEs PrivateIE-Container {{PrivateMessage-IEs}},

...

}

PrivateMessage-IEs F1AP-PRIVATE-IES ::= {

...

}

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

--

-- System Information ELEMENTARY PROCEDURE

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

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

--

-- System information Delivery Command

--

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

SystemInformationDeliveryCommand ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ SystemInformationDeliveryCommandIEs}},

...

}

SystemInformationDeliveryCommandIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-NRCGI CRITICALITY reject TYPE NRCGI PRESENCE mandatory }|

{ ID id-SItype-List CRITICALITY reject TYPE SItype-List PRESENCE mandatory }|

{ ID id-ConfirmedUEID CRITICALITY reject TYPE GNB-DU-UE-F1AP-ID PRESENCE mandatory },

...

}

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

--

-- Paging PROCEDURE

--

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

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

--

-- Paging

--

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

Paging ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ PagingIEs}},

...

}

PagingIEs F1AP-PROTOCOL-IES ::= {

{ ID id-UEIdentityIndexValue CRITICALITY reject TYPE UEIdentityIndexValue PRESENCE mandatory }|

{ ID id-PagingIdentity CRITICALITY reject TYPE PagingIdentity PRESENCE mandatory }|

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

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

{ ID id-PagingCell-List CRITICALITY ignore TYPE PagingCell-list PRESENCE mandatory }|

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

{ ID id-RANUEPagingDRX CRITICALITY ignore TYPE PagingDRX PRESENCE optional }|

{ ID id-CNUEPagingDRX CRITICALITY ignore TYPE PagingDRX PRESENCE optional }|

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

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

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

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

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

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

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

...

}

PagingCell-list::= SEQUENCE (SIZE(1.. maxnoofPagingCells)) OF ProtocolIE-SingleContainer { { PagingCell-ItemIEs } }

PagingCell-ItemIEs F1AP-PROTOCOL-IES ::= {

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

...

}

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

--

-- Notify

--

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

Notify ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ NotifyIEs}},

...

}

NotifyIEs 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-DRB-Notify-List CRITICALITY reject TYPE DRB-Notify-List PRESENCE mandatory },

...

}

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

DRB-Notify-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-DRB-Notify-Item CRITICALITY reject TYPE DRB-Notify-Item PRESENCE mandatory},

...

}

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

--

-- NETWORK ACCESS RATE REDUCTION ELEMENTARY PROCEDURE

--

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

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

--

-- Network Access Rate Reduction

--

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

NetworkAccessRateReduction ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ NetworkAccessRateReductionIEs }},

...

}

NetworkAccessRateReductionIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-UAC-Assistance-Info CRITICALITY reject TYPE UAC-Assistance-Info PRESENCE mandatory },

...

}

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

--

-- PWS RESTART INDICATION ELEMENTARY PROCEDURE

--

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

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

--

-- PWS Restart Indication

--

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

PWSRestartIndication ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { PWSRestartIndicationIEs} },

...

}

PWSRestartIndicationIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-NR-CGI-List-For-Restart-List CRITICALITY reject TYPE NR-CGI-List-For-Restart-List PRESENCE mandatory },

...

}

NR-CGI-List-For-Restart-List ::= SEQUENCE (SIZE(1.. maxCellingNBDU)) OF ProtocolIE-SingleContainer { { NR-CGI-List-For-Restart-List-ItemIEs } }

NR-CGI-List-For-Restart-List-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-NR-CGI-List-For-Restart-Item CRITICALITY reject TYPE NR-CGI-List-For-Restart-Item PRESENCE mandatory },

...

}

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

--

-- PWS FAILURE INDICATION ELEMENTARY PROCEDURE

--

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

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

--

-- PWS Failure Indication

--

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

PWSFailureIndication ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { PWSFailureIndicationIEs} },

...

}

PWSFailureIndicationIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-PWS-Failed-NR-CGI-List CRITICALITY reject TYPE PWS-Failed-NR-CGI-List PRESENCE optional },

...

}

PWS-Failed-NR-CGI-List ::= SEQUENCE (SIZE(1.. maxCellingNBDU)) OF ProtocolIE-SingleContainer { { PWS-Failed-NR-CGI-List-ItemIEs } }

PWS-Failed-NR-CGI-List-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-PWS-Failed-NR-CGI-Item CRITICALITY reject TYPE PWS-Failed-NR-CGI-Item PRESENCE mandatory },

...

}

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

--

-- gNB-DU STATUS INDICATION ELEMENTARY PROCEDURE

--

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

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

--

-- gNB-DU Status Indication

--

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

GNBDUStatusIndication ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {GNBDUStatusIndicationIEs} },

...

}

GNBDUStatusIndicationIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-GNBDUOverloadInformation CRITICALITY reject TYPE GNBDUOverloadInformation PRESENCE mandatory }|

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

...

}

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

--

-- RRC Delivery Report ELEMENTARY PROCEDURE

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

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

--

-- RRC Delivery Report

--

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

RRCDeliveryReport ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ RRCDeliveryReportIEs}},

...

}

RRCDeliveryReportIEs 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-RRCDeliveryStatus CRITICALITY ignore TYPE RRCDeliveryStatus PRESENCE mandatory }|

{ ID id-SRBID CRITICALITY ignore TYPE SRBID PRESENCE mandatory },

...

}

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

--

-- F1 Removal ELEMENTARY PROCEDURE

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

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

--

-- F1 Removal Request

--

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

F1RemovalRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ F1RemovalRequestIEs }},

...

}

F1RemovalRequestIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory },

...

}

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

--

-- F1 Removal Response

--

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

F1RemovalResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ F1RemovalResponseIEs }},

...

}

F1RemovalResponseIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

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

...

}

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

--

-- F1 Removal Failure

--

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

F1RemovalFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ F1RemovalFailureIEs }},

...

}

F1RemovalFailureIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

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

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

...

}

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

--

-- TRACE ELEMENTARY PROCEDURES

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

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

--

-- TRACE START

--

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

TraceStart ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {TraceStartIEs} },

...

}

TraceStartIEs 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-TraceActivation CRITICALITY ignore TYPE TraceActivation PRESENCE mandatory },

...

}

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

--

-- DEACTIVATE TRACE

--

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

DeactivateTrace ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {DeactivateTraceIEs} },

...

}

DeactivateTraceIEs 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-TraceID CRITICALITY ignore TYPE TraceID PRESENCE mandatory },

...

}

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

--

-- CELL TRAFFIC TRACE

--

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

CellTrafficTrace ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {CellTrafficTraceIEs} },

...

}

CellTrafficTraceIEs 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-TraceID CRITICALITY ignore TYPE TraceID PRESENCE mandatory }|

{ID id-TraceCollectionEntityIPAddress CRITICALITY ignore TYPE TransportLayerAddress PRESENCE mandatory }|

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

{ID id-TraceCollectionEntityURI CRITICALITY ignore TYPE URI-address PRESENCE optional },

...

}

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

--

-- DU-CU Radio Information Transfer ELEMENTARY PROCEDURE

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

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

--

-- DU-CU Radio Information Transfer

--

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

DUCURadioInformationTransfer ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ DUCURadioInformationTransferIEs}},

...

}

DUCURadioInformationTransferIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-DUCURadioInformationType CRITICALITY ignore TYPE DUCURadioInformationType PRESENCE mandatory },

...

}

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

--

-- CU-DU Radio Information Transfer ELEMENTARY PROCEDURE

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

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

--

-- CU-DU Radio Information Transfer

--

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

CUDURadioInformationTransfer ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ CUDURadioInformationTransferIEs}},

...

}

CUDURadioInformationTransferIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-CUDURadioInformationType CRITICALITY ignore TYPE CUDURadioInformationType PRESENCE mandatory },

...

}

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

--

-- IAB PROCEDURES

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

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

--

-- BAP Mapping Configuration ELEMENTARY PROCEDURE

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

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

--

-- BAP MAPPING CONFIGURATION

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

BAPMappingConfiguration ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {BAPMappingConfiguration-IEs} },

...

}

BAPMappingConfiguration-IEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory}|

{ ID id-BH-Routing-Information-Added-List CRITICALITY ignore TYPE BH-Routing-Information-Added-List PRESENCE optional}|

{ ID id-BH-Routing-Information-Removed-List CRITICALITY ignore TYPE BH-Routing-Information-Removed-List PRESENCE optional}|

{ ID id-TrafficMappingInformation CRITICALITY ignore TYPE TrafficMappingInfo PRESENCE optional}|

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

{ ID id-BAP-Header-Rewriting-Added-List CRITICALITY ignore TYPE BAP-Header-Rewriting-Added-List PRESENCE optional}|

{ ID id-Re-routingEnableIndicator CRITICALITY ignore TYPE Re-routingEnableIndicator PRESENCE optional}|

{ ID id-BAP-Header-Rewriting-Removed-List CRITICALITY ignore TYPE BAP-Header-Rewriting-Removed-List PRESENCE optional},

...

}

BH-Routing-Information-Added-List ::= SEQUENCE (SIZE(1.. maxnoofRoutingEntries)) OF ProtocolIE-SingleContainer { { BH-Routing-Information-Added-List-ItemIEs } }

BH-Routing-Information-Removed-List ::= SEQUENCE (SIZE(1.. maxnoofRoutingEntries)) OF ProtocolIE-SingleContainer { { BH-Routing-Information-Removed-List-ItemIEs } }

BH-Routing-Information-Added-List-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-BH-Routing-Information-Added-List-Item CRITICALITY ignore TYPE BH-Routing-Information-Added-List-Item PRESENCE optional},

...

}

BH-Routing-Information-Removed-List-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-BH-Routing-Information-Removed-List-Item CRITICALITY ignore TYPE BH-Routing-Information-Removed-List-Item PRESENCE optional},

...

}

BAP-Header-Rewriting-Added-List ::= SEQUENCE (SIZE(1.. maxnoofRoutingEntries)) OF ProtocolIE-SingleContainer { { BAP-Header-Rewriting-Added-List-ItemIEs } }

BAP-Header-Rewriting-Added-List-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-BAP-Header-Rewriting-Added-List-Item CRITICALITY ignore TYPE BAP-Header-Rewriting-Added-List-Item PRESENCE optional},

...

}

BAP-Header-Rewriting-Removed-List ::= SEQUENCE (SIZE(1.. maxnoofRoutingEntries)) OF ProtocolIE-SingleContainer { { BAP-Header-Rewriting-Removed-List-ItemIEs } }

BAP-Header-Rewriting-Removed-List-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-BAP-Header-Rewriting-Removed-List-Item CRITICALITY ignore TYPE BAP-Header-Rewriting-Removed-List-Item PRESENCE optional},

...

}

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

--

-- BAP MAPPING CONFIGURATION ACKNOWLEDGE

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

BAPMappingConfigurationAcknowledge ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {BAPMappingConfigurationAcknowledge-IEs} },

...

}

BAPMappingConfigurationAcknowledge-IEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory}|

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

...

}

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

--

-- BAP MAPPING CONFIGURATION FAILURE

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

BAPMappingConfigurationFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BAPMappingConfigurationFailureIEs} },

...

}

BAPMappingConfigurationFailureIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

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

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

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

...

}

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

--

-- GNB-DU Configuration ELEMENTARY PROCEDURE

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

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

--

-- GNB-DU RESOURCE CONFIGURATION

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

GNBDUResourceConfiguration ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ GNBDUResourceConfigurationIEs}},

...

}

GNBDUResourceConfigurationIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-Activated-Cells-to-be-Updated-List CRITICALITY reject TYPE Activated-Cells-to-be-Updated-List PRESENCE optional}|

{ ID id-Child-Nodes-List CRITICALITY reject TYPE Child-Nodes-List PRESENCE optional}|

{ ID id-Neighbour-Node-Cells-List CRITICALITY reject TYPE Neighbour-Node-Cells-List PRESENCE optional}|

{ ID id-Serving-Cells-List CRITICALITY reject TYPE Serving-Cells-List PRESENCE optional},

...

}

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

--

-- GNB-DU RESOURCE CONFIGURATION ACKNOWLEDGE

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

GNBDUResourceConfigurationAcknowledge ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { GNBDUResourceConfigurationAcknowledgeIEs} },

...

}

GNBDUResourceConfigurationAcknowledgeIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

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

...

}

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

--

-- GNB-DU RESOURCE CONFIGURATION FAILURE

--

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

GNBDUResourceConfigurationFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { GNBDUResourceConfigurationFailureIEs} },

...

}

GNBDUResourceConfigurationFailureIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

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

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

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

...

}

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

--

-- IAB TNL Address Allocation ELEMENTARY PROCEDURE

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

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

--

-- IAB TNL ADDRESS REQUEST

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

IABTNLAddressRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {IABTNLAddressRequestIEs} },

...

}

IABTNLAddressRequestIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-IABv4AddressesRequested CRITICALITY reject TYPE IABv4AddressesRequested PRESENCE optional }|

{ ID id-IABIPv6RequestType CRITICALITY reject TYPE IABIPv6RequestType PRESENCE optional }|

{ ID id-IAB-TNL-Addresses-To-Remove-List CRITICALITY reject TYPE IAB-TNL-Addresses-To-Remove-List PRESENCE optional }|

{ ID id-IAB-TNL-Addresses-Exception CRITICALITY reject TYPE IAB-TNL-Addresses-Exception PRESENCE optional },

...

}

IAB-TNL-Addresses-To-Remove-List ::= SEQUENCE (SIZE(1..maxnoofTLAsIAB)) OF ProtocolIE-SingleContainer { { IAB-TNL-Addresses-To-Remove-ItemIEs } }

IAB-TNL-Addresses-To-Remove-ItemIEs F1AP-PROTOCOL-IES::= {

{ ID id-IAB-TNL-Addresses-To-Remove-Item CRITICALITY reject TYPE IAB-TNL-Addresses-To-Remove-Item PRESENCE mandatory},

...

}

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

--

-- IAB TNL ADDRESS RESPONSE

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

IABTNLAddressResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {IABTNLAddressResponseIEs} },

...

}

IABTNLAddressResponseIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-IAB-Allocated-TNL-Address-List CRITICALITY reject TYPE IAB-Allocated-TNL-Address-List PRESENCE mandatory },

...

}

IAB-Allocated-TNL-Address-List ::= SEQUENCE (SIZE(1.. maxnoofTLAsIAB)) OF ProtocolIE-SingleContainer { { IAB-Allocated-TNL-Address-List-ItemIEs } }

IAB-Allocated-TNL-Address-List-ItemIEs F1AP-PROTOCOL-IES::= {

{ ID id-IAB-Allocated-TNL-Address-Item CRITICALITY reject TYPE IAB-Allocated-TNL-Address-Item PRESENCE mandatory},

...

}

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

--

-- IAB TNL ADDRESS FAILURE

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

IABTNLAddressFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { IABTNLAddressFailureIEs} },

...

}

IABTNLAddressFailureIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

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

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

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

...

}

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

--

-- IAB UP Configuration Update ELEMENTARY PROCEDURE

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

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

--

-- IAB UP Configuration Update Request

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

IABUPConfigurationUpdateRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { IABUPConfigurationUpdateRequestIEs} },

...

}

IABUPConfigurationUpdateRequestIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-UL-UP-TNL-Information-to-Update-List CRITICALITY ignore TYPE UL-UP-TNL-Information-to-Update-List PRESENCE optional }|

{ ID id-UL-UP-TNL-Address-to-Update-List CRITICALITY ignore TYPE UL-UP-TNL-Address-to-Update-List PRESENCE optional },

...

}

UL-UP-TNL-Information-to-Update-List ::= SEQUENCE (SIZE(1.. maxnoofULUPTNLInformationforIAB)) OF ProtocolIE-SingleContainer { { UL-UP-TNL-Information-to-Update-List-ItemIEs } }

UL-UP-TNL-Information-to-Update-List-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-UL-UP-TNL-Information-to-Update-List-Item CRITICALITY ignore TYPE UL-UP-TNL-Information-to-Update-List-Item PRESENCE mandatory },

...

}

UL-UP-TNL-Address-to-Update-List ::= SEQUENCE (SIZE(1.. maxnoofUPTNLAddresses)) OF ProtocolIE-SingleContainer { { UL-UP-TNL-Address-to-Update-List-ItemIEs } }

UL-UP-TNL-Address-to-Update-List-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-UL-UP-TNL-Address-to-Update-List-Item CRITICALITY ignore TYPE UL-UP-TNL-Address-to-Update-List-Item PRESENCE mandatory },

...

}

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

--

-- IAB UP Configuration Update Response

--

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

IABUPConfigurationUpdateResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { IABUPConfigurationUpdateResponseIEs} },

...

}

IABUPConfigurationUpdateResponseIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

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

{ ID id-DL-UP-TNL-Address-to-Update-List CRITICALITY reject TYPE DL-UP-TNL-Address-to-Update-List PRESENCE optional },

...

}

DL-UP-TNL-Address-to-Update-List ::= SEQUENCE (SIZE(1.. maxnoofUPTNLAddresses)) OF ProtocolIE-SingleContainer { { DL-UP-TNL-Address-to-Update-List-ItemIEs } }

DL-UP-TNL-Address-to-Update-List-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-DL-UP-TNL-Address-to-Update-List-Item CRITICALITY ignore TYPE DL-UP-TNL-Address-to-Update-List-Item PRESENCE mandatory },

...

}

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

--

-- IAB UP Configuration Update Failure

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

IABUPConfigurationUpdateFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { IABUPConfigurationUpdateFailureIEs} },

...

}

IABUPConfigurationUpdateFailureIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

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

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

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

...

}

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

--

-- Resource Status Reporting Initiation ELEMENTARY PROCEDURE

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

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

--

-- Resource Status Request

--

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

ResourceStatusRequest::= SEQUENCE {

protocolIEs ProtocolIE-Container { {ResourceStatusRequestIEs} },

...

}

ResourceStatusRequestIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-gNBCUMeasurementID CRITICALITY reject TYPE GNBCUMeasurementID PRESENCE mandatory }|

{ ID id-gNBDUMeasurementID CRITICALITY ignore TYPE GNBDUMeasurementID PRESENCE conditional }|

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

{ ID id-ReportCharacteristics CRITICALITY ignore TYPE ReportCharacteristics PRESENCE conditional }|

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

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

...

}

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

--

-- Resource Status Response

--

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

ResourceStatusResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { ResourceStatusResponseIEs} },

...

}

ResourceStatusResponseIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-gNBCUMeasurementID CRITICALITY reject TYPE GNBCUMeasurementID PRESENCE mandatory }|

{ ID id-gNBDUMeasurementID CRITICALITY ignore TYPE GNBDUMeasurementID PRESENCE mandatory }|

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

...

}

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

--

-- Resource Status Failure

--

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

ResourceStatusFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { ResourceStatusFailureIEs} },

...

}

ResourceStatusFailureIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-gNBCUMeasurementID CRITICALITY reject TYPE GNBCUMeasurementID PRESENCE mandatory }|

{ ID id-gNBDUMeasurementID CRITICALITY ignore TYPE GNBDUMeasurementID PRESENCE mandatory }|

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

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

...

}

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

--

-- Resource Status Reporting ELEMENTARY PROCEDURE

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

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

--

-- Resource Status Update

--

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

ResourceStatusUpdate ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ ResourceStatusUpdateIEs}},

...

}

ResourceStatusUpdateIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-gNBCUMeasurementID CRITICALITY reject TYPE GNBCUMeasurementID PRESENCE mandatory }|

{ ID id-gNBDUMeasurementID CRITICALITY ignore TYPE GNBDUMeasurementID PRESENCE mandatory }|

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

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

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

...

}

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

--

-- Access And Mobility Indication ELEMENTARY PROCEDURE

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

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

--

-- Access And Mobility Indication

--

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

AccessAndMobilityIndication ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { AccessAndMobilityIndicationIEs} },

...

}

AccessAndMobilityIndicationIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

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

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

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

...

}

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

--

-- REFERENCE TIME INFORMATION REPORTING CONTROL

--

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

ReferenceTimeInformationReportingControl::= SEQUENCE {

protocolIEs ProtocolIE-Container { { ReferenceTimeInformationReportingControlIEs} },

...

}

ReferenceTimeInformationReportingControlIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-ReportingRequestType CRITICALITY reject TYPE ReportingRequestType PRESENCE mandatory },

...

}

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

--

-- REFERENCE TIME INFORMATION REPORT

--

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

ReferenceTimeInformationReport::= SEQUENCE {

protocolIEs ProtocolIE-Container { { ReferenceTimeInformationReportIEs} },

...

}

ReferenceTimeInformationReportIEs F1AP-PROTOCOL-IES ::= {

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

{ ID id-TimeReferenceInformation CRITICALITY ignore TYPE TimeReferenceInformation PRESENCE mandatory },

...

}

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

--

-- Access Success

--

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

AccessSuccess ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ AccessSuccessIEs}},

...

}

AccessSuccessIEs 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-NRCGI CRITICALITY reject TYPE NRCGI PRESENCE mandatory },

...

}

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

--

-- POSITIONING ASSISTANCE INFORMATION CONTROL ELEMENTARY PROCEDURE

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

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

--

-- Positioning Assistance Information Control

--

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

PositioningAssistanceInformationControl ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ PositioningAssistanceInformationControlIEs}},

...

}

PositioningAssistanceInformationControlIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-PosAssistance-Information CRITICALITY reject TYPE PosAssistance-Information PRESENCE optional}|

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

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

{ ID id-RoutingID CRITICALITY reject TYPE RoutingID PRESENCE optional},

...

}

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

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-- POSITIONING ASSISTANCE INFORMATION FEEDBACK ELEMENTARY PROCEDURE

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

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

--

-- Positioning Assistance Information Feedback

--

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

PositioningAssistanceInformationFeedback ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ PositioningAssistanceInformationFeedbackIEs}},

...

}

PositioningAssistanceInformationFeedbackIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

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

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

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

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

...

}

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

--

-- POSITONING MEASUREMENT EXCHANGE ELEMENTARY PROCEDURE

--

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

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

--

-- Positioning Measurement Request

--

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

PositioningMeasurementRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { PositioningMeasurementRequestIEs} },

...

}

PositioningMeasurementRequestIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory}|

{ ID id-LMF-MeasurementID CRITICALITY reject TYPE LMF-MeasurementID PRESENCE mandatory}|

{ ID id-RAN-MeasurementID CRITICALITY reject TYPE RAN-MeasurementID PRESENCE mandatory}|

{ ID id-TRP-MeasurementRequestList CRITICALITY reject TYPE TRP-MeasurementRequestList PRESENCE mandatory}|

{ ID id-PosReportCharacteristics CRITICALITY reject TYPE PosReportCharacteristics PRESENCE mandatory}|

{ ID id-PosMeasurementPeriodicity CRITICALITY reject TYPE MeasurementPeriodicity PRESENCE conditional }|

-- The above IE shall be present if the PosReportCharacteristics IE is set to “periodic” --

{ ID id-PosMeasurementQuantities CRITICALITY reject TYPE PosMeasurementQuantities PRESENCE mandatory}|

{ ID id-SFNInitialisationTime CRITICALITY ignore TYPE RelativeTime1900 PRESENCE optional }|

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

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

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

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

{ ID id-PosMeasurementPeriodicityExtended CRITICALITY reject TYPE MeasurementPeriodicityExtended PRESENCE conditional }|

-- The IE shall be present the MeasurementPeriodicity IE is set to the value "extended"

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

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

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

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

...

}

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

--

-- Positioning Measurement Response

--

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

PositioningMeasurementResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { PositioningMeasurementResponseIEs} },

...

}

PositioningMeasurementResponseIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory}|

{ ID id-LMF-MeasurementID CRITICALITY reject TYPE LMF-MeasurementID PRESENCE mandatory}|

{ ID id-RAN-MeasurementID CRITICALITY reject TYPE RAN-MeasurementID PRESENCE mandatory}|

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

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

...

}

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

--

-- Positioning Measurement Failure

--

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

PositioningMeasurementFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { PositioningMeasurementFailureIEs} },

...

}

PositioningMeasurementFailureIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-LMF-MeasurementID CRITICALITY reject TYPE LMF-MeasurementID PRESENCE mandatory }|

{ ID id-RAN-MeasurementID CRITICALITY reject TYPE RAN-MeasurementID PRESENCE mandatory }|

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

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

...

}

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

--

-- POSITIONING MEASUREMENT REPORT ELEMENTARY PROCEDURE

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

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

--

-- Positioning Measurement Report

--

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

PositioningMeasurementReport ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { PositioningMeasurementReportIEs} },

...

}

PositioningMeasurementReportIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-LMF-MeasurementID CRITICALITY reject TYPE LMF-MeasurementID PRESENCE mandatory }|

{ ID id-RAN-MeasurementID CRITICALITY reject TYPE RAN-MeasurementID PRESENCE mandatory }|

{ ID id-PosMeasurementResultList CRITICALITY reject TYPE PosMeasurementResultList PRESENCE mandatory },

...

}

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

--

-- POSITIONING MEASUREMENT ABORT ELEMENTARY PROCEDURE

--

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

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--

-- Positioning Measurement Abort

--

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

PositioningMeasurementAbort ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { PositioningMeasurementAbortIEs} },

...

}

PositioningMeasurementAbortIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-LMF-MeasurementID CRITICALITY reject TYPE LMF-MeasurementID PRESENCE mandatory }|

{ ID id-RAN-MeasurementID CRITICALITY reject TYPE RAN-MeasurementID PRESENCE mandatory },

...

}

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

--

-- POSITIONING MEASUREMENT FAILURE INDICATION ELEMENTARY PROCEDURE

--

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

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

--

-- Positioning Measurement Failure Indication

--

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

PositioningMeasurementFailureIndication ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { PositioningMeasurementFailureIndicationIEs} },

...

}

PositioningMeasurementFailureIndicationIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-LMF-MeasurementID CRITICALITY reject TYPE LMF-MeasurementID PRESENCE mandatory }|

{ ID id-RAN-MeasurementID CRITICALITY reject TYPE RAN-MeasurementID PRESENCE mandatory }|

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

...

}

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

--

-- POSITIONING MEASUREMENT UPDATE ELEMENTARY PROCEDURE

--

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

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--

-- Positioning Measurement Update

--

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

PositioningMeasurementUpdate ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { PositioningMeasurementUpdateIEs} },

...

}

PositioningMeasurementUpdateIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-LMF-MeasurementID CRITICALITY reject TYPE LMF-MeasurementID PRESENCE mandatory }|

{ ID id-RAN-MeasurementID CRITICALITY reject TYPE RAN-MeasurementID PRESENCE mandatory }|

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

{ ID id-TRP-MeasurementUpdateList CRITICALITY reject TYPE TRP-MeasurementUpdateList PRESENCE optional}|

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

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

...

}

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

--

-- TRP INFORMATION EXCHANGE ELEMENTARY PROCEDURE

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

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--

-- TRP Information Request

--

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

TRPInformationRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { TRPInformationRequestIEs} },

...

}

TRPInformationRequestIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

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

{ ID id-TRPInformationTypeListTRPReq CRITICALITY reject TYPE TRPInformationTypeListTRPReq PRESENCE mandatory },

...

}

TRPInformationTypeListTRPReq ::= SEQUENCE (SIZE(1.. maxnoofTRPInfoTypes)) OF ProtocolIE-SingleContainer { { TRPInformationTypeItemTRPReq } }

TRPInformationTypeItemTRPReq F1AP-PROTOCOL-IES ::= {

{ ID id-TRPInformationTypeItem CRITICALITY reject TYPE TRPInformationTypeItem PRESENCE mandatory },

...

}

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

--

-- TRP Information Response

--

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

TRPInformationResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { TRPInformationResponseIEs} },

...

}

TRPInformationResponseIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

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

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

...

}

TRPInformationListTRPResp ::= SEQUENCE (SIZE(1.. maxnoofTRPs)) OF ProtocolIE-SingleContainer { { TRPInformationItemTRPResp } }

TRPInformationItemTRPResp F1AP-PROTOCOL-IES ::= {

{ ID id-TRPInformationItem CRITICALITY ignore TYPE TRPInformationItem PRESENCE mandatory },

...

}

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

--

-- TRP Information Failure

--

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

TRPInformationFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { TRPInformationFailureIEs} },

...

}

TRPInformationFailureIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

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

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

...

}

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

--

-- POSITIONING INFORMATION EXCHANGE ELEMENTARY PROCEDURE

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

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

--

-- Positioning Information Request

--

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

PositioningInformationRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { PositioningInformationRequestIEs} },

...

}

PositioningInformationRequestIEs 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-RequestedSRSTransmissionCharacteristics CRITICALITY ignore TYPE RequestedSRSTransmissionCharacteristics PRESENCE optional}|

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

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

...

}

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

--

-- Positioning Information Response

--

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

PositioningInformationResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { PositioningInformationResponseIEs} },

...

}

PositioningInformationResponseIEs 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-SRSConfiguration CRITICALITY ignore TYPE SRSConfiguration PRESENCE optional}|

{ ID id-SFNInitialisationTime CRITICALITY ignore TYPE RelativeTime1900 PRESENCE optional}|

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

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

...

}

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

--

-- Positioning Information Failure

--

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

PositioningInformationFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { PositioningInformationFailureIEs} },

...

}

PositioningInformationFailureIEs 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 },

...

}

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

--

-- POSITIONING ACTIVATION PROCEDURE

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

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

--

-- Positioning Activation Request

--

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

PositioningActivationRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { PositioningActivationRequestIEs} },

...

}

PositioningActivationRequestIEs 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-SRSType CRITICALITY reject TYPE SRSType PRESENCE mandatory }|

{ ID id-ActivationTime CRITICALITY ignore TYPE RelativeTime1900 PRESENCE optional },

...

}

SRSType ::= CHOICE {

semipersistentSRS SemipersistentSRS,

aperiodicSRS AperiodicSRS,

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

}

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

...

}

SemipersistentSRS ::= SEQUENCE {

sRSResourceSetID SRSResourceSetID,

sRSSpatialRelation SpatialRelationInfo OPTIONAL,

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

...

}

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

{ ID id-SRSSpatialRelationPerSRSResource CRITICALITY ignore EXTENSION SpatialRelationPerSRSResource PRESENCE optional},

...

}

AperiodicSRS ::= SEQUENCE {

aperiodic ENUMERATED {true, ...},

sRSResourceTrigger SRSResourceTrigger OPTIONAL,

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

...

}

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

...

}

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

--

-- Positioning Activation Response

--

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

PositioningActivationResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { PositioningActivationResponseIEs} },

...

}

PositioningActivationResponseIEs 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-SystemFrameNumber CRITICALITY ignore TYPE SystemFrameNumber PRESENCE optional }|

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

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

...

}

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

--

-- Positioning Activation Failure

--

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

PositioningActivationFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { PositioningActivationFailureIEs} },

...

}

PositioningActivationFailureIEs 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 },

...

}

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

--

-- POSITIONING DEACTIVATION PROCEDURE

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

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

--

-- Positioning Deactivation

--

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

PositioningDeactivation ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { PositioningDeactivationIEs} },

...

}

PositioningDeactivationIEs 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-AbortTransmission CRITICALITY ignore TYPE AbortTransmission PRESENCE mandatory },

...

}

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

--

-- POSITIONING INFORMATION UPDATE PROCEDURE

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

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

--

-- Positioning Information Update

--

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

PositioningInformationUpdate ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { PositioningInformationUpdateIEs} },

...

}

PositioningInformationUpdateIEs 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-SRSConfiguration CRITICALITY ignore TYPE SRSConfiguration PRESENCE optional}|

{ ID id-SFNInitialisationTime CRITICALITY ignore TYPE RelativeTime1900 PRESENCE optional},

...

}

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

--

-- E-CID MEASUREMENT PROCEDURE

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

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

--

-- E-CID Measurement Initiation Request

--

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

E-CIDMeasurementInitiationRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{E-CIDMeasurementInitiationRequest-IEs}},

...

}

E-CIDMeasurementInitiationRequest-IEs 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-LMF-UE-MeasurementID CRITICALITY reject TYPE LMF-UE-MeasurementID PRESENCE mandatory }|

{ ID id-RAN-UE-MeasurementID CRITICALITY reject TYPE RAN-UE-MeasurementID PRESENCE mandatory }|

{ ID id-E-CID-ReportCharacteristics CRITICALITY reject TYPE E-CID-ReportCharacteristics PRESENCE mandatory }|

{ ID id-E-CID-MeasurementPeriodicity CRITICALITY reject TYPE MeasurementPeriodicity PRESENCE conditional }|

-- The above IE shall be present if the E-CID-ReportCharacteristics IE is set to “periodic” –-

{ ID id-E-CID-MeasurementQuantities CRITICALITY reject TYPE E-CID-MeasurementQuantities PRESENCE mandatory}|

{ ID id-PosMeasurementPeriodicityNR-AoA CRITICALITY reject TYPE PosMeasurementPeriodicityNR-AoA PRESENCE conditional},

-- The IE shall be present if the E-CID-ReportCharacteristics IE is set to “periodic” and the E-CID-MeasurementQuantities-Item IE in the E-CID-MeasurementQuantities IE is set to the value "angleOfArrivalNR"--

...

}

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

--

-- E-CID Measurement Initiation Response

--

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

E-CIDMeasurementInitiationResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{E-CIDMeasurementInitiationResponse-IEs}},

...

}

E-CIDMeasurementInitiationResponse-IEs 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-LMF-UE-MeasurementID CRITICALITY reject TYPE LMF-UE-MeasurementID PRESENCE mandatory }|

{ ID id-RAN-UE-MeasurementID CRITICALITY reject TYPE RAN-UE-MeasurementID PRESENCE mandatory }|

{ ID id-E-CID-MeasurementResult CRITICALITY ignore TYPE E-CID-MeasurementResult PRESENCE optional}|

{ ID id-Cell-Portion-ID CRITICALITY ignore TYPE Cell-Portion-ID PRESENCE optional}|

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

...

}

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

--

-- E-CID Measurement Initiation Failure

--

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

E-CIDMeasurementInitiationFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{E-CIDMeasurementInitiationFailure-IEs}},

...

}

E-CIDMeasurementInitiationFailure-IEs 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-LMF-UE-MeasurementID CRITICALITY reject TYPE LMF-UE-MeasurementID PRESENCE mandatory }|

{ ID id-RAN-UE-MeasurementID CRITICALITY reject TYPE RAN-UE-MeasurementID PRESENCE mandatory }|

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

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

...

}

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

--

-- E-CID MEASUREMENT FAILURE INDICATION PROCEDURE

--

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

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

--

-- E-CID Measurement Failure Indication

--

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

E-CIDMeasurementFailureIndication ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{E-CIDMeasurementFailureIndication-IEs}},

...

}

E-CIDMeasurementFailureIndication-IEs 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-LMF-UE-MeasurementID CRITICALITY reject TYPE LMF-UE-MeasurementID PRESENCE mandatory }|

{ ID id-RAN-UE-MeasurementID CRITICALITY reject TYPE RAN-UE-MeasurementID PRESENCE mandatory }|

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

...

}

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

--

-- E-CID MEASUREMENT REPORT PROCEDURE

--

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

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

--

-- E-CID Measurement Report

--

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

E-CIDMeasurementReport ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{E-CIDMeasurementReport-IEs}},

...

}

E-CIDMeasurementReport-IEs 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-LMF-UE-MeasurementID CRITICALITY reject TYPE LMF-UE-MeasurementID PRESENCE mandatory }|

{ ID id-RAN-UE-MeasurementID CRITICALITY reject TYPE RAN-UE-MeasurementID PRESENCE mandatory }|

{ ID id-E-CID-MeasurementResult CRITICALITY ignore TYPE E-CID-MeasurementResult PRESENCE mandatory }|

{ ID id-Cell-Portion-ID CRITICALITY ignore TYPE Cell-Portion-ID PRESENCE optional},

...

}

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

--

-- E-CID MEASUREMENT TERMINATION PROCEDURE

--

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

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

--

-- E-CID Measurement Termination Command

--

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

E-CIDMeasurementTerminationCommand ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{E-CIDMeasurementTerminationCommand-IEs}},

...

}

E-CIDMeasurementTerminationCommand-IEs 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-LMF-UE-MeasurementID CRITICALITY reject TYPE LMF-UE-MeasurementID PRESENCE mandatory }|

{ ID id-RAN-UE-MeasurementID CRITICALITY reject TYPE RAN-UE-MeasurementID PRESENCE mandatory },

...

}

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

--

-- BROADCAST CONTEXT SETUP ELEMENTARY PROCEDURE

--

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

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

--

-- BROADCAST CONTEXT SETUP REQUEST

--

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

BroadcastContextSetupRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BroadcastContextSetupRequestIEs} },

...

}

BroadcastContextSetupRequestIEs F1AP-PROTOCOL-IES ::= {

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

{ ID id-MBS-Session-ID CRITICALITY reject TYPE MBS-Session-ID PRESENCE mandatory }|

{ ID id-MBS-ServiceArea CRITICALITY reject TYPE MBS-ServiceArea PRESENCE optional }|

{ ID id-MBS-CUtoDURRCInformation CRITICALITY reject TYPE MBS-CUtoDURRCInformation PRESENCE mandatory }|

{ ID id-SNSSAI CRITICALITY reject TYPE SNSSAI PRESENCE mandatory }|

{ ID id-BroadcastMRBs-ToBeSetup-List CRITICALITY reject TYPE BroadcastMRBs-ToBeSetup-List PRESENCE mandatory },

...

}

BroadcastMRBs-ToBeSetup-List ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF ProtocolIE-SingleContainer { { BroadcastMRBs-ToBeSetup-ItemIEs} }

BroadcastMRBs-ToBeSetup-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-BroadcastMRBs-ToBeSetup-Item CRITICALITY reject TYPE BroadcastMRBs-ToBeSetup-Item PRESENCE mandatory },

...

}

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

--

-- BROADCAST CONTEXT SETUP RESPONSE

--

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

BroadcastContextSetupResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BroadcastContextSetupResponseIEs} },

...

}

BroadcastContextSetupResponseIEs F1AP-PROTOCOL-IES ::= {

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

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

{ ID id-BroadcastMRBs-Setup-List CRITICALITY reject TYPE BroadcastMRBs-Setup-List PRESENCE mandatory }|

{ ID id-BroadcastMRBs-FailedToBeSetup-List CRITICALITY ignore TYPE BroadcastMRBs-FailedToBeSetup-List PRESENCE optional }|

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

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

...

}

BroadcastMRBs-Setup-List ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF ProtocolIE-SingleContainer { { BroadcastMRBs-Setup-ItemIEs} }

BroadcastMRBs-FailedToBeSetup-List ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF ProtocolIE-SingleContainer { { BroadcastMRBs-FailedToBeSetup-ItemIEs} }

BroadcastMRBs-Setup-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-BroadcastMRBs-Setup-Item CRITICALITY reject TYPE BroadcastMRBs-Setup-Item PRESENCE mandatory},

...

}

BroadcastMRBs-FailedToBeSetup-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-BroadcastMRBs-FailedToBeSetup-Item CRITICALITY ignore TYPE BroadcastMRBs-FailedToBeSetup-Item PRESENCE mandatory}, ...

}

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

--

-- BROADCAST CONTEXT SETUP FAILURE

--

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

BroadcastContextSetupFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BroadcastContextSetupFailureIEs} },

...

}

BroadcastContextSetupFailureIEs F1AP-PROTOCOL-IES ::= {

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

{ ID id-gNB-DU-MBS-F1AP-ID CRITICALITY ignore TYPE GNB-DU-UE-F1AP-ID PRESENCE optional }|

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

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

...

}

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

--

-- BROADCAST CONTEXT RELEASE ELEMENTARY PROCEDURE

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

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

--

-- BROADCAST CONTEXT RELEASE COMMAND

--

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

BroadcastContextReleaseCommand ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BroadcastContextReleaseCommandIEs} },

...

}

BroadcastContextReleaseCommandIEs F1AP-PROTOCOL-IES ::= {

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

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

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

...

}

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

--

-- BROADCAST CONTEXT RELEASE COMPLETE

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

BroadcastContextReleaseComplete ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BroadcastContextReleaseCompleteIEs} },

...

}

BroadcastContextReleaseCompleteIEs F1AP-PROTOCOL-IES ::= {

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

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

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

...

}

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

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-- BROADCAST CONTEXT RELEASE REQUEST ELEMENTARY PROCEDURE

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

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

--

-- BROADCAST CONTEXT RELEASE REQUEST

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

BroadcastContextReleaseRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ BroadcastContextReleaseRequestIEs}},

...

}

BroadcastContextReleaseRequestIEs F1AP-PROTOCOL-IES ::= {

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

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

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

...

}

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

--

-- BROADCAST CONTEXT MODIFICATION ELEMENTARY PROCEDURE

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

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

--

-- BROADCAST CONTEXT MODIFICATION REQUEST

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

BroadcastContextModificationRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BroadcastContextModificationRequestIEs} },

...

}

BroadcastContextModificationRequestIEs F1AP-PROTOCOL-IES ::= {

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

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

{ ID id-MBS-ServiceArea CRITICALITY reject TYPE MBS-ServiceArea PRESENCE optional }|

{ ID id-MBS-CUtoDURRCInformation CRITICALITY reject TYPE MBS-CUtoDURRCInformation PRESENCE mandatory }|

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

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

{ ID id-BroadcastMRBs-ToBeReleased-List CRITICALITY reject TYPE BroadcastMRBs-ToBeReleased-List PRESENCE optional },

...

}

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

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

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

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

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

...

}

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

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

...

}

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

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

...

}

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

--

-- BROADCAST CONTEXT MODIFICATION RESPONSE

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

BroadcastContextModificationResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BroadcastContextModificationResponseIEs} },

...

}

BroadcastContextModificationResponseIEs F1AP-PROTOCOL-IES ::= {

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

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

{ ID id-BroadcastMRBs-SetupMod-List CRITICALITY reject TYPE BroadcastMRBs-SetupMod-List PRESENCE optional}|

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

{ ID id-BroadcastMRBs-Modified-List CRITICALITY reject TYPE BroadcastMRBs-Modified-List PRESENCE optional}|

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

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

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

...

}

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

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

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

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

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

{ ID id-BroadcastMRBs-SetupMod-Item CRITICALITY reject TYPE BroadcastMRBs-SetupMod-Item PRESENCE mandatory},

...

}

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

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

...

}

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

{ ID id-BroadcastMRBs-Modified-Item CRITICALITY reject TYPE BroadcastMRBs-Modified-Item PRESENCE mandatory},

...

}

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

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

...

}

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

--

-- BROADCAST CONTEXT MODIFICATION FAILURE

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

BroadcastContextModificationFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BroadcastContextModificationFailureIEs} },

...

}

BroadcastContextModificationFailureIEs F1AP-PROTOCOL-IES ::= {

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

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

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

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

...

}

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

--

-- Multicast Group Paging PROCEDURE

--

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

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

--

-- Multicast Group Paging

--

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

MulticastGroupPaging ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ MulticastGroupPagingIEs}},

...

}

MulticastGroupPagingIEs F1AP-PROTOCOL-IES ::= {

{ ID id-MBS-Session-ID CRITICALITY reject TYPE MBS-Session-ID PRESENCE mandatory }|

{ ID id-UEIdentity-List-For-Paging-List CRITICALITY ignore TYPE UEIdentity-List-For-Paging-List PRESENCE optional }|

{ ID id-MC-PagingCell-List CRITICALITY ignore TYPE MC-PagingCell-list PRESENCE optional },

...

}

UEIdentity-List-For-Paging-List ::= SEQUENCE (SIZE(1.. maxnoofUEIDforPaging)) OF ProtocolIE-SingleContainer { { UEIdentity-List-For-Paging-ItemIEs } }

UEIdentity-List-For-Paging-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-UEIdentity-List-For-Paging-Item CRITICALITY ignore TYPE UEIdentity-List-For-Paging-Item PRESENCE optional } ,

...

}

MC-PagingCell-list::= SEQUENCE (SIZE(1.. maxnoofPagingCells)) OF ProtocolIE-SingleContainer { { MC-PagingCell-ItemIEs } }

MC-PagingCell-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-MC-PagingCell-Item CRITICALITY ignore TYPE MC-PagingCell-Item PRESENCE mandatory} ,

...

}

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

--

-- MULTICAST CONTEXT SETUP ELEMENTARY PROCEDURE

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

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

--

-- MULTICAST CONTEXT SETUP REQUEST

--

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

MulticastContextSetupRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ MulticastContextSetupRequestIEs}},

...

}

MulticastContextSetupRequestIEs F1AP-PROTOCOL-IES ::= {

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

{ ID id-MBS-Session-ID CRITICALITY reject TYPE MBS-Session-ID PRESENCE mandatory }|

{ ID id-MBS-ServiceArea CRITICALITY reject TYPE MBS-ServiceArea PRESENCE optional }|

{ ID id-SNSSAI CRITICALITY reject TYPE SNSSAI PRESENCE mandatory }|

{ ID id-MulticastMRBs-ToBeSetup-List CRITICALITY reject TYPE MulticastMRBs-ToBeSetup-List PRESENCE mandatory },

...

}

MulticastMRBs-ToBeSetup-List ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF ProtocolIE-SingleContainer { { MulticastMRBs-ToBeSetup-ItemIEs} }

MulticastMRBs-ToBeSetup-ItemIEs F1AP-PROTOCOL-IES ::= {

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

...

}

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

--

-- MULTICAST CONTEXT SETUP RESPONSE

--

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

MulticastContextSetupResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ MulticastContextSetupResponseIEs}},

...

}

MulticastContextSetupResponseIEs F1AP-PROTOCOL-IES ::= {

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

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

{ ID id-MulticastMRBs-Setup-List CRITICALITY reject TYPE MulticastMRBs-Setup-List PRESENCE mandatory }|

{ ID id-MulticastMRBs-FailedToBeSetup-List CRITICALITY ignore TYPE MulticastMRBs-FailedToBeSetup-List PRESENCE optional }|

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

...

}

MulticastMRBs-Setup-List ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF ProtocolIE-SingleContainer { { MulticastMRBs-Setup-ItemIEs} }

MulticastMRBs-FailedToBeSetup-List ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF ProtocolIE-SingleContainer { { MulticastMRBs-FailedToBeSetup-ItemIEs} }

MulticastMRBs-Setup-ItemIEs F1AP-PROTOCOL-IES ::= {

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

...

}

MulticastMRBs-FailedToBeSetup-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-MulticastMRBs-FailedToBeSetup-Item CRITICALITY ignore TYPE MulticastMRBs-FailedToBeSetup-Item PRESENCE mandatory},

...

}

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

--

-- MULTICAST CONTEXT SETUP FAILURE

--

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

MulticastContextSetupFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ MulticastContextSetupFailureIEs}},

...

}

MulticastContextSetupFailureIEs F1AP-PROTOCOL-IES ::= {

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

{ ID id-gNB-DU-MBS-F1AP-ID CRITICALITY ignore TYPE GNB-DU-MBS-F1AP-ID PRESENCE optional }|

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

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

...

}

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

--

-- MULTICAST CONTEXT RELEASE ELEMENTARY PROCEDURE

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

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

--

-- MULTICAST CONTEXT RELEASE COMMAND

--

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

MulticastContextReleaseCommand ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ MulticastContextReleaseCommandIEs}},

...

}

MulticastContextReleaseCommandIEs F1AP-PROTOCOL-IES ::= {

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

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

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

...

}

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

--

-- MULTICAST CONTEXT RELEASE COMPLETE

--

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

MulticastContextReleaseComplete ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ MulticastContextReleaseCompleteIEs}},

...

}

MulticastContextReleaseCompleteIEs F1AP-PROTOCOL-IES ::= {

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

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

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

...

}

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

--

-- MULTICAST CONTEXT RELEASE REQUEST ELEMENTARY PROCEDURE

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

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

--

-- MULTICAST CONTEXT RELEASE REQUEST

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

MulticastContextReleaseRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ MulticastContextReleaseRequestIEs}},

...

}

MulticastContextReleaseRequestIEs F1AP-PROTOCOL-IES ::= {

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

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

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

...

}

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

--

-- MULTICAST CONTEXT MODIFICATION ELEMENTARY PROCEDURE

--

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

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

--

-- MULTICAST CONTEXT MODIFICATION REQUEST

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

MulticastContextModificationRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ MulticastContextModificationRequestIEs}},

...

}

MulticastContextModificationRequestIEs F1AP-PROTOCOL-IES ::= {

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

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

{ ID id-MBS-ServiceArea CRITICALITY reject TYPE MBS-ServiceArea PRESENCE optional }|

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

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

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

...

}

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

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

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

...

}

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

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

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

...

}

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

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

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

...

}

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

--

-- MULTICAST CONTEXT MODIFICATION RESPONSE

--

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

MulticastContextModificationResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ MulticastContextModificationResponseIEs}},

...

}

MulticastContextModificationResponseIEs F1AP-PROTOCOL-IES ::= {

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

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

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

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

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

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

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

...

}

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

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

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

...

}

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

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

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

...

}

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

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

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

...

}

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

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

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

...

}

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

--

-- MULTICAST CONTEXT MODIFICATION FAILURE

--

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

MulticastContextModificationFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ MulticastContextModificationFailureIEs}},

...

}

MulticastContextModificationFailureIEs F1AP-PROTOCOL-IES ::= {

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

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

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

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

...

}

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

--

-- MULTICAST DISTRIBUTION SETUP ELEMENTARY PROCEDURE

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

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

--

-- MULTICAST DISTRIBUTION SETUP REQUEST

--

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

MulticastDistributionSetupRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ MulticastDistributionSetupRequestIEs}},

...

}

MulticastDistributionSetupRequestIEs F1AP-PROTOCOL-IES ::= {

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

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

{ ID id-MBSMulticastF1UContextDescriptor CRITICALITY reject TYPE MBSMulticastF1UContextDescriptor PRESENCE mandatory }|

{ ID id-MulticastF1UContext-ToBeSetup-List CRITICALITY reject TYPE MulticastF1UContext-ToBeSetup-List PRESENCE mandatory },

...

}

MulticastF1UContext-ToBeSetup-List ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF

ProtocolIE-SingleContainer { { MulticastF1UContext-ToBeSetup-ItemIEs} }

MulticastF1UContext-ToBeSetup-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-MulticastF1UContext-ToBeSetup-Item CRITICALITY reject TYPE MulticastF1UContext-ToBeSetup-Item PRESENCE mandatory},

...

}

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

--

-- MULTICAST DISTRIBUTION SETUP RESPONSE

--

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

MulticastDistributionSetupResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ MulticastDistributionSetupResponseIEs}},

...

}

MulticastDistributionSetupResponseIEs F1AP-PROTOCOL-IES ::= {

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

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

{ ID id-MBSMulticastF1UContextDescriptor CRITICALITY reject TYPE MBSMulticastF1UContextDescriptor PRESENCE mandatory}|

{ ID id-MulticastF1UContext-Setup-List CRITICALITY reject TYPE MulticastF1UContext-Setup-List PRESENCE mandatory}|

{ ID id-MulticastF1UContext-FailedToBeSetup-List CRITICALITY ignore TYPE MulticastF1UContext-FailedToBeSetup-List PRESENCE optional}|

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

{ ID id-MulticastF1UContextReferenceCU CRITICALITY reject TYPE MulticastF1UContextReferenceCU PRESENCE mandatory},

...

}

MulticastF1UContext-Setup-List ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF ProtocolIE-SingleContainer { { MulticastF1UContext-Setup-ItemIEs} }

MulticastF1UContext-Setup-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-MulticastF1UContext-Setup-Item CRITICALITY reject TYPE MulticastF1UContext-Setup-Item PRESENCE mandatory},

...

}

MulticastF1UContext-FailedToBeSetup-List ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF   
 ProtocolIE-SingleContainer { { MulticastF1UContext-FailedToBeSetup-ItemIEs} }

MulticastF1UContext-FailedToBeSetup-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-MulticastF1UContext-FailedToBeSetup-Item CRITICALITY ignore TYPE MulticastF1UContext-FailedToBeSetup-Item PRESENCE mandatory},

...

}

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

--

-- MULTICAST DISTRIBUTION SETUP FAILURE

--

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

MulticastDistributionSetupFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ MulticastDistributionSetupFailureIEs}},

...

}

MulticastDistributionSetupFailureIEs F1AP-PROTOCOL-IES ::= {

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

{ ID id-gNB-DU-MBS-F1AP-ID CRITICALITY ignore TYPE GNB-DU-MBS-F1AP-ID PRESENCE optional }|

{ ID id-MBSMulticastF1UContextDescriptor CRITICALITY reject TYPE MBSMulticastF1UContextDescriptor PRESENCE mandatory }|

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

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

...

}

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

--

-- MULTICAST DISTRIBUTION RELEASE ELEMENTARY PROCEDURE

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

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

--

-- MULTICAST DISTRIBUTION RELEASE COMMAND

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

MulticastDistributionReleaseCommand ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ MulticastDistributionReleaseCommandIEs}},

...

}

MulticastDistributionReleaseCommandIEs F1AP-PROTOCOL-IES ::= {

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

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

{ ID id-MBSMulticastF1UContextDescriptor CRITICALITY reject TYPE MBSMulticastF1UContextDescriptor PRESENCE mandatory }|

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

...

}

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

--

-- MULTICAST DISTRIBUTION RELEASE COMPLETE

--

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

MulticastDistributionReleaseComplete ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ MulticastDistributionReleaseCompleteIEs}},

...

}

MulticastDistributionReleaseCompleteIEs F1AP-PROTOCOL-IES ::= {

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

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

{ ID id-MBSMulticastF1UContextDescriptor CRITICALITY reject TYPE MBSMulticastF1UContextDescriptor PRESENCE mandatory }|

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

...

}

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

--

-- PDC MEASUREMENT PROCEDURE

--

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

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

--

-- PDC Measurement Initiation Request

--

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

PDCMeasurementInitiationRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{PDCMeasurementInitiationRequest-IEs}},

...

}

PDCMeasurementInitiationRequest-IEs 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-RAN-UE-PDC-MeasID CRITICALITY reject TYPE RAN-UE-PDC-MeasID PRESENCE mandatory }|

{ ID id-PDCReportType CRITICALITY reject TYPE PDCReportType PRESENCE mandatory }|

{ ID id-PDCMeasurementPeriodicity CRITICALITY reject TYPE PDCMeasurementPeriodicity PRESENCE conditional }|

-- The above IE shall be present if the PDCReportType IE is set to “periodic” –-

{ ID id-PDCMeasurementQuantities CRITICALITY reject TYPE PDCMeasurementQuantities PRESENCE mandatory },

...

}

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

--

-- PDC Measurement Initiation Response

--

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

PDCMeasurementInitiationResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{PDCMeasurementInitiationResponse-IEs}},

...

}

PDCMeasurementInitiationResponse-IEs 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-RAN-UE-PDC-MeasID CRITICALITY reject TYPE RAN-UE-PDC-MeasID PRESENCE mandatory }|

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

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

...

}

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

--

-- PDC Measurement Initiation Failure

--

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

PDCMeasurementInitiationFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{PDCMeasurementInitiationFailure-IEs}},

...

}

PDCMeasurementInitiationFailure-IEs 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-RAN-UE-PDC-MeasID CRITICALITY ignore TYPE RAN-UE-PDC-MeasID PRESENCE mandatory }|

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

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

...

}

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

--

-- PDC MEASUREMENT REPORT PROCEDURE

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

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

--

-- PDC Measurement Report

--

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

PDCMeasurementReport ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{PDCMeasurementReport-IEs}},

...

}

PDCMeasurementReport-IEs 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-RAN-UE-PDC-MeasID CRITICALITY reject TYPE RAN-UE-PDC-MeasID PRESENCE mandatory }|

{ ID id-PDCMeasurementResult CRITICALITY ignore TYPE PDCMeasurementResult PRESENCE mandatory },

...

}

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

--

-- PDC MEASUREMENT TERMINATION PROCEDURE

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

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

--

-- PDC Measurement Termination

--

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

PDCMeasurementTerminationCommand ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { PDCMeasurementTerminationCommand-IEs} },

...

}

PDCMeasurementTerminationCommand-IEs 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-RAN-UE-PDC-MeasID CRITICALITY ignore TYPE RAN-UE-PDC-MeasID PRESENCE mandatory },

...

}

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

--

-- PDC MEASUREMENT FAILURE INDICATION PROCEDURE

--

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

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

--

-- PDC Measurement Failure Indication

--

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

PDCMeasurementFailureIndication ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { PDCMeasurementFailureIndication-IEs} },

...

}

PDCMeasurementFailureIndication-IEs 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-RAN-UE-PDC-MeasID CRITICALITY ignore TYPE RAN-UE-PDC-MeasID PRESENCE mandatory }|

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

...

}

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

--

-- PRS CONFIGURATION REQUEST

--

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

PRSConfigurationRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{PRSConfigurationRequest-IEs}},

...

}

PRSConfigurationRequest-IEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-PRSConfigRequestType CRITICALITY reject TYPE PRSConfigRequestType PRESENCE mandatory }|

{ ID id-PRSTRPList CRITICALITY ignore TYPE PRSTRPList PRESENCE mandatory },

...

}

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

--

-- PRS CONFIGURATION RESPONSE

--

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

PRSConfigurationResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ PRSConfigurationResponse-IEs}},

...

}

PRSConfigurationResponse-IEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory}|

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

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

...

}

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

--

-- PRS CONFIGURATION FAILURE

--

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

PRSConfigurationFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ PRSConfigurationFailure-IEs}},

...

}

PRSConfigurationFailure-IEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory}|

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

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

...

}

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

--

-- MEASUREMENT PRECONFIGURATION PROCEDURE

--

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

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

--

-- Positioning Preconfiguration Required

--

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

MeasurementPreconfigurationRequired ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ MeasurementPreconfigurationRequired-IEs}},

...

}

MeasurementPreconfigurationRequired-IEs 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-TRP-PRS-Info-List CRITICALITY ignore TYPE TRP-PRS-Info-List PRESENCE mandatory},

...

}

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

--

-- Positioning Preconfiguration Confirm

--

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

MeasurementPreconfigurationConfirm ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { MeasurementPreconfigurationConfirm-IEs} },

...

}

MeasurementPreconfigurationConfirm-IEs 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-PosMeasGapPreConfigList CRITICALITY ignore TYPE PosMeasGapPreConfigList PRESENCE optional }|

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

...

}

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

--

-- Positioning Preconfiguration Refuse

--

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

MeasurementPreconfigurationRefuse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { MeasurementPreconfigurationRefuse-IEs} },

...

}

MeasurementPreconfigurationRefuse-IEs 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 },

...

}

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

--

-- MEASUREMENT ACTIVATION PROCEDURE

--

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

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

--

-- Measurement Activation

--

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

MeasurementActivation ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { MeasurementActivation-IEs} },

...

}

MeasurementActivation-IEs 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-ActivationRequestType CRITICALITY reject TYPE ActivationRequestType PRESENCE mandatory}|

{ ID id-PRS-Measurement-Info-List CRITICALITY ignore TYPE PRS-Measurement-Info-List PRESENCE optional},

...

}

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

--

-- QOE INFORMATION TRANSFER

--

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

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- QoE Information Transfer

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

QoEInformationTransfer ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{QoEInformationTransfer-IEs}},

...

}

QoEInformationTransfer-IEs 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-QoEInformation CRITICALITY ignore TYPE QoEInformation PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Positioning System information Delivery Command

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PosSystemInformationDeliveryCommand ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ PosSystemInformationDeliveryCommandIEs}},

...

}

PosSystemInformationDeliveryCommandIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

{ ID id-NRCGI CRITICALITY reject TYPE NRCGI PRESENCE mandatory }|

{ ID id-PosSItypeList CRITICALITY reject TYPE PosSItypeList PRESENCE mandatory }|

{ ID id-ConfirmedUEID CRITICALITY reject TYPE GNB-DU-UE-F1AP-ID PRESENCE mandatory },

...

}

END

-- ASN1STOP

### 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

IMPORTS

id-gNB-CUSystemInformation,

id-HandoverPreparationInformation,

id-TAISliceSupportList,

id-RANAC,

id-BearerTypeChange,

id-Cell-Direction,

id-Cell-Type,

id-CellGroupConfig,

id-AvailablePLMNList,

id-PDUSessionID,

id-ULPDUSessionAggregateMaximumBitRate,

id-DC-Based-Duplication-Configured,

id-DC-Based-Duplication-Activation,

id-Duplication-Activation,

id-DLPDCPSNLength,

id-ULPDCPSNLength,

id-RLC-Status,

id-MeasurementTimingConfiguration,

id-DRB-Information,

id-QoSFlowMappingIndication,

id-ServingCellMO,

id-RLCMode,

id-ExtendedServedPLMNs-List,

id-ExtendedAvailablePLMN-List,

id-DRX-LongCycleStartOffset,

id-SelectedBandCombinationIndex,

id-SelectedFeatureSetEntryIndex,

id-Ph-InfoSCG,

id-latest-RRC-Version-Enhanced,

id-RequestedBandCombinationIndex,

id-RequestedFeatureSetEntryIndex,

id-DRX-Config,

id-UEAssistanceInformation,

id-PDCCH-BlindDetectionSCG,

id-Requested-PDCCH-BlindDetectionSCG,

id-BPLMN-ID-Info-List,

id-NotificationInformation,

id-TNLAssociationTransportLayerAddressgNBDU,

id-portNumber,

id-AdditionalSIBMessageList,

id-IgnorePRACHConfiguration,

id-CG-Config,

id-Ph-InfoMCG,

id-AggressorgNBSetID,

id-VictimgNBSetID,

id-MeasGapSharingConfig,

id-systemInformationAreaID,

id-areaScope,

id-IntendedTDD-DL-ULConfig,

id-QosMonitoringRequest,

id-BHInfo,

id-IAB-Info-IAB-DU,

id-IAB-Info-IAB-donor-CU,

id-IAB-Barred,

id-SIB12-message,

id-SIB13-message,

id-SIB14-message,

id-UEAssistanceInformationEUTRA,

id-SL-PHY-MAC-RLC-Config,

id-SL-ConfigDedicatedEUTRA-Info,

id-AlternativeQoSParaSetList,

id-CurrentQoSParaSetIndex,

id-CarrierList,

id-ULCarrierList,

id-FrequencyShift7p5khz,

id-SSB-PositionsInBurst,

id-NRPRACHConfig,

id-TDD-UL-DLConfigCommonNR,

id-CNPacketDelayBudgetDownlink,

id-CNPacketDelayBudgetUplink,

id-ExtendedPacketDelayBudget,

id-TSCTrafficCharacteristics,

id-AdditionalPDCPDuplicationTNL-List,

id-RLCDuplicationInformation,

id-AdditionalDuplicationIndication,

id-mdtConfiguration,

id-TraceCollectionEntityURI,

id-NID,

id-NPNSupportInfo,

id-NPNBroadcastInformation,

id-AvailableSNPN-ID-List,

id-SIB10-message,

id-RequestedP-MaxFR2,

id-DLCarrierList,

id-ExtendedTAISliceSupportList,

id-E-CID-MeasurementQuantities-Item,

id-ConfiguredTACIndication,

id-NRCGI,

id-SFN-Offset,

id-TransmissionStopIndicator,

id-SrsFrequency,

id-EstimatedArrivalProbability,

id-Supported-MBS-FSA-ID-List,

id-TRPType,

id-SRSSpatialRelationPerSRSResource,

id-MBS-Broadcast-NeighbourCellList,

id-PDCPTerminatingNodeDLTNLAddrInfo,

id-ENBDLTNLAddress,

id-PRS-Resource-ID,

id-LocationMeasurementInformation,

id-SliceRadioResourceStatus,

id-CompositeAvailableCapacity-SUL,

id-NR-U,

id-NR-U-Channel-List,

id-MIMOPRBusageInformation,

id-IngressNonF1terminatingTopologyIndicator,

id-NonF1terminatingTopologyIndicator,

id-EgressNonF1terminatingTopologyIndicator,

id-rBSetConfiguration,

id-frequency-Domain-HSNA-Configuration-List,

id-child-IAB-Nodes-NA-Resource-List,

id-Parent-IAB-Nodes-NA-Resource-Configuration-List,

id-uL-FreqInfo,

id-uL-Transmission-Bandwidth,

id-dL-FreqInfo,

id-dL-Transmission-Bandwidth,

id-uL-NR-Carrier-List,

id-dL-NR-Carrier-List,

id-nRFreqInfo,

id-transmission-Bandwidth,

id-nR-Carrier-List,

id-permutation,

id-M5ReportAmount,

id-M6ReportAmount,

id-M7ReportAmount,

id-SurvivalTime,

id-PDCMeasurementQuantities-Item,

id-OnDemandPRS,

id-AoA-SearchWindow,

id-ZoAInformation,

id-ARPLocationInfo,

id-ARP-ID,

id-MultipleULAoA,

id-UL-SRS-RSRPP,

id-SRSResourcetype,

id-ExtendedAdditionalPathList,

id-LoS-NLoSInformation,

id-NumberOfTRPRxTEG,

id-NumberOfTRPRxTxTEG,

id-TRPTxTEGAssociation,

id-TRPTEGInformation,

id-TRPRx-TEGInformation,

id-TRPBeamAntennaInformation,

id-Redcap-Bcast-Information,

id-NR-TADV,

id-SDT-MAC-PHY-CG-Config,

id-CG-SDTindicatorSetup,

id-CG-SDTindicatorMod,

id-SDTRLCBearerConfiguration,

id-SRBMappingInfo,

id-DRBMappingInfo,

id-LastUsedCellIndication,

id-SIB17-message,

id-MUSIM-GapConfig,

id-SIB20-message,

id-pathPower,

id-DU-RX-MT-RX-Extend,

id-DU-TX-MT-TX-Extend,

id-DU-RX-MT-TX-Extend,

id-DU-TX-MT-RX-Extend,

id-TAINSAGSupportList,

id-SL-RLC-ChannelToAddModList,

id-SIB15-message,

id-InterFrequencyConfig-NoGap,

id-MBSInterestIndication,

id-L571Info,

id-L1151Info,

id-SCS-480,

id-SCS-960,

id-SRSPortIndex,

id-PEISubgroupingSupportIndication,

id-NeedForGapsInfoNR,

id-NeedForGapNCSGInfoNR,

id-NeedForGapNCSGInfoEUTRA,

id-Source-MRB-ID,

id-RedCapIndication,

id-UL-GapFR2-Config,

id-ConfigRestrictInfoDAPS,

id-MulticastF1UContextReferenceCU,

id-TwoPHRModeMCG,

id-TwoPHRModeSCG,

id-ncd-SSB-RedCapInitialBWP-SDT,

id-nrofSymbolsExtended,

id-repetitionFactorExtended,

id-startRBHopping,

id-startRBIndex,

id-transmissionCombn8,

id-ServCellInfoList,

id-FiveG-ProSeLayer2Multipath,

id-FiveG-ProSeLayer2UEtoUERelay,

id-FiveG-ProSeLayer2UEtoUERemote,

maxNRARFCN,

maxnoofErrors,

maxnoofBPLMNs,

maxnoofBPLMNsNR,

maxnoofDLUPTNLInformation,

maxnoofNrCellBands,

maxnoofULUPTNLInformation,

maxnoofQoSFlows,

maxnoofSliceItems,

maxnoofSIBTypes,

maxnoofSITypes,

maxCellineNB,

maxnoofExtendedBPLMNs,

maxnoofAdditionalSIBs,

maxnoofUACPLMNs,

maxnoofUACperPLMN,

maxCellingNBDU,

maxnoofTLAs,

maxnoofGTPTLAs,

maxnoofslots,

maxnoofNonUPTrafficMappings,

maxnoofServingCells,

maxnoofServedCellsIAB,

maxnoofChildIABNodes,

maxnoofIABSTCInfo,

maxnoofSymbols,

maxnoofDUFSlots,

maxnoofHSNASlots,

maxnoofEgressLinks,

maxnoofMappingEntries,

maxnoofDSInfo,

maxnoofQoSParaSets,

maxnoofPC5QoSFlows,

maxnoofSSBAreas,

maxnoofNRSCSs,

maxnoofPhysicalResourceBlocks,

maxnoofPhysicalResourceBlocks-1,

maxnoofPRACHconfigs,

maxnoofRACHReports,

maxnoofRLFReports,

maxnoofAdditionalPDCPDuplicationTNL,

maxnoofRLCDuplicationState,

maxnoofCHOcells,

maxnoofMDTPLMNs,

maxnoofCAGsupported,

maxnoofNIDsupported,

maxnoofExtSliceItems,

maxnoofPosMeas,

maxnoofTRPInfoTypes,

maxnoofSRSTriggerStates,

maxnoofSpatialRelations,

maxnoBcastCell,

maxnoofTRPs,

maxnoofAngleInfo,

maxnooflcs-gcs-translation,

maxnoofPath,

maxnoofMeasE-CID,

maxnoofSSBs,

maxnoSRS-ResourceSets,

maxnoSRS-ResourcePerSet,

maxnoSRS-Carriers,

maxnoSCSs,

maxnoSRS-Resources,

maxnoSRS-PosResources,

maxnoSRS-PosResourceSets,

maxnoSRS-PosResourcePerSet,

maxnoofPRS-ResourceSets,

maxnoofPRS-ResourcesPerSet,

maxNoOfMeasTRPs,

maxnoofPRSresourceSets,

maxnoofPRSresources,

maxnoofSuccessfulHOReports,

maxnoofNR-UChannelIDs,

maxServedCellforSON,

maxNeighbourCellforSON,

maxAffectedCells,

maxnoofMBSQoSFlows,

maxnoofMBSFSAs,

maxnoofMBSAreaSessionIDs,

maxnoofMBSServiceAreaInformation,

maxnoofTAIforMBS,

maxnoofCellsforMBS,

maxnoofIABCongInd,

maxnoofBHRLCChannels,

maxnoofTLAsIAB,

maxnoofRBsetsPerCell,

maxnoofRBsetsPerCell-1,

maxnoofNeighbourNodeCellsIAB,

maxnoofMeasPDC,

maxnoARPs,

maxnoofULAoAs,

maxNoPathExtended,

maxnoTRPTEGs,

maxFreqLayers,

maxNumResourcesPerAngle,

maxnoAzimuthAngles,

maxnoElevationAngles,

maxnoofPRSTRPs,

maxnoofQoEInformation,

maxnoofUuRLCChannels,

maxnoofPC5RLCChannels,

maxnoofSMBRValues,

maxnoofMBSSessionsofUE,

maxnoofSLdestinations,

maxnoofNSAGs,

maxnoofSDTBearers,

maxnoofPosSITypes,

maxnoofMRBs,

maxNrofBWPs

FROM F1AP-Constants

Criticality,

ProcedureCode,

ProtocolIE-ID,

TriggeringMessage

FROM F1AP-CommonDataTypes

ProtocolExtensionContainer{},

F1AP-PROTOCOL-EXTENSION,

ProtocolIE-SingleContainer{},

F1AP-PROTOCOL-IES

FROM F1AP-Containers;

-- A

AbortTransmission ::= CHOICE {

sRSResourceSetID SRSResourceSetID,

releaseALL NULL,

choice-extension ProtocolIE-SingleContainer { { AbortTransmission-ExtIEs } }

}

AbortTransmission-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

AccessPointPosition ::= SEQUENCE {

latitudeSign ENUMERATED {north, south},

latitude INTEGER (0..8388607),

longitude INTEGER (-8388608..8388607),

directionOfAltitude ENUMERATED {height, depth},

altitude INTEGER (0..32767),

uncertaintySemi-major INTEGER (0..127),

uncertaintySemi-minor INTEGER (0..127),

orientationOfMajorAxis INTEGER (0..179),

uncertaintyAltitude INTEGER (0..127),

confidence INTEGER (0..100),

iE-Extensions ProtocolExtensionContainer { { AccessPointPosition-ExtIEs} } OPTIONAL

}

AccessPointPosition-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Activated-Cells-to-be-Updated-List ::= SEQUENCE (SIZE(1..maxnoofServedCellsIAB)) OF Activated-Cells-to-be-Updated-List-Item

Activated-Cells-to-be-Updated-List-Item ::= SEQUENCE{

nRCGI NRCGI,

iAB-DU-Cell-Resource-Configuration-Mode-Info IAB-DU-Cell-Resource-Configuration-Mode-Info,

iE-Extensions ProtocolExtensionContainer { { Activated-Cells-to-be-Updated-List-Item-ExtIEs} } OPTIONAL

}

Activated-Cells-to-be-Updated-List-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

ActivationRequestType ::= ENUMERATED {activate, deactivate, ...}

ActiveULBWP ::= SEQUENCE {

locationAndBandwidth INTEGER (0..37949,...),

subcarrierSpacing ENUMERATED {kHz15, kHz30, kHz60, kHz120,..., kHz480, kHz960},

cyclicPrefix ENUMERATED {normal, extended},

txDirectCurrentLocation INTEGER (0..3301,...),

shift7dot5kHz ENUMERATED {true, ...} OPTIONAL,

sRSConfig SRSConfig,

iE-Extensions ProtocolExtensionContainer { { ActiveULBWP-ExtIEs} } OPTIONAL

}

ActiveULBWP-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

AdditionalDuplicationIndication ::= ENUMERATED {

three,

four,

...

}

AdditionalPath-List::= SEQUENCE (SIZE(1..maxnoofPath)) OF AdditionalPath-Item

AdditionalPath-Item ::=SEQUENCE {

relativePathDelay RelativePathDelay,

pathQuality TRPMeasurementQuality OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { AdditionalPath-Item-ExtIEs } } OPTIONAL

}

AdditionalPath-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-MultipleULAoA CRITICALITY ignore EXTENSION MultipleULAoA PRESENCE optional}|

{ ID id-pathPower CRITICALITY ignore EXTENSION UL-SRS-RSRPP PRESENCE optional},

...

}

ExtendedAdditionalPathList ::= SEQUENCE (SIZE (1.. maxNoPathExtended)) OF ExtendedAdditionalPathList-Item

ExtendedAdditionalPathList-Item ::= SEQUENCE {

relativeTimeOfPath RelativePathDelay,

pathQuality TRPMeasurementQuality OPTIONAL,

multipleULAoA MultipleULAoA OPTIONAL,

pathPower UL-SRS-RSRPP OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { ExtendedAdditionalPathList-Item-ExtIEs} } OPTIONAL,

...

}

ExtendedAdditionalPathList-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

AdditionalPDCPDuplicationTNL-List ::= SEQUENCE (SIZE(1..maxnoofAdditionalPDCPDuplicationTNL)) OF AdditionalPDCPDuplicationTNL-Item

AdditionalPDCPDuplicationTNL-Item ::=SEQUENCE {

additionalPDCPDuplicationUPTNLInformation UPTransportLayerInformation,

iE-Extensions ProtocolExtensionContainer { { AdditionalPDCPDuplicationTNL-ItemExtIEs } } OPTIONAL,

...

}

AdditionalPDCPDuplicationTNL-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-BHInfo CRITICALITY ignore EXTENSION BHInfo PRESENCE optional },

...

}

AdditionalSIBMessageList ::= SEQUENCE (SIZE(1..maxnoofAdditionalSIBs)) OF AdditionalSIBMessageList-Item

AdditionalSIBMessageList-Item ::= SEQUENCE {

additionalSIB OCTET STRING,

iE-Extensions ProtocolExtensionContainer { { AdditionalSIBMessageList-Item-ExtIEs} } OPTIONAL

}

AdditionalSIBMessageList-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

AdditionalRRMPriorityIndex ::= BIT STRING (SIZE(32))

AffectedCellsAndBeams-List ::= SEQUENCE (SIZE (1.. maxAffectedCells)) OF AffectedCellsAndBeams-Item

AffectedCellsAndBeams-Item::= SEQUENCE {

nRCGI NRCGI,

affectedSSB-List AffectedSSB-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { AffectedCellsAndBeams-Item-ExtIEs} } OPTIONAL,

...

}

AffectedCellsAndBeams-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

AffectedSSB-List::= SEQUENCE (SIZE (1..maxnoofSSBAreas)) OF AffectedSSB-Item

AffectedSSB-Item::= SEQUENCE {

sSB-Index INTEGER(0..63),

iE-Extensions ProtocolExtensionContainer { { AffectedSSB-Item-ExtIEs} } OPTIONAL,

...

}

AffectedSSB-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

AggressorCellList ::= SEQUENCE (SIZE(1..maxCellingNBDU)) OF AggressorCellList-Item

AggressorCellList-Item ::= SEQUENCE {

aggressorCell-ID NRCGI,

iE-Extensions ProtocolExtensionContainer { { AggressorCellList-Item-ExtIEs } } OPTIONAL

}

AggressorCellList-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

AggressorgNBSetID ::= SEQUENCE {

aggressorgNBSetID GNBSetID,

iE-Extensions ProtocolExtensionContainer { { AggressorgNBSetID-ExtIEs } } OPTIONAL

}

AggressorgNBSetID-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

AllocationAndRetentionPriority ::= SEQUENCE {

priorityLevel PriorityLevel,

pre-emptionCapability Pre-emptionCapability,

pre-emptionVulnerability Pre-emptionVulnerability,

iE-Extensions ProtocolExtensionContainer { {AllocationAndRetentionPriority-ExtIEs} } OPTIONAL,

...

}

AllocationAndRetentionPriority-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

AlternativeQoSParaSetList ::= SEQUENCE (SIZE(1..maxnoofQoSParaSets)) OF AlternativeQoSParaSetItem

AlternativeQoSParaSetItem ::= SEQUENCE {

alternativeQoSParaSetIndex QoSParaSetIndex,

guaranteedFlowBitRateDL BitRate OPTIONAL,

guaranteedFlowBitRateUL BitRate OPTIONAL,

packetDelayBudget PacketDelayBudget OPTIONAL,

packetErrorRate PacketErrorRate OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {AlternativeQoSParaSetItem-ExtIEs} } OPTIONAL,

...

}

AlternativeQoSParaSetItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

AngleMeasurementQuality ::= SEQUENCE {

azimuthQuality INTEGER(0..255),

zenithQuality INTEGER(0..255) OPTIONAL,

resolution ENUMERATED{deg0dot1,...},

iE-Extensions ProtocolExtensionContainer { { AngleMeasurementQuality-ExtIEs } } OPTIONAL

}

AngleMeasurementQuality-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

AperiodicSRSResourceTriggerList ::= SEQUENCE (SIZE(1..maxnoofSRSTriggerStates)) OF AperiodicSRSResourceTrigger

AperiodicSRSResourceTrigger ::= INTEGER (1..3)

Associated-SCell-Item ::= SEQUENCE {

sCell-ID NRCGI,

iE-Extensions ProtocolExtensionContainer { { Associated-SCell-ItemExtIEs } } OPTIONAL

}

Associated-SCell-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

AvailablePLMNList ::= SEQUENCE (SIZE(1..maxnoofBPLMNs)) OF AvailablePLMNList-Item

AvailablePLMNList-Item ::= SEQUENCE {

pLMNIdentity PLMN-Identity,

iE-Extensions ProtocolExtensionContainer { { AvailablePLMNList-Item-ExtIEs} } OPTIONAL

}

AvailablePLMNList-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

AvailableSNPN-ID-List ::= SEQUENCE (SIZE(1..maxnoofNIDsupported)) OF AvailableSNPN-ID-List-Item

AvailableSNPN-ID-List-Item ::= SEQUENCE {

pLMN-Identity PLMN-Identity,

availableNIDList BroadcastNIDList,

iE-Extensions ProtocolExtensionContainer { { AvailableSNPN-ID-List-ItemExtIEs} } OPTIONAL,

...

}

AvailableSNPN-ID-List-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

AveragingWindow ::= INTEGER (0..4095, ...)

AreaScope ::= ENUMERATED {true, ...}

AoA-AssistanceInfo ::= SEQUENCE {

angleMeasurement AngleMeasurementType,

lCS-to-GCS-Translation LCS-to-GCS-Translation OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { AoA-AssistanceInfo-ExtIEs } } OPTIONAL,

...

}

AoA-AssistanceInfo-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

AngleMeasurementType ::= CHOICE {

expected-ULAoA Expected-UL-AoA,

expected-ZoA Expected-ZoA-only,

choice-extension ProtocolIE-SingleContainer { { AngleMeasurementType-ExtIEs } }

}

AngleMeasurementType-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

AppLayerBufferLevelList ::= OCTET STRING

ARP-ID ::= INTEGER (1..16, ...)

ARPLocationInformation ::= SEQUENCE (SIZE (1..maxnoARPs)) OF ARPLocationInformation-Item

ARPLocationInformation-Item ::= SEQUENCE {

aRP-ID ARP-ID,

aRPLocationType ARPLocationType,

iE-Extensions ProtocolExtensionContainer { { ARPLocationInformation-ExtIEs} } OPTIONAL,

...

}

ARPLocationInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

ARPLocationType ::= CHOICE {

aRPPositionRelativeGeodetic RelativeGeodeticLocation,

aRPPositionRelativeCartesian RelativeCartesianLocation,

choice-extension ProtocolIE-SingleContainer { { ARPLocationType-ExtIEs } }

}

ARPLocationType-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

-- B

BAP-Header-Rewriting-Added-List-Item::= SEQUENCE {

ingressBAPRoutingID BAPRoutingID,

egressBAPRoutingID BAPRoutingID,

nonF1terminatingTopologyIndicator NonF1terminatingTopologyIndicator OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { BAP-Header-Rewriting-Added-List-Item-ExtIEs} } OPTIONAL

}

BAP-Header-Rewriting-Added-List-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BAP-Header-Rewriting-Removed-List-Item::= SEQUENCE {

ingressBAPRoutingID BAPRoutingID,

iE-Extensions ProtocolExtensionContainer { { BAP-Header-Rewriting-Removed-List-Item-ExtIEs} } OPTIONAL

}

BAP-Header-Rewriting-Removed-List-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BandwidthSRS ::= CHOICE {

fR1 FR1-Bandwidth,

fR2 FR2-Bandwidth,

choice-extension ProtocolIE-SingleContainer {{ BandwidthSRS-ExtIEs }}

}

BandwidthSRS-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

BAPAddress ::= BIT STRING (SIZE(10))

BAPCtrlPDUChannel ::= ENUMERATED {true, ...}

BAPlayerBHRLCchannelMappingInfo ::= SEQUENCE {

bAPlayerBHRLCchannelMappingInfoToAdd BAPlayerBHRLCchannelMappingInfoList OPTIONAL,

bAPlayerBHRLCchannelMappingInfoToRemove MappingInformationtoRemove OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { BAPlayerBHRLCchannelMappingInfo-ExtIEs} } OPTIONAL,

...

}

BAPlayerBHRLCchannelMappingInfo-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BAPlayerBHRLCchannelMappingInfoList ::= SEQUENCE (SIZE(1..maxnoofMappingEntries)) OF BAPlayerBHRLCchannelMappingInfo-Item

BAPlayerBHRLCchannelMappingInfo-Item ::= SEQUENCE {

mappingInformationIndex MappingInformationIndex,

priorHopBAPAddress BAPAddress OPTIONAL,

ingressbHRLCChannelID BHRLCChannelID OPTIONAL,

nextHopBAPAddress BAPAddress OPTIONAL,

egressbHRLCChannelID BHRLCChannelID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { BAPlayerBHRLCchannelMappingInfo-ItemExtIEs} } OPTIONAL,

...

}

BAPlayerBHRLCchannelMappingInfo-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-IngressNonF1terminatingTopologyIndicator CRITICALITY ignore EXTENSION IngressNonF1terminatingTopologyIndicator PRESENCE optional}|

{ ID id-EgressNonF1terminatingTopologyIndicator CRITICALITY ignore EXTENSION EgressNonF1terminatingTopologyIndicator PRESENCE optional},

...

}

BAPPathID ::= BIT STRING (SIZE(10))

BAPRoutingID ::= SEQUENCE {

bAPAddress BAPAddress,

bAPPathID BAPPathID,

iE-Extensions ProtocolExtensionContainer { { BAPRoutingIDExtIEs } } OPTIONAL

}

BAPRoutingIDExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BCBearerContextF1U-TNLInfo ::= CHOICE {

locationindpendent MBSF1UInformation,

locationdependent LocationDependentMBSF1UInformation,

choice-extension ProtocolIE-SingleContainer {{BCBearerContextF1U-TNLInfo-ExtIEs}}

}

BCBearerContextF1U-TNLInfo-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

BitRate ::= INTEGER (0..4000000000000,...)

BearerTypeChange ::= ENUMERATED {true, ...}

BHRLCChannelID ::= BIT STRING (SIZE(16))

BHChannels-FailedToBeModified-Item ::= SEQUENCE {

bHRLCChannelID BHRLCChannelID,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { BHChannels-FailedToBeModified-ItemExtIEs } } OPTIONAL

}

BHChannels-FailedToBeModified-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BHChannels-FailedToBeSetup-Item ::= SEQUENCE {

bHRLCChannelID BHRLCChannelID,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { BHChannels-FailedToBeSetup-ItemExtIEs } } OPTIONAL

}

BHChannels-FailedToBeSetup-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BHChannels-FailedToBeSetupMod-Item ::= SEQUENCE {

bHRLCChannelID BHRLCChannelID,

cause Cause OPTIONAL ,

iE-Extensions ProtocolExtensionContainer { { BHChannels-FailedToBeSetupMod-ItemExtIEs } } OPTIONAL

}

BHChannels-FailedToBeSetupMod-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BHChannels-Modified-Item ::= SEQUENCE {

bHRLCChannelID BHRLCChannelID,

iE-Extensions ProtocolExtensionContainer { { BHChannels-Modified-ItemExtIEs } } OPTIONAL

}

BHChannels-Modified-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BHChannels-Required-ToBeReleased-Item ::= SEQUENCE {

bHRLCChannelID BHRLCChannelID,

iE-Extensions ProtocolExtensionContainer { { BHChannels-Required-ToBeReleased-ItemExtIEs } } OPTIONAL

}

BHChannels-Required-ToBeReleased-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BHChannels-Setup-Item ::= SEQUENCE {

bHRLCChannelID BHRLCChannelID,

iE-Extensions ProtocolExtensionContainer { { BHChannels-Setup-ItemExtIEs } } OPTIONAL

}

BHChannels-Setup-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BHChannels-SetupMod-Item ::= SEQUENCE {

bHRLCChannelID BHRLCChannelID,

iE-Extensions ProtocolExtensionContainer { { BHChannels-SetupMod-ItemExtIEs } } OPTIONAL

}

BHChannels-SetupMod-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BHChannels-ToBeModified-Item ::= SEQUENCE {

bHRLCChannelID BHRLCChannelID,

bHQoSInformation BHQoSInformation,

rLCmode RLCMode OPTIONAL,

bAPCtrlPDUChannel BAPCtrlPDUChannel OPTIONAL,

trafficMappingInfo TrafficMappingInfo OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { BHChannels-ToBeModified-ItemExtIEs } } OPTIONAL

}

BHChannels-ToBeModified-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BHChannels-ToBeReleased-Item ::= SEQUENCE {

bHRLCChannelID BHRLCChannelID,

iE-Extensions ProtocolExtensionContainer { { BHChannels-ToBeReleased-ItemExtIEs } } OPTIONAL

}

BHChannels-ToBeReleased-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BHChannels-ToBeSetup-Item ::= SEQUENCE {

bHRLCChannelID BHRLCChannelID,

bHQoSInformation BHQoSInformation,

rLCmode RLCMode,

bAPCtrlPDUChannel BAPCtrlPDUChannel OPTIONAL,

trafficMappingInfo TrafficMappingInfo OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { BHChannels-ToBeSetup-ItemExtIEs } } OPTIONAL

}

BHChannels-ToBeSetup-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BHChannels-ToBeSetupMod-Item ::= SEQUENCE {

bHRLCChannelID BHRLCChannelID,

bHQoSInformation BHQoSInformation,

rLCmode RLCMode,

bAPCtrlPDUChannel BAPCtrlPDUChannel OPTIONAL,

trafficMappingInfo TrafficMappingInfo OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { BHChannels-ToBeSetupMod-ItemExtIEs } } OPTIONAL

}

BHChannels-ToBeSetupMod-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BHInfo ::= SEQUENCE {

bAProutingID BAPRoutingID OPTIONAL,

egressBHRLCCHList EgressBHRLCCHList OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { BHInfo-ExtIEs} } OPTIONAL

}

BHInfo-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-NonF1terminatingTopologyIndicator CRITICALITY ignore EXTENSION NonF1terminatingTopologyIndicator PRESENCE optional },

...

}

BHQoSInformation ::= CHOICE {

bHRLCCHQoS QoSFlowLevelQoSParameters,

eUTRANBHRLCCHQoS EUTRANQoS,

cPTrafficType CPTrafficType,

choice-extension ProtocolIE-SingleContainer { { BHQoSInformation-ExtIEs} }

}

BHQoSInformation-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

BHRLCCHList ::= SEQUENCE (SIZE(1..maxnoofBHRLCChannels)) OF BHRLCCHItem

BHRLCCHItem ::= SEQUENCE {

bHRLCChannelID BHRLCChannelID,

iE-Extensions ProtocolExtensionContainer {{BHRLCCHItemExtIEs }} OPTIONAL

}

BHRLCCHItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BH-Routing-Information-Added-List-Item ::= SEQUENCE {

bAPRoutingID BAPRoutingID,

nextHopBAPAddress BAPAddress,

iE-Extensions ProtocolExtensionContainer { { BH-Routing-Information-Added-List-ItemExtIEs} } OPTIONAL

}

BH-Routing-Information-Added-List-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ID id-NonF1terminatingTopologyIndicator CRITICALITY ignore EXTENSION NonF1terminatingTopologyIndicator PRESENCE optional},

...

}

BH-Routing-Information-Removed-List-Item ::= SEQUENCE {

bAPRoutingID BAPRoutingID,

iE-Extensions ProtocolExtensionContainer { { BH-Routing-Information-Removed-List-ItemExtIEs} } OPTIONAL

}

BH-Routing-Information-Removed-List-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BPLMN-ID-Info-List ::= SEQUENCE (SIZE(1..maxnoofBPLMNsNR)) OF BPLMN-ID-Info-Item

BPLMN-ID-Info-Item ::= SEQUENCE {

pLMN-Identity-List AvailablePLMNList,

extended-PLMN-Identity-List ExtendedAvailablePLMN-List OPTIONAL,

fiveGS-TAC FiveGS-TAC OPTIONAL,

nr-cell-ID NRCellIdentity,

ranac RANAC OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { BPLMN-ID-Info-ItemExtIEs} } OPTIONAL,

...

}

BPLMN-ID-Info-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-ConfiguredTACIndication CRITICALITY ignore EXTENSION ConfiguredTACIndication PRESENCE optional }|

{ ID id-NPNBroadcastInformation CRITICALITY reject EXTENSION NPNBroadcastInformation PRESENCE optional},

...

}

ServedPLMNs-List ::= SEQUENCE (SIZE(1..maxnoofBPLMNs)) OF ServedPLMNs-Item

ServedPLMNs-Item ::= SEQUENCE {

pLMN-Identity PLMN-Identity,

iE-Extensions ProtocolExtensionContainer { { ServedPLMNs-ItemExtIEs} } OPTIONAL,

...

}

ServedPLMNs-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-TAISliceSupportList CRITICALITY ignore EXTENSION SliceSupportList PRESENCE optional }|

{ ID id-NPNSupportInfo CRITICALITY reject EXTENSION NPNSupportInfo PRESENCE optional }|

{ ID id-ExtendedTAISliceSupportList CRITICALITY reject EXTENSION ExtendedSliceSupportList PRESENCE optional }|

{ ID id-TAINSAGSupportList CRITICALITY ignore EXTENSION NSAGSupportList PRESENCE optional},

...

}

BroadcastCAGList ::= SEQUENCE (SIZE(1..maxnoofCAGsupported)) OF CAGID

BroadcastMRBs-FailedToBeModified-Item ::= SEQUENCE {

mRB-ID MRB-ID,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { BroadcastMRBs-FailedtoBeModified-Item-ExtIEs} } OPTIONAL,

...

}

BroadcastMRBs-FailedtoBeModified-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BroadcastMRBs-FailedToBeSetup-Item ::= SEQUENCE {

mRB-ID MRB-ID,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { BroadcastMRBs-FailedToBeSetup-Item-ExtIEs} } OPTIONAL,

...

}

BroadcastMRBs-FailedToBeSetup-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BroadcastMRBs-FailedToBeSetupMod-Item ::= SEQUENCE {

mRB-ID MRB-ID,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { BroadcastMRBs-FailedToBeSetupMod-Item-ExtIEs} } OPTIONAL,

...

}

BroadcastMRBs-FailedToBeSetupMod-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BroadcastMRBs-Modified-Item ::= SEQUENCE {

mRB-ID MRB-ID,

bcBearerCtxtF1U-TNLInfoatDU BCBearerContextF1U-TNLInfo OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { BroadcastMRBs-Modified-Item-ExtIEs} } OPTIONAL,

...

}

BroadcastMRBs-Modified-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BroadcastMRBs-Setup-Item ::= SEQUENCE {

mRB-ID MRB-ID,

bcBearerCtxtF1U-TNLInfoatDU BCBearerContextF1U-TNLInfo,

iE-Extensions ProtocolExtensionContainer { { BroadcastMRBs-Setup-Item-ExtIEs} } OPTIONAL,

...

}

BroadcastMRBs-Setup-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BroadcastMRBs-SetupMod-Item ::= SEQUENCE {

mRB-ID MRB-ID,

bcBearerCtxtF1U-TNLInfoatDU BCBearerContextF1U-TNLInfo,

iE-Extensions ProtocolExtensionContainer { { BroadcastMRBs-SetupMod-Item-ExtIEs} } OPTIONAL,

...

}

BroadcastMRBs-SetupMod-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BroadcastMRBs-ToBeModified-Item ::= SEQUENCE {

mRB-ID MRB-ID,

mRB-QoSInformation QoSFlowLevelQoSParameters OPTIONAL,

mBS-Flows-Mapped-To-MRB-List MBS-Flows-Mapped-To-MRB-List OPTIONAL,

bcBearerCtxtF1U-TNLInfoatCU BCBearerContextF1U-TNLInfo OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { BroadcastMRBs-ToBeModified-Item-ExtIEs} } OPTIONAL,

...

}

BroadcastMRBs-ToBeModified-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BroadcastMRBs-ToBeReleased-Item ::= SEQUENCE {

mRB-ID MRB-ID,

iE-Extensions ProtocolExtensionContainer { { BroadcastMRBs-ToBeReleased-ItemExtIEs } } OPTIONAL,

...

}

BroadcastMRBs-ToBeReleased-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BroadcastMRBs-ToBeSetup-Item ::= SEQUENCE {

mRB-ID MRB-ID,

mRB-QoSInformation QoSFlowLevelQoSParameters,

mBS-Flows-Mapped-To-MRB-List MBS-Flows-Mapped-To-MRB-List,

bcBearerCtxtF1U-TNLInfoatCU BCBearerContextF1U-TNLInfo ,

iE-Extensions ProtocolExtensionContainer { { BroadcastMRBs-ToBeSetup-Item-ExtIEs} },

...

}

BroadcastMRBs-ToBeSetup-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BroadcastMRBs-ToBeSetupMod-Item ::= SEQUENCE {

mRB-ID MRB-ID,

mRB-QoSInformation QoSFlowLevelQoSParameters,

mBS-Flows-Mapped-To-MRB-List MBS-Flows-Mapped-To-MRB-List,

bcBearerCtxtF1U-TNLInfoatCU BCBearerContextF1U-TNLInfo,

iE-Extensions ProtocolExtensionContainer { { BroadcastMRBs-ToBeSetupMod-Item-ExtIEs} },

...

}

BroadcastMRBs-ToBeSetupMod-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BroadcastNIDList ::= SEQUENCE (SIZE(1..maxnoofNIDsupported)) OF NID

BroadcastSNPN-ID-List ::= SEQUENCE (SIZE(1..maxnoofNIDsupported)) OF BroadcastSNPN-ID-List-Item

BroadcastSNPN-ID-List-Item ::= SEQUENCE {

pLMN-Identity PLMN-Identity,

broadcastNIDList BroadcastNIDList,

iE-Extensions ProtocolExtensionContainer { { BroadcastSNPN-ID-List-ItemExtIEs} } OPTIONAL,

...

}

BroadcastSNPN-ID-List-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BroadcastPNI-NPN-ID-List ::= SEQUENCE (SIZE(1..maxnoofCAGsupported)) OF BroadcastPNI-NPN-ID-List-Item

BroadcastPNI-NPN-ID-List-Item ::= SEQUENCE {

pLMN-Identity PLMN-Identity,

broadcastCAGList BroadcastCAGList,

iE-Extensions ProtocolExtensionContainer { { BroadcastPNI-NPN-ID-List-ItemExtIEs} } OPTIONAL,

...

}

BroadcastPNI-NPN-ID-List-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BroadcastAreaScope ::= CHOICE {

completeSuccess NULL,

partialSuccess PartialSuccessCell,

choice-extension ProtocolIE-SingleContainer { { BroadcastAreaScope-ExtIEs } }

}

BroadcastAreaScope-ExtIEs F1AP-PROTOCOL-IES::={

...

}

BroadcastCellList ::= SEQUENCE (SIZE(1.. maxCellingNBDU)) OF Broadcast-Cell-List-Item

Broadcast-Cell-List-Item ::= SEQUENCE {

cellID NRCGI,

iE-Extensions ProtocolExtensionContainer { { Broadcast-Cell-List-ItemExtIEs} } OPTIONAL,

...

}

Broadcast-Cell-List-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

BufferSizeThresh ::= INTEGER(0..16777215)

BurstArrivalTime ::= OCTET STRING

-- C

CAGID ::= BIT STRING (SIZE(32))

Cancel-all-Warning-Messages-Indicator ::= ENUMERATED {true, ...}

Candidate-SpCell-Item ::= SEQUENCE {

candidate-SpCell-ID NRCGI ,

iE-Extensions ProtocolExtensionContainer { { Candidate-SpCell-ItemExtIEs } } OPTIONAL,

...

}

Candidate-SpCell-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

CapacityValue::= SEQUENCE {

capacityValue INTEGER (0..100),

sSBAreaCapacityValueList SSBAreaCapacityValueList OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { CapacityValue-ExtIEs} } OPTIONAL

}

CapacityValue-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Cause ::= CHOICE {

radioNetwork CauseRadioNetwork,

transport CauseTransport,

protocol CauseProtocol,

misc CauseMisc,

choice-extension ProtocolIE-SingleContainer { { Cause-ExtIEs} }

}

Cause-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

CauseMisc ::= ENUMERATED {

control-processing-overload,

not-enough-user-plane-processing-resources,

hardware-failure,

om-intervention,

unspecified,

...

}

CauseProtocol ::= ENUMERATED {

transfer-syntax-error,

abstract-syntax-error-reject,

abstract-syntax-error-ignore-and-notify,

message-not-compatible-with-receiver-state,

semantic-error,

abstract-syntax-error-falsely-constructed-message,

unspecified,

...

}

CauseRadioNetwork ::= ENUMERATED {

unspecified,

rl-failure-rlc,

unknown-or-already-allocated-gnb-cu-ue-f1ap-id,

unknown-or-already-allocated-gnb-du-ue-f1ap-id,

unknown-or-inconsistent-pair-of-ue-f1ap-id,

interaction-with-other-procedure,

not-supported-qci-Value,

action-desirable-for-radio-reasons,

no-radio-resources-available,

procedure-cancelled,

normal-release,

...,

cell-not-available,

rl-failure-others,

ue-rejection,

resources-not-available-for-the-slice,

amf-initiated-abnormal-release,

release-due-to-pre-emption,

plmn-not-served-by-the-gNB-CU,

multiple-drb-id-instances,

unknown-drb-id,

multiple-bh-rlc-ch-id-instances,

unknown-bh-rlc-ch-id,

cho-cpc-resources-tobechanged,

nPN-not-supported,

nPN-access-denied,

gNB-CU-Cell-Capacity-Exceeded,

report-characteristics-empty,

existing-measurement-ID,

measurement-temporarily-not-available,

measurement-not-supported-for-the-object,

unknown-bh-address,

unknown-bap-routing-id,

insufficient-ue-capabilities,

scg-activation-deactivation-failure,

scg-deactivation-failure-due-to-data-transmission,

requested-item-not-supported-on-time,

unknown-or-already-allocated-gNB-CU-MBS-F1AP-ID,

unknown-or-already-allocated-gNB-DU-MBS-F1AP-ID,

unknown-or-inconsistent-pair-of-MBS-F1AP-ID,

unknown-or-inconsistent-MRB-ID,

tat-sdt-expiry

}

CauseTransport ::= ENUMERATED {

unspecified,

transport-resource-unavailable,

...,

unknown-TNL-address-for-IAB,

unknown-UP-TNL-information-for-IAB

}

CellGroupConfig ::= OCTET STRING

CellCapacityClassValue ::= INTEGER (1..100,...)

Cell-Direction ::= ENUMERATED {dl-only, ul-only}

CellMeasurementResultList ::= SEQUENCE (SIZE(1.. maxCellingNBDU)) OF CellMeasurementResultItem

CellMeasurementResultItem ::= SEQUENCE {

cellID NRCGI,

radioResourceStatus RadioResourceStatus OPTIONAL,

compositeAvailableCapacityGroup CompositeAvailableCapacityGroup OPTIONAL,

sliceAvailableCapacity SliceAvailableCapacity OPTIONAL,

numberofActiveUEs NumberofActiveUEs OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { CellMeasurementResultItem-ExtIEs} } OPTIONAL

}

CellMeasurementResultItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-NR-U-Channel-List CRITICALITY ignore EXTENSION NR-U-Channel-List PRESENCE optional },

...

}

Cell-Portion-ID ::= INTEGER (0..4095,...)

CellsForSON-List ::= SEQUENCE (SIZE(1.. maxServedCellforSON)) OF CellsForSON-Item

CellsForSON-Item ::= SEQUENCE {

nRCGI NRCGI,

neighbourNR-CellsForSON-List NeighbourNR-CellsForSON-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { CellsForSON-Item-ExtIEs} } OPTIONAL,

...

}

CellsForSON-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Cells-Failed-to-be-Activated-List-Item ::= SEQUENCE {

nRCGI NRCGI,

cause Cause,

iE-Extensions ProtocolExtensionContainer { { Cells-Failed-to-be-Activated-List-ItemExtIEs } } OPTIONAL,

...

}

Cells-Failed-to-be-Activated-List-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Cells-Status-Item ::= SEQUENCE {

nRCGI NRCGI,

service-status Service-Status,

iE-Extensions ProtocolExtensionContainer { { Cells-Status-ItemExtIEs } } OPTIONAL,

...

}

Cells-Status-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Cells-To-Be-Broadcast-Item ::= SEQUENCE {

nRCGI NRCGI,

iE-Extensions ProtocolExtensionContainer { { Cells-To-Be-Broadcast-ItemExtIEs } } OPTIONAL,

...

}

Cells-To-Be-Broadcast-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Cells-Broadcast-Completed-Item ::= SEQUENCE {

nRCGI NRCGI,

iE-Extensions ProtocolExtensionContainer { { Cells-Broadcast-Completed-ItemExtIEs } } OPTIONAL,

...

}

Cells-Broadcast-Completed-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Broadcast-To-Be-Cancelled-Item ::= SEQUENCE {

nRCGI NRCGI,

iE-Extensions ProtocolExtensionContainer { { Broadcast-To-Be-Cancelled-ItemExtIEs } } OPTIONAL,

...

}

Broadcast-To-Be-Cancelled-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Cells-Broadcast-Cancelled-Item ::= SEQUENCE {

nRCGI NRCGI,

numberOfBroadcasts NumberOfBroadcasts,

iE-Extensions ProtocolExtensionContainer { { Cells-Broadcast-Cancelled-ItemExtIEs } } OPTIONAL,

...

}

Cells-Broadcast-Cancelled-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Cells-to-be-Activated-List-Item ::= SEQUENCE {

nRCGI NRCGI,

nRPCI NRPCI OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Cells-to-be-Activated-List-ItemExtIEs} } OPTIONAL,

...

}

Cells-to-be-Activated-List-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-gNB-CUSystemInformation CRITICALITY reject EXTENSION GNB-CUSystemInformation PRESENCE optional }|

{ ID id-AvailablePLMNList CRITICALITY ignore EXTENSION AvailablePLMNList PRESENCE optional }|

{ ID id-ExtendedAvailablePLMN-List CRITICALITY ignore EXTENSION ExtendedAvailablePLMN-List PRESENCE optional }|

{ ID id-IAB-Info-IAB-donor-CU CRITICALITY ignore EXTENSION IAB-Info-IAB-donor-CU PRESENCE optional}|

{ ID id-AvailableSNPN-ID-List CRITICALITY ignore EXTENSION AvailableSNPN-ID-List PRESENCE optional }|

{ ID id-MBS-Broadcast-NeighbourCellList CRITICALITY ignore EXTENSION MBS-Broadcast-NeighbourCellList PRESENCE optional },

...

}

Cells-to-be-Deactivated-List-Item ::= SEQUENCE {

nRCGI NRCGI ,

iE-Extensions ProtocolExtensionContainer { { Cells-to-be-Deactivated-List-ItemExtIEs } } OPTIONAL,

...

}

Cells-to-be-Deactivated-List-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Cells-to-be-Barred-Item::= SEQUENCE {

nRCGI NRCGI ,

cellBarred CellBarred,

iE-Extensions ProtocolExtensionContainer { { Cells-to-be-Barred-Item-ExtIEs } } OPTIONAL

}

Cells-to-be-Barred-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-IAB-Barred CRITICALITY ignore EXTENSION IAB-Barred PRESENCE optional },

...

}

CellBarred ::= ENUMERATED {barred, not-barred, ...}

CellSize ::= ENUMERATED {verysmall, small, medium, large, ...}

CellToReportList ::= SEQUENCE (SIZE(1.. maxCellingNBDU)) OF CellToReportItem

CellToReportItem ::= SEQUENCE {

cellID NRCGI,

sSBToReportList SSBToReportList OPTIONAL,

sliceToReportList SliceToReportList OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { CellToReportItem-ExtIEs} } OPTIONAL

}

CellToReportItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

CellType ::= SEQUENCE {

cellSize CellSize,

iE-Extensions ProtocolExtensionContainer { {CellType-ExtIEs} } OPTIONAL,

...

}

CellType-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

CellULConfigured ::= ENUMERATED {none, ul, sul, ul-and-sul, ...}

CG-SDTQueryIndication ::= ENUMERATED {true, ...}

CG-SDTKeptIndicator ::= ENUMERATED {true, ...}

CG-SDTindicatorSetup ::= ENUMERATED {true, ...}

CG-SDTindicatorMod ::= ENUMERATED {true, false, ...}

CG-SDTSessionInfo ::= SEQUENCE {

gNB-CU-UE-F1AP-ID GNB-CU-UE-F1AP-ID,

gNB-DU-UE-F1AP-ID GNB-DU-UE-F1AP-ID,

iE-Extensions ProtocolExtensionContainer {{CG-SDTSessionInfo-ExtIEs}} OPTIONAL,

...

}

CG-SDTSessionInfo-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

ChannelOccupancyTimePercentage ::= INTEGER (0..100,...)

Child-IAB-Nodes-NA-Resource-List ::= SEQUENCE (SIZE(1..maxnoofChildIABNodes)) OF Child-IAB-Nodes-NA-Resource-List-Item

Child-IAB-Nodes-NA-Resource-List-Item::= SEQUENCE {

gNB-CU-UE-F1AP-ID GNB-CU-UE-F1AP-ID,

gNB-DU-UE-F1AP-ID GNB-DU-UE-F1AP-ID,

nA-Resource-Configuration-List NA-Resource-Configuration-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Child-IAB-Nodes-NA-Resource-List-Item-ExtIEs} } OPTIONAL

}

Child-IAB-Nodes-NA-Resource-List-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Child-Node-Cells-List ::= SEQUENCE (SIZE(1..maxnoofChildIABNodes)) OF Child-Node-Cells-List-Item

Child-Node-Cells-List-Item ::= SEQUENCE{

nRCGI NRCGI,

iAB-DU-Cell-Resource-Configuration-Mode-Info IAB-DU-Cell-Resource-Configuration-Mode-Info OPTIONAL,

iAB-STC-Info IAB-STC-Info OPTIONAL,

rACH-Config-Common RACH-Config-Common OPTIONAL,

rACH-Config-Common-IAB RACH-Config-Common-IAB OPTIONAL,

cSI-RS-Configuration OCTET STRING OPTIONAL,

sR-Configuration OCTET STRING OPTIONAL,

pDCCH-ConfigSIB1 OCTET STRING OPTIONAL,

sCS-Common OCTET STRING OPTIONAL,

multiplexingInfo MultiplexingInfo OPTIONAL,

iE-Extensions ProtocolExtensionContainer {{Child-Node-Cells-List-Item-ExtIEs}} OPTIONAL

}

Child-Node-Cells-List-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Child-Nodes-List ::= SEQUENCE (SIZE(1..maxnoofChildIABNodes)) OF Child-Nodes-List-Item

Child-Nodes-List-Item ::= SEQUENCE{

gNB-CU-UE-F1AP-ID GNB-CU-UE-F1AP-ID,

gNB-DU-UE-F1AP-ID GNB-DU-UE-F1AP-ID,

child-Node-Cells-List Child-Node-Cells-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer {{Child-Nodes-List-Item-ExtIEs}} OPTIONAL

}

Child-Nodes-List-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

CHOtrigger-InterDU ::= ENUMERATED {

cho-initiation,

cho-replace,

...

}

CHOtrigger-IntraDU ::= ENUMERATED {

cho-initiation,

cho-replace,

cho-cancel,

...

}

CNSubgroupID ::= INTEGER (0..7, ...)

CNUEPagingIdentity ::= CHOICE {

fiveG-S-TMSI BIT STRING (SIZE(48)),

choice-extension ProtocolIE-SingleContainer { { CNUEPagingIdentity-ExtIEs } }

}

CNUEPagingIdentity-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

CompositeAvailableCapacityGroup ::= SEQUENCE {

compositeAvailableCapacityDownlink CompositeAvailableCapacity,

compositeAvailableCapacityUplink CompositeAvailableCapacity,

iE-Extensions ProtocolExtensionContainer { { CompositeAvailableCapacityGroup-ExtIEs} } OPTIONAL

}

CompositeAvailableCapacityGroup-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-CompositeAvailableCapacity-SUL CRITICALITY ignore EXTENSION CompositeAvailableCapacity PRESENCE optional },

...

}

CompositeAvailableCapacity ::= SEQUENCE {

cellCapacityClassValue CellCapacityClassValue OPTIONAL,

capacityValue CapacityValue,

iE-Extensions ProtocolExtensionContainer { { CompositeAvailableCapacity-ExtIEs} } OPTIONAL

}

CompositeAvailableCapacity-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

CHO-Probability ::= INTEGER (1..100)

ConditionalInterDUMobilityInformation ::= SEQUENCE {

cho-trigger CHOtrigger-InterDU,

targetgNB-DUUEF1APID GNB-DU-UE-F1AP-ID OPTIONAL

-- This IE shall be present if the cho-trigger IE is present and set to "cho-replace" --,

iE-Extensions ProtocolExtensionContainer { { ConditionalInterDUMobilityInformation-ExtIEs} } OPTIONAL,

...

}

ConditionalInterDUMobilityInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::={

{ ID id-EstimatedArrivalProbability CRITICALITY ignore EXTENSION CHO-Probability PRESENCE optional },

...

}

ConditionalIntraDUMobilityInformation ::= SEQUENCE {

cho-trigger CHOtrigger-IntraDU,

targetCellsTocancel TargetCellList OPTIONAL,

-- This IE may be present if the cho-trigger IE is present and set to "cho-cancel"

iE-Extensions ProtocolExtensionContainer { { ConditionalIntraDUMobilityInformation-ExtIEs} } OPTIONAL,

...

}

ConditionalIntraDUMobilityInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::={

{ ID id-EstimatedArrivalProbability CRITICALITY ignore EXTENSION CHO-Probability PRESENCE optional },

...

}

ConfigRestrictInfoDAPS ::= OCTET STRING

ConfiguredTACIndication ::= ENUMERATED {

true,

...

}

CoordinateID ::= INTEGER (0..511, ...)

Coverage-Modification-Notification ::= SEQUENCE {

coverage-Modification-List Coverage-Modification-List,

iE-Extensions ProtocolExtensionContainer { { Coverage-Modification-Notification-ExtIEs} } OPTIONAL,

...

}

Coverage-Modification-Notification-ExtIEs F1AP-PROTOCOL-EXTENSION ::={

...

}

Coverage-Modification-List ::= SEQUENCE (SIZE (1..maxCellingNBDU)) OF Coverage-Modification-Item

Coverage-Modification-Item ::= SEQUENCE {

nRCGI NRCGI,

cellCoverageState CellCoverageState,

sSBCoverageModificationList SSBCoverageModification-List OPTIONAL,

iE-Extension ProtocolExtensionContainer { { Coverage-Modification-Item-ExtIEs} } OPTIONAL,

...

}

Coverage-Modification-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

CellCoverageState ::= INTEGER (0..63, ...)

CCO-Assistance-Information ::= SEQUENCE {

cCO-issue-detection CCO-issue-detection OPTIONAL,

affectedCellsAndBeams-List AffectedCellsAndBeams-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { CCO-Assistance-Information-ExtIEs} } OPTIONAL,

...

}

CCO-Assistance-Information-ExtIEs F1AP-PROTOCOL-EXTENSION ::={

...

}

CCO-issue-detection ::= ENUMERATED {

coverage,

cell-edge-capacity,

...}

CP-TransportLayerAddress ::= CHOICE {

endpoint-IP-address TransportLayerAddress,

endpoint-IP-address-and-port Endpoint-IP-address-and-port,

choice-extension ProtocolIE-SingleContainer { { CP-TransportLayerAddress-ExtIEs } }

}

CP-TransportLayerAddress-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

CPACMCGInformation ::= SEQUENCE {

cpac-trigger CPAC-trigger,

pscellid NRCGI,

iE-Extensions ProtocolExtensionContainer { { CPACMCGInformation-ExtIEs} } OPTIONAL,

...

}

CPACMCGInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

CPAC-trigger ::= ENUMERATED {

cpac-preparation,

cpac-executed,

...

}

CPTrafficType ::= INTEGER (1..3,...)

CriticalityDiagnostics ::= SEQUENCE {

procedureCode ProcedureCode OPTIONAL,

triggeringMessage TriggeringMessage OPTIONAL,

procedureCriticality Criticality OPTIONAL,

transactionID TransactionID OPTIONAL,

iEsCriticalityDiagnostics CriticalityDiagnostics-IE-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer {{CriticalityDiagnostics-ExtIEs}} OPTIONAL,

...

}

CriticalityDiagnostics-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1.. maxnoofErrors)) OF CriticalityDiagnostics-IE-Item

CriticalityDiagnostics-IE-Item ::= SEQUENCE {

iECriticality Criticality,

iE-ID ProtocolIE-ID,

typeOfError TypeOfError,

iE-Extensions ProtocolExtensionContainer {{CriticalityDiagnostics-IE-Item-ExtIEs}} OPTIONAL,

...

}

CriticalityDiagnostics-IE-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

C-RNTI ::= INTEGER (0..65535, ...)

CUDURadioInformationType ::= CHOICE {

rIM CUDURIMInformation,

choice-extension ProtocolIE-SingleContainer { { CUDURadioInformationType-ExtIEs} }

}

CUDURadioInformationType-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

CUDURIMInformation ::= SEQUENCE {

victimgNBSetID GNBSetID,

rIMRSDetectionStatus RIMRSDetectionStatus,

iE-Extensions ProtocolExtensionContainer { { CUDURIMInformation-ExtIEs} } OPTIONAL

}

CUDURIMInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

CUtoDURRCInformation ::= SEQUENCE {

cG-ConfigInfo CG-ConfigInfo OPTIONAL,

uE-CapabilityRAT-ContainerList UE-CapabilityRAT-ContainerList OPTIONAL,

measConfig MeasConfig OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { CUtoDURRCInformation-ExtIEs} } OPTIONAL,

...

}

CUtoDURRCInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-HandoverPreparationInformation CRITICALITY ignore EXTENSION HandoverPreparationInformation PRESENCE optional }|

{ ID id-CellGroupConfig CRITICALITY ignore EXTENSION CellGroupConfig PRESENCE optional }|

{ ID id-MeasurementTimingConfiguration CRITICALITY ignore EXTENSION MeasurementTimingConfiguration PRESENCE optional }|

{ ID id-UEAssistanceInformation CRITICALITY ignore EXTENSION UEAssistanceInformation PRESENCE optional }|

{ ID id-CG-Config CRITICALITY ignore EXTENSION CG-Config PRESENCE optional }|

{ ID id-UEAssistanceInformationEUTRA CRITICALITY ignore EXTENSION UEAssistanceInformationEUTRA PRESENCE optional }|

{ ID id-LocationMeasurementInformation CRITICALITY ignore EXTENSION LocationMeasurementInformation PRESENCE optional }|

{ ID id-MUSIM-GapConfig CRITICALITY reject EXTENSION MUSIM-GapConfig PRESENCE optional }|

{ ID id-SDT-MAC-PHY-CG-Config CRITICALITY ignore EXTENSION SDT-MAC-PHY-CG-Config PRESENCE optional }|

{ ID id-MBSInterestIndication CRITICALITY ignore EXTENSION MBSInterestIndication PRESENCE optional }|

{ ID id-NeedForGapsInfoNR CRITICALITY ignore EXTENSION NeedForGapsInfoNR PRESENCE optional }|

{ ID id-NeedForGapNCSGInfoNR CRITICALITY ignore EXTENSION NeedForGapNCSGInfoNR PRESENCE optional }|

{ ID id-NeedForGapNCSGInfoEUTRA CRITICALITY ignore EXTENSION NeedForGapNCSGInfoEUTRA PRESENCE optional }|

{ ID id-ConfigRestrictInfoDAPS CRITICALITY ignore EXTENSION ConfigRestrictInfoDAPS PRESENCE optional },

...

}

-- D

DAPS-HO-Status::= ENUMERATED{initiation,... }

DCBasedDuplicationConfigured::= ENUMERATED{true,..., false}

Dedicated-SIDelivery-NeededUE-Item ::= SEQUENCE {

gNB-CU-UE-F1AP-ID GNB-CU-UE-F1AP-ID,

nRCGI NRCGI,

iE-Extensions ProtocolExtensionContainer { { DedicatedSIDeliveryNeededUE-Item-ExtIEs} } OPTIONAL,

...

}

DedicatedSIDeliveryNeededUE-Item-ExtIEs F1AP-PROTOCOL-EXTENSION::={

...

}

DL-PRS ::= SEQUENCE {

prsid INTEGER (0..255),

dl-PRSResourceSetID PRS-Resource-Set-ID,

dl-PRSResourceID PRS-Resource-ID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {DL-PRS-ExtIEs} } OPTIONAL

}

DL-PRS-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

DL-PRSMutingPattern ::= CHOICE {

two BIT STRING (SIZE(2)),

four BIT STRING (SIZE(4)),

six BIT STRING (SIZE(6)),

eight BIT STRING (SIZE(8)),

sixteen BIT STRING (SIZE(16)),

thirty-two BIT STRING (SIZE(32)),

choice-extension ProtocolIE-SingleContainer { { DL-PRSMutingPattern-ExtIEs } }

}

DL-PRSMutingPattern-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

DLPRSResourceCoordinates ::= SEQUENCE {

listofDL-PRSResourceSetARP SEQUENCE (SIZE(1.. maxnoofPRS-ResourceSets)) OF DLPRSResourceSetARP,

iE-Extensions ProtocolExtensionContainer { { DLPRSResourceCoordinates-ExtIEs } } OPTIONAL

}

DLPRSResourceCoordinates-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

DLPRSResourceSetARP ::= SEQUENCE {

dl-PRSResourceSetID PRS-Resource-Set-ID,

dL-PRSResourceSetARPLocation DL-PRSResourceSetARPLocation,

listofDL-PRSResourceARP SEQUENCE (SIZE(1.. maxnoofPRS-ResourcesPerSet)) OF DLPRSResourceARP,

iE-Extensions ProtocolExtensionContainer { { DLPRSResourceSetARP-ExtIEs } } OPTIONAL

}

DLPRSResourceSetARP-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

DL-PRSResourceSetARPLocation ::= CHOICE {

relativeGeodeticLocation RelativeGeodeticLocation,

relativeCartesianLocation RelativeCartesianLocation,

choice-Extension ProtocolIE-SingleContainer { { DL-PRSResourceSetARPLocation-ExtIEs } }

}

DL-PRSResourceSetARPLocation-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

DLPRSResourceARP ::= SEQUENCE {

dl-PRSResourceID PRS-Resource-ID,

dL-PRSResourceARPLocation DL-PRSResourceARPLocation,

iE-Extensions ProtocolExtensionContainer { { DLPRSResourceARP-ExtIEs } } OPTIONAL

}

DLPRSResourceARP-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

DL-PRSResourceARPLocation ::= CHOICE {

relativeGeodeticLocation RelativeGeodeticLocation,

relativeCartesianLocation RelativeCartesianLocation,

choice-Extension ProtocolIE-SingleContainer { { DL-PRSResourceARPLocation-ExtIEs } }

}

DL-PRSResourceARPLocation-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

DL-UP-TNL-Address-to-Update-List-Item ::= SEQUENCE {

oldIPAdress TransportLayerAddress,

newIPAdress TransportLayerAddress,

iE-Extensions ProtocolExtensionContainer { { DL-UP-TNL-Address-to-Update-List-ItemExtIEs } } OPTIONAL,

...

}

DL-UP-TNL-Address-to-Update-List-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

DLUPTNLInformation-ToBeSetup-List ::= SEQUENCE (SIZE(1..maxnoofDLUPTNLInformation)) OF DLUPTNLInformation-ToBeSetup-Item

DLUPTNLInformation-ToBeSetup-Item ::= SEQUENCE {

dLUPTNLInformation UPTransportLayerInformation ,

iE-Extensions ProtocolExtensionContainer { { DLUPTNLInformation-ToBeSetup-ItemExtIEs } } OPTIONAL,

...

}

DLUPTNLInformation-ToBeSetup-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Activity-Item ::= SEQUENCE {

dRBID DRBID,

dRB-Activity DRB-Activity OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRB-Activity-ItemExtIEs } } OPTIONAL,

...

}

DRB-Activity-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Activity ::= ENUMERATED {active, not-active}

DRBID ::= INTEGER (1..32, ...)

DRBs-FailedToBeModified-Item ::= SEQUENCE {

dRBID DRBID ,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRBs-FailedToBeModified-ItemExtIEs } } OPTIONAL,

...

}

DRBs-FailedToBeModified-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

DRBs-FailedToBeSetup-Item ::= SEQUENCE {

dRBID DRBID,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRBs-FailedToBeSetup-ItemExtIEs } } OPTIONAL,

...

}

DRBs-FailedToBeSetup-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

DRBs-FailedToBeSetupMod-Item ::= SEQUENCE {

dRBID DRBID ,

cause Cause OPTIONAL ,

iE-Extensions ProtocolExtensionContainer { { DRBs-FailedToBeSetupMod-ItemExtIEs } } OPTIONAL,

...

}

DRBs-FailedToBeSetupMod-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Information ::= SEQUENCE {

dRB-QoS QoSFlowLevelQoSParameters,

sNSSAI SNSSAI,

notificationControl NotificationControl OPTIONAL,

flows-Mapped-To-DRB-List Flows-Mapped-To-DRB-List,

iE-Extensions ProtocolExtensionContainer { { DRB-Information-ItemExtIEs } } OPTIONAL

}

DRB-Information-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

DRBs-Modified-Item ::= SEQUENCE {

dRBID DRBID,

lCID LCID OPTIONAL,

dLUPTNLInformation-ToBeSetup-List DLUPTNLInformation-ToBeSetup-List,

iE-Extensions ProtocolExtensionContainer { { DRBs-Modified-ItemExtIEs } } OPTIONAL,

...

}

DRBs-Modified-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-RLC-Status CRITICALITY ignore EXTENSION RLC-Status PRESENCE optional }|

{ ID id-AdditionalPDCPDuplicationTNL-List CRITICALITY ignore EXTENSION AdditionalPDCPDuplicationTNL-List PRESENCE optional }|

{ ID id-CurrentQoSParaSetIndex CRITICALITY ignore EXTENSION QoSParaSetIndex PRESENCE optional },

...

}

DRBs-ModifiedConf-Item ::= SEQUENCE {

dRBID DRBID,

uLUPTNLInformation-ToBeSetup-List ULUPTNLInformation-ToBeSetup-List ,

iE-Extensions ProtocolExtensionContainer { { DRBs-ModifiedConf-ItemExtIEs } } OPTIONAL,

...

}

DRBs-ModifiedConf-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-AdditionalPDCPDuplicationTNL-List CRITICALITY ignore EXTENSION AdditionalPDCPDuplicationTNL-List PRESENCE optional },

...

}

DRB-Notify-Item ::= SEQUENCE {

dRBID DRBID,

notification-Cause Notification-Cause,

iE-Extensions ProtocolExtensionContainer { { DRB-Notify-ItemExtIEs } } OPTIONAL,

...

}

DRB-Notify-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-CurrentQoSParaSetIndex CRITICALITY ignore EXTENSION QoSParaSetNotifyIndex PRESENCE optional },

...

}

DRBs-Required-ToBeModified-Item ::= SEQUENCE {

dRBID DRBID,

dLUPTNLInformation-ToBeSetup-List DLUPTNLInformation-ToBeSetup-List ,

iE-Extensions ProtocolExtensionContainer { { DRBs-Required-ToBeModified-ItemExtIEs } } OPTIONAL,

...

}

DRBs-Required-ToBeModified-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-RLC-Status CRITICALITY ignore EXTENSION RLC-Status PRESENCE optional }|

{ ID id-AdditionalPDCPDuplicationTNL-List CRITICALITY ignore EXTENSION AdditionalPDCPDuplicationTNL-List PRESENCE optional },

...

}

DRBs-Required-ToBeReleased-Item ::= SEQUENCE {

dRBID DRBID,

iE-Extensions ProtocolExtensionContainer { { DRBs-Required-ToBeReleased-ItemExtIEs } } OPTIONAL,

...

}

DRBs-Required-ToBeReleased-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

DRBs-Setup-Item ::= SEQUENCE {

dRBID DRBID,

lCID LCID OPTIONAL,

dLUPTNLInformation-ToBeSetup-List DLUPTNLInformation-ToBeSetup-List ,

iE-Extensions ProtocolExtensionContainer { { DRBs-Setup-ItemExtIEs } } OPTIONAL,

...

}

DRBs-Setup-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-AdditionalPDCPDuplicationTNL-List CRITICALITY ignore EXTENSION AdditionalPDCPDuplicationTNL-List PRESENCE optional }|

{ ID id-CurrentQoSParaSetIndex CRITICALITY ignore EXTENSION QoSParaSetIndex PRESENCE optional },

...

}

DRBs-SetupMod-Item ::= SEQUENCE {

dRBID DRBID,

lCID LCID OPTIONAL,

dLUPTNLInformation-ToBeSetup-List DLUPTNLInformation-ToBeSetup-List ,

iE-Extensions ProtocolExtensionContainer { { DRBs-SetupMod-ItemExtIEs } } OPTIONAL,

...

}

DRBs-SetupMod-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-AdditionalPDCPDuplicationTNL-List CRITICALITY ignore EXTENSION AdditionalPDCPDuplicationTNL-List PRESENCE optional }|

{ ID id-CurrentQoSParaSetIndex CRITICALITY ignore EXTENSION QoSParaSetIndex PRESENCE optional },

...

}

DRBs-ToBeModified-Item ::= SEQUENCE {

dRBID DRBID,

qoSInformation QoSInformation OPTIONAL,

uLUPTNLInformation-ToBeSetup-List ULUPTNLInformation-ToBeSetup-List ,

uLConfiguration ULConfiguration OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRBs-ToBeModified-ItemExtIEs } } OPTIONAL,

...

}

DRBs-ToBeModified-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-DLPDCPSNLength CRITICALITY ignore EXTENSION PDCPSNLength PRESENCE optional }|

{ ID id-ULPDCPSNLength CRITICALITY ignore EXTENSION PDCPSNLength PRESENCE optional }|

{ID id-BearerTypeChange CRITICALITY ignore EXTENSION BearerTypeChange PRESENCE optional}|

{ ID id-RLCMode CRITICALITY ignore EXTENSION RLCMode PRESENCE optional }|

{ ID id-Duplication-Activation CRITICALITY reject EXTENSION DuplicationActivation PRESENCE optional }|

{ ID id-DC-Based-Duplication-Configured CRITICALITY reject EXTENSION DCBasedDuplicationConfigured PRESENCE optional }|

{ ID id-DC-Based-Duplication-Activation CRITICALITY reject EXTENSION DuplicationActivation PRESENCE optional }|

{ ID id-AdditionalPDCPDuplicationTNL-List CRITICALITY ignore EXTENSION AdditionalPDCPDuplicationTNL-List PRESENCE optional }|

{ ID id-RLCDuplicationInformation CRITICALITY ignore EXTENSION RLCDuplicationInformation PRESENCE optional}|

{ ID id-TransmissionStopIndicator CRITICALITY ignore EXTENSION TransmissionStopIndicator PRESENCE optional}|

{ ID id-CG-SDTindicatorMod CRITICALITY reject EXTENSION CG-SDTindicatorMod PRESENCE optional },

...

}

DRBs-ToBeReleased-Item ::= SEQUENCE {

dRBID DRBID,

iE-Extensions ProtocolExtensionContainer { { DRBs-ToBeReleased-ItemExtIEs } } OPTIONAL,

...

}

DRBs-ToBeReleased-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

DRBs-ToBeSetup-Item ::= SEQUENCE {

dRBID DRBID,

qoSInformation QoSInformation,

uLUPTNLInformation-ToBeSetup-List ULUPTNLInformation-ToBeSetup-List ,

rLCMode RLCMode,

uLConfiguration ULConfiguration OPTIONAL,

duplicationActivation DuplicationActivation OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRBs-ToBeSetup-ItemExtIEs } } OPTIONAL,

...

}

DRBs-ToBeSetup-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-DC-Based-Duplication-Configured CRITICALITY reject EXTENSION DCBasedDuplicationConfigured PRESENCE optional }|

{ ID id-DC-Based-Duplication-Activation CRITICALITY reject EXTENSION DuplicationActivation PRESENCE optional }|

{ ID id-DLPDCPSNLength CRITICALITY ignore EXTENSION PDCPSNLength PRESENCE mandatory }|

{ ID id-ULPDCPSNLength CRITICALITY ignore EXTENSION PDCPSNLength PRESENCE optional }|

{ ID id-AdditionalPDCPDuplicationTNL-List CRITICALITY ignore EXTENSION AdditionalPDCPDuplicationTNL-List PRESENCE optional }|

{ ID id-RLCDuplicationInformation CRITICALITY ignore EXTENSION RLCDuplicationInformation PRESENCE optional}|

{ ID id-SDTRLCBearerConfiguration CRITICALITY ignore EXTENSION SDTRLCBearerConfiguration PRESENCE optional },

...

}

DRBs-ToBeSetupMod-Item ::= SEQUENCE {

dRBID DRBID,

qoSInformation QoSInformation,

uLUPTNLInformation-ToBeSetup-List ULUPTNLInformation-ToBeSetup-List,

rLCMode RLCMode,

uLConfiguration ULConfiguration OPTIONAL,

duplicationActivation DuplicationActivation OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRBs-ToBeSetupMod-ItemExtIEs } } OPTIONAL,

...

}

DRBs-ToBeSetupMod-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-DC-Based-Duplication-Configured CRITICALITY reject EXTENSION DCBasedDuplicationConfigured PRESENCE optional }|

{ ID id-DC-Based-Duplication-Activation CRITICALITY reject EXTENSION DuplicationActivation PRESENCE optional }|

{ ID id-DLPDCPSNLength CRITICALITY ignore EXTENSION PDCPSNLength PRESENCE optional }|

{ ID id-ULPDCPSNLength CRITICALITY ignore EXTENSION PDCPSNLength PRESENCE optional }|

{ ID id-AdditionalPDCPDuplicationTNL-List CRITICALITY ignore EXTENSION AdditionalPDCPDuplicationTNL-List PRESENCE optional }|

{ ID id-RLCDuplicationInformation CRITICALITY ignore EXTENSION RLCDuplicationInformation PRESENCE optional}|

{ ID id-CG-SDTindicatorSetup CRITICALITY reject EXTENSION CG-SDTindicatorSetup PRESENCE optional },

...

}

DRXCycle ::= SEQUENCE {

longDRXCycleLength LongDRXCycleLength,

shortDRXCycleLength ShortDRXCycleLength OPTIONAL,

shortDRXCycleTimer ShortDRXCycleTimer OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRXCycle-ExtIEs} } OPTIONAL,

...

}

DRXCycle-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

DRX-Config ::= OCTET STRING

DRXConfigurationIndicator ::= ENUMERATED{ release, ...}

DRX-LongCycleStartOffset ::= INTEGER (0..10239)

DSInformationList ::= SEQUENCE (SIZE(0..maxnoofDSInfo)) OF DSCP

DSCP ::= BIT STRING (SIZE (6))

DUtoCURRCContainer ::= OCTET STRING

DUCURadioInformationType ::= CHOICE {

rIM DUCURIMInformation,

choice-extension ProtocolIE-SingleContainer { { DUCURadioInformationType-ExtIEs} }

}

DUCURadioInformationType-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

DUCURIMInformation ::= SEQUENCE {

victimgNBSetID GNBSetID,

rIMRSDetectionStatus RIMRSDetectionStatus,

aggressorCellList AggressorCellList,

iE-Extensions ProtocolExtensionContainer { { DUCURIMInformation-ExtIEs} } OPTIONAL

}

DUCURIMInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

DUF-Slot-Config-Item ::= CHOICE {

explicitFormat ExplicitFormat,

implicitFormat ImplicitFormat,

choice-extension ProtocolIE-SingleContainer { { DUF-Slot-Config-Item-ExtIEs} }

}

DUF-Slot-Config-Item-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

DUF-Slot-Config-List ::= SEQUENCE (SIZE(1..maxnoofDUFSlots)) OF DUF-Slot-Config-Item

DUFSlotformatIndex ::= INTEGER(0..254)

DUFTransmissionPeriodicity ::= ENUMERATED { ms0p5, ms0p625, ms1, ms1p25, ms2, ms2p5, ms5, ms10, ...}

DU-RX-MT-RX ::= ENUMERATED {supported, not-supported }

DU-TX-MT-TX ::= ENUMERATED {supported, not-supported }

DU-RX-MT-TX ::= ENUMERATED {supported, not-supported }

DU-TX-MT-RX ::= ENUMERATED {supported, not-supported }

DU-RX-MT-RX-Extend ::= ENUMERATED {supported, not-supported, supported-and-FDM-required, ...}

DU-TX-MT-TX-Extend ::= ENUMERATED {supported, not-supported, supported-and-FDM-required, ...}

DU-RX-MT-TX-Extend ::= ENUMERATED {supported, not-supported, supported-and-FDM-required, ...}

DU-TX-MT-RX-Extend ::= ENUMERATED {supported, not-supported, supported-and-FDM-required, ...}

DUtoCURRCInformation ::= SEQUENCE {

cellGroupConfig CellGroupConfig,

measGapConfig MeasGapConfig OPTIONAL,

requestedP-MaxFR1 OCTET STRING OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DUtoCURRCInformation-ExtIEs} } OPTIONAL,

...

}

DUtoCURRCInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-DRX-LongCycleStartOffset CRITICALITY ignore EXTENSION DRX-LongCycleStartOffset PRESENCE optional }|

{ ID id-SelectedBandCombinationIndex CRITICALITY ignore EXTENSION SelectedBandCombinationIndex PRESENCE optional }|

{ ID id-SelectedFeatureSetEntryIndex CRITICALITY ignore EXTENSION SelectedFeatureSetEntryIndex PRESENCE optional }|

{ ID id-Ph-InfoSCG CRITICALITY ignore EXTENSION Ph-InfoSCG PRESENCE optional }|

{ ID id-RequestedBandCombinationIndex CRITICALITY ignore EXTENSION RequestedBandCombinationIndex PRESENCE optional }|

{ ID id-RequestedFeatureSetEntryIndex CRITICALITY ignore EXTENSION RequestedFeatureSetEntryIndex PRESENCE optional }|

{ ID id-DRX-Config CRITICALITY ignore EXTENSION DRX-Config PRESENCE optional }|

{ ID id-PDCCH-BlindDetectionSCG CRITICALITY ignore EXTENSION PDCCH-BlindDetectionSCG PRESENCE optional }|

{ ID id-Requested-PDCCH-BlindDetectionSCG CRITICALITY ignore EXTENSION Requested-PDCCH-BlindDetectionSCG PRESENCE optional }|

{ ID id-Ph-InfoMCG CRITICALITY ignore EXTENSION Ph-InfoMCG PRESENCE optional }|

{ ID id-MeasGapSharingConfig CRITICALITY ignore EXTENSION MeasGapSharingConfig PRESENCE optional }|

{ ID id-SL-PHY-MAC-RLC-Config CRITICALITY ignore EXTENSION SL-PHY-MAC-RLC-Config PRESENCE optional }|

{ ID id-SL-ConfigDedicatedEUTRA-Info CRITICALITY ignore EXTENSION SL-ConfigDedicatedEUTRA-Info PRESENCE optional }|

{ ID id-RequestedP-MaxFR2 CRITICALITY ignore EXTENSION RequestedP-MaxFR2 PRESENCE optional }|

{ ID id-SDT-MAC-PHY-CG-Config CRITICALITY ignore EXTENSION SDT-MAC-PHY-CG-Config PRESENCE optional }|

{ ID id-MUSIM-GapConfig CRITICALITY ignore EXTENSION MUSIM-GapConfig PRESENCE optional }|

{ ID id-SL-RLC-ChannelToAddModList CRITICALITY ignore EXTENSION SL-RLC-ChannelToAddModList PRESENCE optional }|

{ ID id-InterFrequencyConfig-NoGap CRITICALITY ignore EXTENSION InterFrequencyConfig-NoGap PRESENCE optional }|

{ ID id-UL-GapFR2-Config CRITICALITY ignore EXTENSION UL-GapFR2-Config PRESENCE optional }|

{ ID id-TwoPHRModeMCG CRITICALITY ignore EXTENSION TwoPHRModeMCG PRESENCE optional }|

{ ID id-TwoPHRModeSCG CRITICALITY ignore EXTENSION TwoPHRModeSCG PRESENCE optional }|

{ ID id-ncd-SSB-RedCapInitialBWP-SDT CRITICALITY ignore EXTENSION Ncd-SSB-RedCapInitialBWP-SDT PRESENCE optional }|

{ ID id-ServCellInfoList CRITICALITY ignore EXTENSION ServCellInfoList PRESENCE optional },

...

}

DuplicationActivation ::= ENUMERATED{active,inactive,... }

DuplicationIndication ::= ENUMERATED {true, ... , false }

DuplicationState ::= ENUMERATED {

active,

inactive,

...

}

Dynamic5QIDescriptor ::= SEQUENCE {

qoSPriorityLevel INTEGER (1..127),

packetDelayBudget PacketDelayBudget,

packetErrorRate PacketErrorRate,

fiveQI INTEGER (0..255, ...) OPTIONAL,

delayCritical ENUMERATED {delay-critical, non-delay-critical} OPTIONAL,

-- C-ifGBRflow: This IE shall be present if the GBR QoS Flow Information IE is present in the QoS Flow Level QoS Parameters IE.

averagingWindow AveragingWindow OPTIONAL,

-- C-ifGBRflow: This IE shall be present if the GBR QoS Flow Information IE is present in the QoS Flow Level QoS Parameters IE.

maxDataBurstVolume MaxDataBurstVolume OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Dynamic5QIDescriptor-ExtIEs } } OPTIONAL

}

Dynamic5QIDescriptor-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-ExtendedPacketDelayBudget CRITICALITY ignore EXTENSION ExtendedPacketDelayBudget PRESENCE optional }|

{ ID id-CNPacketDelayBudgetDownlink CRITICALITY ignore EXTENSION ExtendedPacketDelayBudget PRESENCE optional }|

{ ID id-CNPacketDelayBudgetUplink CRITICALITY ignore EXTENSION ExtendedPacketDelayBudget PRESENCE optional },

...

}

DynamicPQIDescriptor ::= SEQUENCE {

resourceType ENUMERATED {gbr, non-gbr, delay-critical-grb, ...} OPTIONAL,

qoSPriorityLevel INTEGER (1..8, ...),

packetDelayBudget PacketDelayBudget,

packetErrorRate PacketErrorRate,

averagingWindow AveragingWindow OPTIONAL,

-- C-ifGBRflow: This IE shall be present if the GBR QoS Flow Information IE is present in the QoS Flow Level QoS Parameters IE.

maxDataBurstVolume MaxDataBurstVolume OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DynamicPQIDescriptor-ExtIEs } } OPTIONAL

}

DynamicPQIDescriptor-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

-- E

E-CID-MeasurementQuantities ::= SEQUENCE (SIZE (1.. maxnoofMeasE-CID)) OF ProtocolIE-SingleContainer { {E-CID-MeasurementQuantities-ItemIEs} }

E-CID-MeasurementQuantities-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-E-CID-MeasurementQuantities-Item CRITICALITY reject TYPE E-CID-MeasurementQuantities-Item PRESENCE mandatory}

}

E-CID-MeasurementQuantities-Item ::= SEQUENCE {

e-CIDmeasurementQuantitiesValue E-CID-MeasurementQuantitiesValue,

iE-Extensions ProtocolExtensionContainer { { E-CID-MeasurementQuantitiesValue-ExtIEs} } OPTIONAL

}

E-CID-MeasurementQuantitiesValue-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

E-CID-MeasurementQuantitiesValue ::= ENUMERATED {

default,

angleOfArrivalNR,

... ,

timingAdvanceNR

}

E-CID-MeasurementResult ::= SEQUENCE {

geographicalCoordinates GeographicalCoordinates OPTIONAL,

measuredResults-List E-CID-MeasuredResults-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { E-CID-MeasurementResult-ExtIEs} } OPTIONAL

}

E-CID-MeasurementResult-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

E-CID-MeasuredResults-List ::= SEQUENCE (SIZE(1..maxnoofMeasE-CID)) OF E-CID-MeasuredResults-Item

E-CID-MeasuredResults-Item ::= SEQUENCE {

e-CID-MeasuredResults-Value E-CID-MeasuredResults-Value,

iE-Extensions ProtocolExtensionContainer {{ E-CID-MeasuredResults-Item-ExtIEs }} OPTIONAL

}

E-CID-MeasuredResults-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

E-CID-MeasuredResults-Value ::= CHOICE {

valueAngleofArrivalNR UL-AoA,

choice-extension ProtocolIE-SingleContainer { { E-CID-MeasuredResults-Value-ExtIEs} }

}

E-CID-MeasuredResults-Value-ExtIEs F1AP-PROTOCOL-IES ::= {

{ ID id-NR-TADV CRITICALITY ignore TYPE NR-TADV PRESENCE mandatory },

...

}

E-CID-ReportCharacteristics ::= ENUMERATED {

onDemand,

periodic,

...

}

EgressBHRLCCHList ::= SEQUENCE (SIZE(1..maxnoofEgressLinks)) OF EgressBHRLCCHItem

EgressBHRLCCHItem ::= SEQUENCE {

nextHopBAPAddress BAPAddress,

bHRLCChannelID BHRLCChannelID,

iE-Extensions ProtocolExtensionContainer {{EgressBHRLCCHItemExtIEs }} OPTIONAL

}

EgressBHRLCCHItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

EgressNonF1terminatingTopologyIndicator ::= ENUMERATED {true, ...}

Endpoint-IP-address-and-port ::=SEQUENCE {

endpointIPAddress TransportLayerAddress,

iE-Extensions ProtocolExtensionContainer { { Endpoint-IP-address-and-port-ExtIEs} } OPTIONAL

}

Endpoint-IP-address-and-port-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-portNumber CRITICALITY reject EXTENSION PortNumber PRESENCE optional},

...

}

EnergyDetectionThreshold ::= INTEGER (-100..-50, ...)

ExtendedAvailablePLMN-List ::= SEQUENCE (SIZE(1..maxnoofExtendedBPLMNs)) OF ExtendedAvailablePLMN-Item

ExtendedAvailablePLMN-Item ::= SEQUENCE {

pLMNIdentity PLMN-Identity,

iE-Extensions ProtocolExtensionContainer { { ExtendedAvailablePLMN-Item-ExtIEs} } OPTIONAL

}

ExplicitFormat ::= SEQUENCE {

permutation Permutation,

noofDownlinkSymbols NoofDownlinkSymbols OPTIONAL,

noofUplinkSymbols NoofUplinkSymbols OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { ExplicitFormat-ExtIEs} } OPTIONAL

}

ExplicitFormat-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

ExtendedAvailablePLMN-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

ExtendedServedPLMNs-List ::= SEQUENCE (SIZE(1.. maxnoofExtendedBPLMNs)) OF ExtendedServedPLMNs-Item

ExtendedServedPLMNs-Item ::= SEQUENCE {

pLMN-Identity PLMN-Identity,

tAISliceSupportList SliceSupportList OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { ExtendedServedPLMNs-ItemExtIEs} } OPTIONAL,

...

}

ExtendedServedPLMNs-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-NPNSupportInfo CRITICALITY reject EXTENSION NPNSupportInfo PRESENCE optional }|

{ ID id-ExtendedTAISliceSupportList CRITICALITY reject EXTENSION ExtendedSliceSupportList PRESENCE optional }|

{ ID id-TAINSAGSupportList CRITICALITY ignore EXTENSION NSAGSupportList PRESENCE optional},

...

}

ExtendedSliceSupportList ::= SEQUENCE (SIZE(1.. maxnoofExtSliceItems)) OF SliceSupportItem

ExtendedUEIdentityIndexValue ::= BIT STRING (SIZE(16))

EUTRACells-List ::= SEQUENCE (SIZE (1.. maxCellineNB)) OF EUTRACells-List-item

EUTRACells-List-item ::= SEQUENCE {

eUTRA-Cell-ID EUTRA-Cell-ID,

served-EUTRA-Cells-Information Served-EUTRA-Cells-Information,

iE-Extensions ProtocolExtensionContainer { { EUTRACells-List-itemExtIEs } } OPTIONAL

}

EUTRACells-List-itemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

EUTRA-Cell-ID ::= BIT STRING (SIZE(28))

EUTRA-Coex-FDD-Info ::= SEQUENCE {

uL-EARFCN ExtendedEARFCN OPTIONAL,

dL-EARFCN ExtendedEARFCN,

uL-Transmission-Bandwidth EUTRA-Transmission-Bandwidth OPTIONAL,

dL-Transmission-Bandwidth EUTRA-Transmission-Bandwidth,

iE-Extensions ProtocolExtensionContainer { {EUTRA-Coex-FDD-Info-ExtIEs} } OPTIONAL,

...

}

EUTRA-Coex-FDD-Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

EUTRA-Coex-Mode-Info ::= CHOICE {

fDD EUTRA-Coex-FDD-Info,

tDD EUTRA-Coex-TDD-Info,

...

}

EUTRA-Coex-TDD-Info ::= SEQUENCE {

eARFCN ExtendedEARFCN,

transmission-Bandwidth EUTRA-Transmission-Bandwidth,

subframeAssignment EUTRA-SubframeAssignment,

specialSubframe-Info EUTRA-SpecialSubframe-Info,

iE-Extensions ProtocolExtensionContainer { {EUTRA-Coex-TDD-Info-ExtIEs} } OPTIONAL,

...

}

EUTRA-Coex-TDD-Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

EUTRA-CyclicPrefixDL ::= ENUMERATED {

normal,

extended,

...

}

EUTRA-CyclicPrefixUL ::= ENUMERATED {

normal,

extended,

...

}

EUTRA-PRACH-Configuration ::= SEQUENCE {

rootSequenceIndex INTEGER (0..837),

zeroCorrelationIndex INTEGER (0..15),

highSpeedFlag BOOLEAN,

prach-FreqOffset INTEGER (0..94),

prach-ConfigIndex INTEGER (0..63) OPTIONAL,

-- C-ifTDD: This IE shall be present if the EUTRA-Mode-Info IE in the Resource Coordination E-UTRA Cell Information IE is set to the value "TDD"

iE-Extensions ProtocolExtensionContainer { {EUTRA-PRACH-Configuration-ExtIEs} } OPTIONAL,

...

}

EUTRA-PRACH-Configuration-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

EUTRA-SpecialSubframe-Info ::= SEQUENCE {

specialSubframePatterns EUTRA-SpecialSubframePatterns,

cyclicPrefixDL EUTRA-CyclicPrefixDL,

cyclicPrefixUL EUTRA-CyclicPrefixUL,

iE-Extensions ProtocolExtensionContainer { { EUTRA-SpecialSubframe-Info-ExtIEs} } OPTIONAL,

...

}

EUTRA-SpecialSubframe-Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

EUTRA-SpecialSubframePatterns ::= ENUMERATED {

ssp0,

ssp1,

ssp2,

ssp3,

ssp4,

ssp5,

ssp6,

ssp7,

ssp8,

ssp9,

ssp10,

...

}

EUTRA-SubframeAssignment ::= ENUMERATED {

sa0,

sa1,

sa2,

sa3,

sa4,

sa5,

sa6,

...

}

EUTRA-Transmission-Bandwidth ::= ENUMERATED {

bw6,

bw15,

bw25,

bw50,

bw75,

bw100,

...

}

EUTRANQoS ::= SEQUENCE {

qCI QCI,

allocationAndRetentionPriority AllocationAndRetentionPriority,

gbrQosInformation GBR-QosInformation OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { EUTRANQoS-ExtIEs} } OPTIONAL,

...

}

EUTRANQoS-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-ENBDLTNLAddress CRITICALITY ignore EXTENSION TransportLayerAddress PRESENCE optional },

...

}

ExecuteDuplication ::= ENUMERATED{true,...}

ExtendedEARFCN ::= INTEGER (0..262143)

EUTRA-Mode-Info ::= CHOICE {

eUTRAFDD EUTRA-FDD-Info,

eUTRATDD EUTRA-TDD-Info,

choice-extension ProtocolIE-SingleContainer { { EUTRA-Mode-Info-ExtIEs} }

}

EUTRA-Mode-Info-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

EUTRA-NR-CellResourceCoordinationReq-Container ::= OCTET STRING

EUTRA-NR-CellResourceCoordinationReqAck-Container ::= OCTET STRING

EUTRA-FDD-Info ::= SEQUENCE {

uL-offsetToPointA OffsetToPointA,

dL-offsetToPointA OffsetToPointA,

iE-Extensions ProtocolExtensionContainer { {EUTRA-FDD-Info-ExtIEs} } OPTIONAL,

...

}

EUTRA-FDD-Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

EUTRA-TDD-Info ::= SEQUENCE {

offsetToPointA OffsetToPointA,

iE-Extensions ProtocolExtensionContainer { {EUTRA-TDD-Info-ExtIEs} } OPTIONAL,

...

}

EUTRA-TDD-Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

EventType ::= ENUMERATED {

on-demand,

periodic,

stop,

...

}

ExtendedPacketDelayBudget ::= INTEGER (1..65535, ..., 65536..109999)

Expected-UL-AoA ::= SEQUENCE {

expected-Azimuth-AoA Expected-Azimuth-AoA,

expected-Zenith-AoA Expected-Zenith-AoA OPTIONAL,

iE-extensions ProtocolExtensionContainer { { Expected-UL-AoA-ExtIEs } } OPTIONAL,

...

}

Expected-UL-AoA-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Expected-ZoA-only ::= SEQUENCE {

expected-ZoA-only Expected-Zenith-AoA,

iE-extensions ProtocolExtensionContainer { { Expected-ZoA-only-ExtIEs } } OPTIONAL,

...

}

Expected-ZoA-only-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Expected-Azimuth-AoA ::= SEQUENCE {

expected-Azimuth-AoA-value Expected-Value-AoA,

expected-Azimuth-AoA-uncertainty Uncertainty-range-AoA,

iE-Extensions ProtocolExtensionContainer { { Expected-Azimuth-AoA-ExtIEs } } OPTIONAL,

...

}

Expected-Azimuth-AoA-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Expected-Zenith-AoA ::= SEQUENCE {

expected-Zenith-AoA-value Expected-Value-ZoA,

expected-Zenith-AoA-uncertainty Uncertainty-range-ZoA,

iE-Extensions ProtocolExtensionContainer { { Expected-Zenith-AoA-ExtIEs } } OPTIONAL,

...

}

Expected-Zenith-AoA-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Expected-Value-AoA ::= INTEGER (0..3599)

Expected-Value-ZoA ::= INTEGER (0..1799)

-- F

F1CPathNSA ::= ENUMERATED {lte, nr, both}

F1CTransferPath ::= SEQUENCE {

f1CPathNSA F1CPathNSA,

iE-Extensions ProtocolExtensionContainer { { F1CTransferPath-ExtIEs} } OPTIONAL,

...

}

F1CTransferPath-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

F1CPathNRDC ::= ENUMERATED {mcg, scg, both}

F1CTransferPathNRDC ::= SEQUENCE {

f1CPathNRDC F1CPathNRDC,

iE-Extensions ProtocolExtensionContainer { { F1CTransferPathNRDC-ExtIEs} } OPTIONAL,

...

}

F1CTransferPathNRDC-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

FDD-Info ::= SEQUENCE {

uL-NRFreqInfo NRFreqInfo,

dL-NRFreqInfo NRFreqInfo,

uL-Transmission-Bandwidth Transmission-Bandwidth,

dL-Transmission-Bandwidth Transmission-Bandwidth,

iE-Extensions ProtocolExtensionContainer { {FDD-Info-ExtIEs} } OPTIONAL,

...

}

FDD-Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-ULCarrierList CRITICALITY ignore EXTENSION NRCarrierList PRESENCE optional }|

{ ID id-DLCarrierList CRITICALITY ignore EXTENSION NRCarrierList PRESENCE optional },

...

}

FDD-InfoRel16 ::= SEQUENCE {

uL-FreqInfo FreqInfoRel16 OPTIONAL,

sUL-FreqInfo FreqInfoRel16 OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {FDD-InfoRel16-ExtIEs} } OPTIONAL,

...

}

FDD-InfoRel16-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

FiveG-ProSeAuthorized ::= SEQUENCE {

fiveG-proSeDirectDiscovery FiveG-ProSeDirectDiscovery OPTIONAL,

fiveG-proSeDirectCommunication FiveG-ProSeDirectCommunication OPTIONAL,

fiveG-ProSeLayer2UEtoNetworkRelay FiveG-ProSeLayer2UEtoNetworkRelay OPTIONAL,

fiveG-ProSeLayer3UEtoNetworkRelay FiveG-ProSeLayer3UEtoNetworkRelay OPTIONAL,

fiveG-ProSeLayer2RemoteUE FiveG-ProSeLayer2RemoteUE OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {FiveG-ProSeAuthorized-ExtIEs} } OPTIONAL,

...

}

FiveG-ProSeAuthorized-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-FiveG-ProSeLayer2Multipath CRITICALITY ignore EXTENSION FiveG-ProSeLayer2Multipath PRESENCE optional }|

{ ID id-FiveG-ProSeLayer2UEtoUERelay CRITICALITY ignore EXTENSION FiveG-ProSeLayer2UEtoUERelay PRESENCE optional }|

{ ID id-FiveG-ProSeLayer2UEtoUERemote CRITICALITY ignore EXTENSION FiveG-ProSeLayer2UEtoUERemote PRESENCE optional },

...

}

FiveG-ProSeDirectDiscovery ::= ENUMERATED {

authorized,

not-authorized,

...

}

FiveG-ProSeDirectCommunication ::= ENUMERATED {

authorized,

not-authorized,

...

}

FiveG-ProSeLayer2UEtoNetworkRelay ::= ENUMERATED {

authorized,

not-authorized,

...

}

FiveG-ProSeLayer3UEtoNetworkRelay ::= ENUMERATED {

authorized,

not-authorized,

...

}

FiveG-ProSeLayer2RemoteUE ::= ENUMERATED {

authorized,

not-authorized,

...

}

FiveG-ProSeLayer2Multipath ::= ENUMERATED {

authorized,

not-authorized,

...

}

FiveG-ProSeLayer2UEtoUERelay ::= ENUMERATED {

authorized,

not-authorized,

...

}

FiveG-ProSeLayer2UEtoUERemote ::= ENUMERATED {

authorized,

not-authorized,

...

}

Flows-Mapped-To-DRB-List ::= SEQUENCE (SIZE(1.. maxnoofQoSFlows)) OF Flows-Mapped-To-DRB-Item

Flows-Mapped-To-DRB-Item ::= SEQUENCE {

qoSFlowIdentifier QoSFlowIdentifier,

qoSFlowLevelQoSParameters QoSFlowLevelQoSParameters,

iE-Extensions ProtocolExtensionContainer { { Flows-Mapped-To-DRB-ItemExtIEs} } OPTIONAL

}

Flows-Mapped-To-DRB-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ID id-QoSFlowMappingIndication CRITICALITY ignore EXTENSION QoSFlowMappingIndication PRESENCE optional}|

{ID id-TSCTrafficCharacteristics CRITICALITY ignore EXTENSION TSCTrafficCharacteristics PRESENCE optional},

...

}

FR1-Bandwidth ::= ENUMERATED {bw5, bw10, bw20, bw40, bw50, bw80, bw100, ...}

FR2-Bandwidth ::= ENUMERATED {bw50, bw100, bw200, bw400, ..., bw800, bw1600, bw2000}

FreqBandNrItem ::= SEQUENCE {

freqBandIndicatorNr INTEGER (1..1024,...),

supportedSULBandList SEQUENCE (SIZE(0..maxnoofNrCellBands)) OF SupportedSULFreqBandItem,

iE-Extensions ProtocolExtensionContainer { {FreqBandNrItem-ExtIEs} } OPTIONAL,

...

}

FreqBandNrItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

FreqDomainLength ::= CHOICE {

l839 L839Info,

l139 L139Info,

choice-extension ProtocolIE-SingleContainer { {FreqDomainLength-ExtIEs} }

}

FreqDomainLength-ExtIEs F1AP-PROTOCOL-IES ::= {

{ ID id-L571Info CRITICALITY reject TYPE L571Info PRESENCE mandatory}|

{ ID id-L1151Info CRITICALITY reject TYPE L1151Info PRESENCE mandatory},

...

}

FreqInfoRel16 ::= SEQUENCE {

nRARFCN INTEGER (0..maxNRARFCN) OPTIONAL,

frequencyShift7p5khz FrequencyShift7p5khz OPTIONAL,

carrierList NRCarrierList OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { FreqInfoRel16-ExtIEs} } OPTIONAL,

...

}

FreqInfoRel16-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

FrequencyShift7p5khz ::= ENUMERATED {false, true, ...}

Frequency-Domain-HSNA-Configuration-List ::= SEQUENCE (SIZE(1..maxnoofRBsetsPerCell)) OF Frequency-Domain-HSNA-Configuration-Item

Frequency-Domain-HSNA-Configuration-Item::= SEQUENCE {

rBSetIndex INTEGER (0..maxnoofRBsetsPerCell-1, ...),

frequency-Domain-HSNA-Slot-Configuration-List Frequency-Domain-HSNA-Slot-Configuration-List,

iE-Extensions ProtocolExtensionContainer { { Frequency-Domain-HSNA-Configuration-Item-ExtIEs} } OPTIONAL

}

Frequency-Domain-HSNA-Configuration-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Frequency-Domain-HSNA-Slot-Configuration-List ::= SEQUENCE (SIZE(1..maxnoofHSNASlots)) OF Frequency-Domain-HSNA-Slot-Configuration-Item

Frequency-Domain-HSNA-Slot-Configuration-Item::= SEQUENCE {

slotIndex INTEGER (0..5119) OPTIONAL,

hSNADownlink HSNADownlink OPTIONAL,

hSNAUplink HSNAUplink OPTIONAL,

hSNAFlexible HSNAFlexible OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Frequency-Domain-HSNA-Slot-Configuration-Item-ExtIEs } } OPTIONAL

}

Frequency-Domain-HSNA-Slot-Configuration-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

FullConfiguration ::= ENUMERATED {full, ...}

FlowsMappedToSLDRB-List ::= SEQUENCE (SIZE(1.. maxnoofPC5QoSFlows)) OF FlowsMappedToSLDRB-Item

FlowsMappedToSLDRB-Item ::= SEQUENCE {

pc5QoSFlowIdentifier PC5QoSFlowIdentifier,

iE-Extensions ProtocolExtensionContainer { {FlowsMappedToSLDRB-Item-ExtIEs} } OPTIONAL,

...

}

FlowsMappedToSLDRB-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

-- G

GBR-QosInformation ::= SEQUENCE {

e-RAB-MaximumBitrateDL BitRate,

e-RAB-MaximumBitrateUL BitRate,

e-RAB-GuaranteedBitrateDL BitRate,

e-RAB-GuaranteedBitrateUL BitRate,

iE-Extensions ProtocolExtensionContainer { { GBR-QosInformation-ExtIEs} } OPTIONAL,

...

}

GBR-QosInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

GBR-QoSFlowInformation::= SEQUENCE {

maxFlowBitRateDownlink BitRate,

maxFlowBitRateUplink BitRate,

guaranteedFlowBitRateDownlink BitRate,

guaranteedFlowBitRateUplink BitRate,

maxPacketLossRateDownlink MaxPacketLossRate OPTIONAL,

maxPacketLossRateUplink MaxPacketLossRate OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { GBR-QosFlowInformation-ExtIEs} } OPTIONAL,

...

}

GBR-QosFlowInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-AlternativeQoSParaSetList CRITICALITY ignore EXTENSION AlternativeQoSParaSetList PRESENCE optional },

...

}

CG-Config ::= OCTET STRING

GeographicalCoordinates ::= SEQUENCE {

tRPPositionDefinitionType TRPPositionDefinitionType,

dLPRSResourceCoordinates DLPRSResourceCoordinates OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { GeographicalCoordinates-ExtIEs } } OPTIONAL

}

GeographicalCoordinates-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-ARPLocationInfo CRITICALITY ignore EXTENSION ARPLocationInformation PRESENCE optional},

...

}

GNB-CU-MBS-F1AP-ID ::= INTEGER (0..4294967295)

GNBCUMeasurementID ::= INTEGER (0.. 4095, ...)

GNBDUMeasurementID ::= INTEGER (0.. 4095, ...)

GNB-CUSystemInformation::= SEQUENCE {

sibtypetobeupdatedlist SEQUENCE (SIZE(1.. maxnoofSIBTypes)) OF SibtypetobeupdatedListItem,

iE-Extensions ProtocolExtensionContainer { { GNB-CUSystemInformation-ExtIEs} } OPTIONAL,

...

}

GNB-CUSystemInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ID id-systemInformationAreaID CRITICALITY ignore EXTENSION SystemInformationAreaID PRESENCE optional},

...

}

GNB-CU-TNL-Association-Setup-Item::= SEQUENCE {

tNLAssociationTransportLayerAddress CP-TransportLayerAddress ,

iE-Extensions ProtocolExtensionContainer { { GNB-CU-TNL-Association-Setup-Item-ExtIEs} } OPTIONAL

}

GNB-CU-TNL-Association-Setup-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

GNB-CU-TNL-Association-Failed-To-Setup-Item ::= SEQUENCE {

tNLAssociationTransportLayerAddress CP-TransportLayerAddress ,

cause Cause,

iE-Extensions ProtocolExtensionContainer { { GNB-CU-TNL-Association-Failed-To-Setup-Item-ExtIEs} } OPTIONAL

}

GNB-CU-TNL-Association-Failed-To-Setup-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

GNB-CU-TNL-Association-To-Add-Item ::= SEQUENCE {

tNLAssociationTransportLayerAddress CP-TransportLayerAddress ,

tNLAssociationUsage TNLAssociationUsage,

iE-Extensions ProtocolExtensionContainer { { GNB-CU-TNL-Association-To-Add-Item-ExtIEs} } OPTIONAL

}

GNB-CU-TNL-Association-To-Add-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

GNB-CU-TNL-Association-To-Remove-Item::= SEQUENCE {

tNLAssociationTransportLayerAddress CP-TransportLayerAddress ,

iE-Extensions ProtocolExtensionContainer { { GNB-CU-TNL-Association-To-Remove-Item-ExtIEs} } OPTIONAL

}

GNB-CU-TNL-Association-To-Remove-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ID id-TNLAssociationTransportLayerAddressgNBDU CRITICALITY reject EXTENSION CP-TransportLayerAddress PRESENCE optional},

...

}

GNB-CU-TNL-Association-To-Update-Item::= SEQUENCE {

tNLAssociationTransportLayerAddress CP-TransportLayerAddress ,

tNLAssociationUsage TNLAssociationUsage OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { GNB-CU-TNL-Association-To-Update-Item-ExtIEs} } OPTIONAL

}

GNB-CU-TNL-Association-To-Update-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

GNB-CU-UE-F1AP-ID ::= INTEGER (0..4294967295)

GNB-DU-Cell-Resource-Configuration ::= SEQUENCE {

subcarrierSpacing SubcarrierSpacing,

dUFTransmissionPeriodicity DUFTransmissionPeriodicity OPTIONAL,

dUF-Slot-Config-List DUF-Slot-Config-List OPTIONAL,

hSNATransmissionPeriodicity HSNATransmissionPeriodicity,

hsNSASlotConfigList HSNASlotConfigList OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { GNB-DU-Cell-Resource-Configuration-ExtIEs } } OPTIONAL

}

GNB-DU-Cell-Resource-Configuration-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ID id-rBSetConfiguration CRITICALITY reject EXTENSION RBSetConfiguration PRESENCE optional}|

{ID id-frequency-Domain-HSNA-Configuration-List CRITICALITY reject EXTENSION Frequency-Domain-HSNA-Configuration-List PRESENCE optional}|

{ID id-child-IAB-Nodes-NA-Resource-List CRITICALITY reject EXTENSION Child-IAB-Nodes-NA-Resource-List PRESENCE optional}|

{ID id-Parent-IAB-Nodes-NA-Resource-Configuration-List CRITICALITY reject EXTENSION Parent-IAB-Nodes-NA-Resource-Configuration-List PRESENCE optional},

...

}

GNB-DU-MBS-F1AP-ID ::= INTEGER (0..4294967295)

GNB-DU-UE-F1AP-ID ::= INTEGER (0..4294967295)

GNB-DU-ID ::= INTEGER (0..68719476735)

GNB-CU-Name ::= PrintableString(SIZE(1..150,...))

GNB-DU-Name ::= PrintableString(SIZE(1..150,...))

Extended-GNB-CU-Name ::= SEQUENCE {

gNB-CU-NameVisibleString GNB-CU-NameVisibleString OPTIONAL,

gNB-CU-NameUTF8String GNB-CU-NameUTF8String OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Extended-GNB-CU-Name-ExtIEs } } OPTIONAL,

...

}

Extended-GNB-CU-Name-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

GNB-CU-NameVisibleString ::= VisibleString(SIZE(1..150,...))

GNB-CU-NameUTF8String ::= UTF8String(SIZE(1..150,...))

Extended-GNB-DU-Name ::= SEQUENCE {

gNB-DU-NameVisibleString GNB-DU-NameVisibleString OPTIONAL,

gNB-DU-NameUTF8String GNB-DU-NameUTF8String OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Extended-GNB-DU-Name-ExtIEs } } OPTIONAL,

...

}

Extended-GNB-DU-Name-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

GNB-DU-NameVisibleString ::= VisibleString(SIZE(1..150,...))

GNB-DU-NameUTF8String ::= UTF8String(SIZE(1..150,...))

GNB-DU-Served-Cells-Item ::= SEQUENCE {

served-Cell-Information Served-Cell-Information,

gNB-DU-System-Information GNB-DU-System-Information OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { GNB-DU-Served-Cells-ItemExtIEs} } OPTIONAL,

...

}

GNB-DU-Served-Cells-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

GNB-DU-System-Information ::= SEQUENCE {

mIB-message MIB-message,

sIB1-message SIB1-message,

iE-Extensions ProtocolExtensionContainer { { GNB-DU-System-Information-ExtIEs } } OPTIONAL,

...

}

GNB-DU-System-Information-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-SIB12-message CRITICALITY ignore EXTENSION SIB12-message PRESENCE optional}|

{ ID id-SIB13-message CRITICALITY ignore EXTENSION SIB13-message PRESENCE optional}|

{ ID id-SIB14-message CRITICALITY ignore EXTENSION SIB14-message PRESENCE optional}|

{ ID id-SIB10-message CRITICALITY ignore EXTENSION SIB10-message PRESENCE optional}|

{ ID id-SIB17-message CRITICALITY ignore EXTENSION SIB17-message PRESENCE optional}|

{ ID id-SIB20-message CRITICALITY ignore EXTENSION SIB20-message PRESENCE optional}|

{ ID id-SIB15-message CRITICALITY ignore EXTENSION SIB15-message PRESENCE optional},

...

}

GNB-DUConfigurationQuery ::= ENUMERATED {true, ...}

GNBDUOverloadInformation ::= ENUMERATED {overloaded, not-overloaded}

GNB-DU-TNL-Association-To-Remove-Item::= SEQUENCE {

tNLAssociationTransportLayerAddress CP-TransportLayerAddress ,

tNLAssociationTransportLayerAddressgNBCU CP-TransportLayerAddress OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { GNB-DU-TNL-Association-To-Remove-Item-ExtIEs} } OPTIONAL

}

GNB-DU-TNL-Association-To-Remove-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

GNBDUUESliceMaximumBitRateList::= SEQUENCE (SIZE(1.. maxnoofSMBRValues)) OF GNBDUUESliceMaximumBitRateItem

GNBDUUESliceMaximumBitRateItem::= SEQUENCE {

sNSSAI SNSSAI,

uESliceMaximumBitRateUL BitRate,

iE-Extensions ProtocolExtensionContainer { { GNBDUUESliceMaximumBitRateItem-ExtIEs} } OPTIONAL,

...

}

GNBDUUESliceMaximumBitRateItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

GNB-RxTxTimeDiff ::= SEQUENCE {

rxTxTimeDiff GNBRxTxTimeDiffMeas,

additionalPath-List AdditionalPath-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { GNB-RxTxTimeDiff-ExtIEs} } OPTIONAL

}

GNB-RxTxTimeDiff-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-ExtendedAdditionalPathList CRITICALITY ignore EXTENSION ExtendedAdditionalPathList PRESENCE optional}|

{ ID id-TRPTEGInformation CRITICALITY ignore EXTENSION TRPTEGInformation PRESENCE optional },

...

}

GNBRxTxTimeDiffMeas ::= CHOICE {

k0 INTEGER (0.. 1970049),

k1 INTEGER (0.. 985025),

k2 INTEGER (0.. 492513),

k3 INTEGER (0.. 246257),

k4 INTEGER (0.. 123129),

k5 INTEGER (0.. 61565),

choice-extension ProtocolIE-SingleContainer { { GNBRxTxTimeDiffMeas-ExtIEs } }

}

GNBRxTxTimeDiffMeas-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

GNBSetID ::= BIT STRING (SIZE(22))

GTP-TEID ::= OCTET STRING (SIZE (4))

GTPTLAs ::= SEQUENCE (SIZE(1.. maxnoofGTPTLAs)) OF GTPTLA-Item

GTPTLA-Item ::= SEQUENCE {

gTPTransportLayerAddress TransportLayerAddress,

iE-Extensions ProtocolExtensionContainer { { GTPTLA-Item-ExtIEs } } OPTIONAL

}

GTPTLA-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

GTPTunnel ::= SEQUENCE {

transportLayerAddress TransportLayerAddress,

gTP-TEID GTP-TEID,

iE-Extensions ProtocolExtensionContainer { { GTPTunnel-ExtIEs } } OPTIONAL,

...

}

GTPTunnel-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

-- H

HandoverPreparationInformation ::= OCTET STRING

HardwareLoadIndicator ::= SEQUENCE {

dLHardwareLoadIndicator INTEGER (0..100, ...),

uLHardwareLoadIndicator INTEGER (0..100, ...),

iE-Extensions ProtocolExtensionContainer { { HardwareLoadIndicator-ExtIEs } } OPTIONAL,

...

}

HardwareLoadIndicator-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

HSNASlotConfigList ::= SEQUENCE (SIZE(1..maxnoofHSNASlots)) OF HSNASlotConfigItem

HSNASlotConfigItem ::= SEQUENCE {

hSNADownlink HSNADownlink OPTIONAL,

hSNAUplink HSNAUplink OPTIONAL,

hSNAFlexible HSNAFlexible OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { HSNASlotConfigItem-ExtIEs } } OPTIONAL

}

HSNASlotConfigItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

HSNADownlink ::= ENUMERATED { hard, soft, notavailable }

HSNAFlexible ::= ENUMERATED { hard, soft, notavailable }

HSNAUplink ::= ENUMERATED { hard, soft, notavailable }

HSNATransmissionPeriodicity ::= ENUMERATED { ms0p5, ms0p625, ms1, ms1p25, ms2, ms2p5, ms5, ms10, ms20, ms40, ms80, ms160, ...}

HashedUEIdentityIndexValue ::= BIT STRING (SIZE(13, ...))

-- I

IAB-Barred ::= ENUMERATED {barred, not-barred, ...}

IABConditionalRRCMessageDeliveryIndication ::= ENUMERATED {true, ...}

IABCongestionIndication ::= SEQUENCE {

iAB-Congestion-Indication-List IAB-Congestion-Indication-List,

iE-Extensions ProtocolExtensionContainer { { IAB-Congestion-Indication-List-ExtIEs } } OPTIONAL

}

IAB-Congestion-Indication-List-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

IAB-Congestion-Indication-List ::= SEQUENCE (SIZE(1..maxnoofIABCongInd)) OF IAB-Congestion-Indication-Item

IAB-Congestion-Indication-Item ::= SEQUENCE {

childNodeIdentifier BAPAddress,

bHRLCCHList BHRLCCHList OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { IAB-Congestion-Indication-ItemExtIEs } } OPTIONAL

}

IAB-Congestion-Indication-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

IAB-Info-IAB-donor-CU ::= SEQUENCE{

iAB-STC-Info IAB-STC-Info OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { IAB-Info-IAB-donor-CU-ExtIEs } } OPTIONAL

}

IAB-Info-IAB-donor-CU-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

IAB-Info-IAB-DU ::= SEQUENCE{

multiplexingInfo MultiplexingInfo OPTIONAL,

iAB-STC-Info IAB-STC-Info OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { IAB-Info-IAB-DU-ExtIEs } } OPTIONAL

}

IAB-Info-IAB-DU-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

IAB-MT-Cell-List ::= SEQUENCE (SIZE(1..maxnoofServingCells)) OF IAB-MT-Cell-List-Item

IAB-MT-Cell-List-Item ::= SEQUENCE {

nRCellIdentity NRCellIdentity,

dU-RX-MT-RX DU-RX-MT-RX,

dU-TX-MT-TX DU-TX-MT-TX,

dU-RX-MT-TX DU-RX-MT-TX,

dU-TX-MT-RX DU-TX-MT-RX,

iE-Extensions ProtocolExtensionContainer { { IAB-MT-Cell-List-Item-ExtIEs } } OPTIONAL

}

IAB-MT-Cell-List-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-DU-RX-MT-RX-Extend CRITICALITY ignore EXTENSION DU-RX-MT-RX-Extend PRESENCE optional }|

{ ID id-DU-TX-MT-TX-Extend CRITICALITY ignore EXTENSION DU-TX-MT-TX-Extend PRESENCE optional }|

{ ID id-DU-RX-MT-TX-Extend CRITICALITY ignore EXTENSION DU-RX-MT-TX-Extend PRESENCE optional }|

{ ID id-DU-TX-MT-RX-Extend CRITICALITY ignore EXTENSION DU-TX-MT-RX-Extend PRESENCE optional },

...

}

IAB-MT-Cell-NA-Resource-Configuration-Mode-Info ::= CHOICE {

fDD IAB-MT-Cell-NA-Resource-Configuration-FDD-Info,

tDD IAB-MT-Cell-NA-Resource-Configuration-TDD-Info,

choice-extension ProtocolIE-SingleContainer { { IAB-MT-Cell-NA-Resource-Configuration-Mode-Info-ExtIEs} }

}

IAB-MT-Cell-NA-Resource-Configuration-Mode-Info-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

IAB-MT-Cell-NA-Resource-Configuration-FDD-Info ::= SEQUENCE {

gNB-DU-Cell-NA-Resource-Configuration-FDD-UL GNB-DU-Cell-Resource-Configuration,

gNB-DU-Cell-NA-Resource-Configuration-FDD-DL GNB-DU-Cell-Resource-Configuration,

uL-FreqInfo NRFreqInfo OPTIONAL,

uL-Transmission-Bandwidth Transmission-Bandwidth OPTIONAL,

uL-NR-Carrier-List NRCarrierList OPTIONAL,

dL-FreqInfo NRFreqInfo OPTIONAL,

dL-Transmission-Bandwidth Transmission-Bandwidth OPTIONAL,

dL-NR-Carrier-List NRCarrierList OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {IAB-MT-Cell-NA-Resource-Configuration-FDD-Info-ExtIEs} } OPTIONAL,

...

}

IAB-MT-Cell-NA-Resource-Configuration-FDD-Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

IAB-MT-Cell-NA-Resource-Configuration-TDD-Info ::= SEQUENCE {

gNB-DU-Cell-NA-Resourc-Configuration-TDD GNB-DU-Cell-Resource-Configuration,

nRFreqInfo NRFreqInfo OPTIONAL,

transmission-Bandwidth Transmission-Bandwidth OPTIONAL,

nR-Carrier-List NRCarrierList OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {IAB-MT-Cell-NA-Resource-Configuration-TDD-Info-ExtIEs} } OPTIONAL,

...

}

IAB-MT-Cell-NA-Resource-Configuration-TDD-Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

IAB-STC-Info ::= SEQUENCE{

iAB-STC-Info-List IAB-STC-Info-List,

iE-Extensions ProtocolExtensionContainer { { IAB-STC-Info-ExtIEs } } OPTIONAL

}

IAB-STC-Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

IAB-STC-Info-List ::= SEQUENCE (SIZE(1..maxnoofIABSTCInfo)) OF IAB-STC-Info-Item

IAB-STC-Info-Item::= SEQUENCE {

sSB-freqInfo SSB-freqInfo,

sSB-subcarrierSpacing SSB-subcarrierSpacing,

sSB-transmissionPeriodicity SSB-transmissionPeriodicity,

sSB-transmissionTimingOffset SSB-transmissionTimingOffset,

sSB-transmissionBitmap SSB-transmissionBitmap,

iE-Extensions ProtocolExtensionContainer { { IAB-STC-Info-Item-ExtIEs } } OPTIONAL

}

IAB-STC-Info-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

IAB-Allocated-TNL-Address-Item ::= SEQUENCE {

iABTNLAddress IABTNLAddress,

iABTNLAddressUsage IABTNLAddressUsage OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { IAB-Allocated-TNL-Address-Item-ExtIEs } } OPTIONAL

}

IAB-Allocated-TNL-Address-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

IAB-DU-Cell-Resource-Configuration-Mode-Info ::= CHOICE {

fDD IAB-DU-Cell-Resource-Configuration-FDD-Info,

tDD IAB-DU-Cell-Resource-Configuration-TDD-Info,

choice-extension ProtocolIE-SingleContainer { { IAB-DU-Cell-Resource-Configuration-Mode-Info-ExtIEs} }

}

IAB-DU-Cell-Resource-Configuration-Mode-Info-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

IAB-DU-Cell-Resource-Configuration-FDD-Info ::= SEQUENCE {

gNB-DU-Cell-Resource-Configuration-FDD-UL GNB-DU-Cell-Resource-Configuration,

gNB-DU-Cell-Resource-Configuration-FDD-DL GNB-DU-Cell-Resource-Configuration,

iE-Extensions ProtocolExtensionContainer { {IAB-DU-Cell-Resource-Configuration-FDD-Info-ExtIEs} } OPTIONAL,

...

}

IAB-DU-Cell-Resource-Configuration-FDD-Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ID id-uL-FreqInfo CRITICALITY reject EXTENSION NRFreqInfo PRESENCE optional}|

{ID id-uL-Transmission-Bandwidth CRITICALITY reject EXTENSION Transmission-Bandwidth PRESENCE optional}|

{ID id-uL-NR-Carrier-List CRITICALITY reject EXTENSION NRCarrierList PRESENCE optional}|

{ID id-dL-FreqInfo CRITICALITY reject EXTENSION NRFreqInfo PRESENCE optional}|

{ID id-dL-Transmission-Bandwidth CRITICALITY reject EXTENSION Transmission-Bandwidth PRESENCE optional}|

{ID id-dL-NR-Carrier-List CRITICALITY reject EXTENSION NRCarrierList PRESENCE optional},

...

}

IAB-DU-Cell-Resource-Configuration-TDD-Info ::= SEQUENCE {

gNB-DU-Cell-Resourc-Configuration-TDD GNB-DU-Cell-Resource-Configuration,

iE-Extensions ProtocolExtensionContainer { {IAB-DU-Cell-Resource-Configuration-TDD-Info-ExtIEs} } OPTIONAL,

...

}

IAB-DU-Cell-Resource-Configuration-TDD-Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ID id-nRFreqInfo CRITICALITY reject EXTENSION NRFreqInfo PRESENCE optional}|

{ID id-transmission-Bandwidth CRITICALITY reject EXTENSION Transmission-Bandwidth PRESENCE optional}|

{ID id-nR-Carrier-List CRITICALITY reject EXTENSION NRCarrierList PRESENCE optional},

...

}

IABIPv6RequestType ::= CHOICE {

iPv6Address IABTNLAddressesRequested,

iPv6Prefix IABTNLAddressesRequested,

choice-extension ProtocolIE-SingleContainer { { IABIPv6RequestType-ExtIEs} }

}

IABIPv6RequestType-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

IABTNLAddress ::= CHOICE {

iPv4Address BIT STRING (SIZE(32)),

iPv6Address BIT STRING (SIZE(128)),

iPv6Prefix BIT STRING (SIZE(64)),

choice-extension ProtocolIE-SingleContainer { { IABTNLAddress-ExtIEs} }

}

IABTNLAddress-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

IABTNLAddressesRequested ::= SEQUENCE {

tNLAddressesOrPrefixesRequestedAllTraffic INTEGER (1..256) OPTIONAL,

tNLAddressesOrPrefixesRequestedF1-C INTEGER (1..256) OPTIONAL,

tNLAddressesOrPrefixesRequestedF1-U INTEGER (1..256) OPTIONAL,

tNLAddressesOrPrefixesRequestedNoNF1 INTEGER (1..256) OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { IABTNLAddressesRequested-ExtIEs } } OPTIONAL

}

IABTNLAddressesRequested-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

IAB-TNL-Addresses-To-Remove-Item ::= SEQUENCE {

iABTNLAddress IABTNLAddress,

iE-Extensions ProtocolExtensionContainer { { IAB-TNL-Addresses-To-Remove-Item-ExtIEs} } OPTIONAL

}

IAB-TNL-Addresses-To-Remove-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

IAB-TNL-Addresses-Exception ::= SEQUENCE {

iABTNLAddressList IABTNLAddressList,

iE-Extensions ProtocolExtensionContainer { { IAB-TNL-Addresses-Exception-ExtIEs} } OPTIONAL

}

IAB-TNL-Addresses-Exception-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

IABTNLAddressList ::= SEQUENCE (SIZE(1.. maxnoofTLAsIAB)) OF IABTNLAddress-Item

IABTNLAddress-Item ::= SEQUENCE {

iABTNLAddress IABTNLAddress ,

iE-Extensions ProtocolExtensionContainer { { IABTNLAddress-ItemExtIEs } } OPTIONAL

}

IABTNLAddress-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

IABTNLAddressUsage ::= ENUMERATED {

f1-c,

f1-u,

non-f1,

...

}

IABv4AddressesRequested ::= SEQUENCE {

iABv4AddressesRequested IABTNLAddressesRequested,

iE-Extensions ProtocolExtensionContainer { { IABv4AddressesRequested-ExtIEs} } OPTIONAL

}

IABv4AddressesRequested-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

ImplicitFormat ::= SEQUENCE {

dUFSlotformatIndex DUFSlotformatIndex,

iE-Extensions ProtocolExtensionContainer { { ImplicitFormat-ExtIEs } } OPTIONAL

}

ImplicitFormat-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

IgnorePRACHConfiguration::= ENUMERATED { true,...}

IgnoreResourceCoordinationContainer ::= ENUMERATED { yes,...}

InactivityMonitoringRequest ::= ENUMERATED { true,...}

InactivityMonitoringResponse ::= ENUMERATED { not-supported,...}

IndirectPathAddition ::= SEQUENCE {

targetRelayUEID BIT STRING(SIZE(24)),

remoteUELocalID RemoteUELocalID,

iE-Extensions ProtocolExtensionContainer { { IndirectPathAddition-ExtIEs } } OPTIONAL,

...

}

IndirectPathAddition-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

InterfacesToTrace ::= BIT STRING (SIZE(8))

IntendedTDD-DL-ULConfig ::= SEQUENCE {

nRSCS ENUMERATED { scs15, scs30, scs60, scs120,..., scs480, scs960},

nRCP ENUMERATED { normal, extended,...},

nRDLULTxPeriodicity ENUMERATED { ms0p5, ms0p625, ms1, ms1p25, ms2, ms2p5, ms3, ms4, ms5, ms10, ms20, ms40, ms60, ms80, ms100, ms120, ms140, ms160, ...},

slot-Configuration-List Slot-Configuration-List,

iE-Extensions ProtocolExtensionContainer { {IntendedTDD-DL-ULConfig-ExtIEs} } OPTIONAL

}

InterFrequencyConfig-NoGap ::= ENUMERATED {

true,

...

}

IngressNonF1terminatingTopologyIndicator ::= ENUMERATED {true, ...}

IntendedTDD-DL-ULConfig-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

IPHeaderInformation ::= SEQUENCE {

destinationIABTNLAddress IABTNLAddress,

dsInformationList DSInformationList OPTIONAL,

iPv6FlowLabel BIT STRING (SIZE (20)) OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { IPHeaderInformation-ItemExtIEs} } OPTIONAL,

...

}

IPHeaderInformation-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

IPtolayer2TrafficMappingInfo ::= SEQUENCE {

iPtolayer2TrafficMappingInfoToAdd IPtolayer2TrafficMappingInfoList OPTIONAL,

iPtolayer2TrafficMappingInfoToRemove MappingInformationtoRemove OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { IPtolayer2TrafficMappingInfo-ItemExtIEs} } OPTIONAL,

...

}

IPtolayer2TrafficMappingInfoList ::= SEQUENCE (SIZE(1..maxnoofMappingEntries)) OF IPtolayer2TrafficMappingInfo-Item

IPtolayer2TrafficMappingInfo-Item ::= SEQUENCE {

mappingInformationIndex MappingInformationIndex,

iPHeaderInformation IPHeaderInformation,

bHInfo BHInfo, iE-Extensions ProtocolExtensionContainer { { IPtolayer2TrafficMappingInfo-ItemExtIEs} } OPTIONAL,

...

}

IPtolayer2TrafficMappingInfo-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

-- J

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-- L

L139Info ::= SEQUENCE {

prachSCS ENUMERATED {scs15, scs30, scs60, scs120, ..., scs480, scs960},

rootSequenceIndex INTEGER (0..137) OPTIONAL,

iE-Extension ProtocolExtensionContainer { {L139Info-ExtIEs} } OPTIONAL,

...

}

L139Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

L839Info ::= SEQUENCE {

rootSequenceIndex INTEGER (0..837),

restrictedSetConfig ENUMERATED {unrestrictedSet, restrictedSetTypeA,

restrictedSetTypeB, ...},

iE-Extension ProtocolExtensionContainer { {L839Info-ExtIEs} } OPTIONAL,

...

}

L839Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

L571Info ::= SEQUENCE {

prachSCSForL571 ENUMERATED { scs30, scs120, ... , scs480},

rootSequenceIndex INTEGER (0..569),

iE-Extension ProtocolExtensionContainer { {L571Info-ExtIEs} } OPTIONAL,

...

}

L571Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

L1151Info ::= SEQUENCE {

prachSCSForL1151 ENUMERATED { scs15, scs120,...},

rootSequenceIndex INTEGER (0..1149),

iE-Extension ProtocolExtensionContainer { {L1151Info-ExtIEs} } OPTIONAL,

...

}

L1151Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

LastUsedCellIndication ::= ENUMERATED {true, ...}

LCID ::= INTEGER (1..32, ...)

LCS-to-GCS-Translation::= SEQUENCE {

alpha INTEGER (0..3599),

beta INTEGER (0..3599),

gamma INTEGER (0..3599),

iE-Extensions ProtocolExtensionContainer { { LCS-to-GCS-Translation-ExtIEs} } OPTIONAL,

...

}

LCS-to-GCS-Translation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

LCStoGCSTranslationList ::= SEQUENCE (SIZE (1.. maxnooflcs-gcs-translation)) OF LCStoGCSTranslation

LCStoGCSTranslation ::= SEQUENCE {

alpha INTEGER (0..359),

alpha-fine INTEGER (0..9) OPTIONAL,

beta INTEGER (0..359),

beta-fine INTEGER (0..9) OPTIONAL,

gamma INTEGER (0..359),

gamma-fine INTEGER (0..9) OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {LCStoGCSTranslation-ExtIEs} } OPTIONAL

}

LCStoGCSTranslation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

LMF-MeasurementID ::= INTEGER (1.. 65536, ...)

LMF-UE-MeasurementID ::= INTEGER (1.. 256, ...)

LocationDependentMBSF1UInformation ::= SEQUENCE (SIZE(1..maxnoofMBSAreaSessionIDs)) OF LocationDependentMBSF1UInformation-Item

LocationDependentMBSF1UInformation-Item ::= SEQUENCE {

mbsAreaSession-ID MBS-Area-Session-ID,

mbs-f1u-info-at-CU UPTransportLayerInformation,

iE-Extensions ProtocolExtensionContainer { { LocationDependentMBSF1UInformation-Item-ExtIEs } } OPTIONAL,

...

}

LocationDependentMBSF1UInformation-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

LocationMeasurementInformation ::= OCTET STRING

LocationUncertainty ::= SEQUENCE {

horizontalUncertainty INTEGER (0..255),

horizontalConfidence INTEGER (0..100),

verticalUncertainty INTEGER (0..255),

verticalConfidence INTEGER (0..100),

iE-Extensions ProtocolExtensionContainer { { LocationUncertainty-ExtIEs} } OPTIONAL

}

LocationUncertainty-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

LongDRXCycleLength ::= ENUMERATED

{ms10, ms20, ms32, ms40, ms60, ms64, ms70, ms80, ms128, ms160, ms256, ms320, ms512, ms640, ms1024, ms1280, ms2048, ms2560, ms5120, ms10240, ...}

LowerLayerPresenceStatusChange ::= ENUMERATED {

suspend-lower-layers,

resume-lower-layers,

...

}

LoS-NLoSIndicatorHard ::= ENUMERATED {nLoS, loS}

LoS-NLoSIndicatorSoft ::= INTEGER (0..10)

LoS-NLoSInformation ::= CHOICE {

loS-NLoSIndicatorSoft LoS-NLoSIndicatorSoft,

loS-NLoSIndicatorHard LoS-NLoSIndicatorHard,

choice-Extension ProtocolIE-SingleContainer {{ LoS-NLoSInformation-ExtIEs}}

}

LoS-NLoSInformation-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

LTEUESidelinkAggregateMaximumBitrate ::= SEQUENCE {

uELTESidelinkAggregateMaximumBitrate BitRate,

iE-Extensions ProtocolExtensionContainer { {LTEUESidelinkAggregateMaximumBitrate-ExtIEs} } OPTIONAL

}

LTEUESidelinkAggregateMaximumBitrate-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

LTEV2XServicesAuthorized ::= SEQUENCE {

vehicleUE VehicleUE OPTIONAL,

pedestrianUE PedestrianUE OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {LTEV2XServicesAuthorized-ExtIEs} } OPTIONAL

}

LTEV2XServicesAuthorized-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

-- M

MappingInformationIndex ::= BIT STRING (SIZE (26))

MappingInformationtoRemove ::= SEQUENCE (SIZE(1..maxnoofMappingEntries)) OF MappingInformationIndex

MaskedIMEISV ::= BIT STRING (SIZE (64))

MaxDataBurstVolume ::= INTEGER (0..4095, ..., 4096.. 2000000)

MaxPacketLossRate ::= INTEGER (0..1000)

MBS-Broadcast-NeighbourCellList ::= OCTET STRING

MBS-Flows-Mapped-To-MRB-List ::= SEQUENCE (SIZE(1.. maxnoofMBSQoSFlows)) OF MBS-Flows-Mapped-To-MRB-Item

MBS-Flows-Mapped-To-MRB-Item ::= SEQUENCE {

mBS-QoSFlowIdentifier QoSFlowIdentifier,

mbs-QoSFlowLevelQoSParameters QoSFlowLevelQoSParameters,

iE-Extensions ProtocolExtensionContainer { { MBS-Flows-Mapped-To-MRB-Item-ExtIEs} } OPTIONAL

}

MBS-Flows-Mapped-To-MRB-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MBSF1UInformation ::= SEQUENCE {

mbs-f1u-info UPTransportLayerInformation,

iE-Extensions ProtocolExtensionContainer { { MBSF1UInformation-ExtIEs } } OPTIONAL,

...

}

MBSF1UInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MBSInterestIndication ::= OCTET STRING

MBS-Session-ID ::= SEQUENCE {

tMGI TMGI,

nID NID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { MBS-Session-ID-ExtIEs} } OPTIONAL,

...

}

MBS-Session-ID-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MBS-Area-Session-ID ::= INTEGER (0..65535, ...)

MBS-CUtoDURRCInformation ::= SEQUENCE {

mBS-Broadcast-Cell-List MBS-Broadcast-Cell-List,

mBS-Broadcast-MRB-List MBS-Broadcast-MRB-List,

iE-Extensions ProtocolExtensionContainer { { MBS-CUtoDURRCInformation-ExtIEs } } OPTIONAL,

...

}

MBS-CUtoDURRCInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MBS-Broadcast-Cell-List ::= SEQUENCE (SIZE(1.. maxCellingNBDU)) OF MBS-Broadcast-Cell-Item

MBS-Broadcast-Cell-Item ::= SEQUENCE {

nRCGI NRCGI,

mtch-neighbourCell OCTET STRING OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { MBS-Broadcast-Cell-Item-ExtIEs} } OPTIONAL,

...

}

MBS-Broadcast-Cell-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MBS-Broadcast-MRB-List ::= SEQUENCE (SIZE(1.. maxnoofMRBs)) OF MBS-Broadcast-MRB-Item

MBS-Broadcast-MRB-Item ::= SEQUENCE {

mRB-ID MRB-ID,

mRB-PDCP-Config-Broadcast OCTET STRING,

iE-Extensions ProtocolExtensionContainer { { MBS-Broadcast-MRB-Item-ExtIEs} } OPTIONAL,

...

}

MBS-Broadcast-MRB-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MBSMulticastF1UContextDescriptor ::= SEQUENCE {

multicastF1UContextReferenceF1 MulticastF1UContextReferenceF1,

mc-F1UCtxtusage ENUMERATED {ptm, ptp, ptp-retransmission, ptp-forwarding, ...},

mbsAreaSession MBS-Area-Session-ID OPTIONAL,

iE-Extensions ProtocolExtensionContainer {{MBSMulticastF1UContextDescriptor-ExtIEs}} OPTIONAL,

...

}

MBSMulticastF1UContextDescriptor-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

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 ::= {

...

}

MulticastF1UContext-Setup-Item ::= SEQUENCE {

mRB-ID MRB-ID,

mbs-f1u-info-at-CU UPTransportLayerInformation,

iE-Extensions ProtocolExtensionContainer { {MulticastF1UContext-Setup-Item-ExtIEs} } OPTIONAL,

...

}

MulticastF1UContext-Setup-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MulticastF1UContext-FailedToBeSetup-Item ::= SEQUENCE {

mRB-ID MRB-ID,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {MulticastF1UContext-FailedToBeSetup-Item-ExtIEs} } OPTIONAL,

...

}

MulticastF1UContext-FailedToBeSetup-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MBSPTPRetransmissionTunnelRequired ::= ENUMERATED {true, ...}

MBS-ServiceArea ::= CHOICE {

locationindependent MBS-ServiceAreaInformation,

locationdependent MBS-ServiceAreaInformationList,

choice-Extensions ProtocolIE-SingleContainer { {MBSServiceArea-ExtIEs} }

}

MBSServiceArea-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

MBS-ServiceAreaInformation ::= SEQUENCE {

mBS-ServiceAreaCellList MBS-ServiceAreaCellList OPTIONAL,

mBS-ServiceAreaTAIList MBS-ServiceAreaTAIList OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {MBS-ServiceAreaInformation-ExtIEs} } OPTIONAL,

...

}

MBS-ServiceAreaInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MBS-ServiceAreaCellList ::= SEQUENCE (SIZE(1.. maxnoofCellsforMBS)) OF NRCGI

MBS-ServiceAreaTAIList ::= SEQUENCE (SIZE(1.. maxnoofTAIforMBS)) OF MBS-ServiceAreaTAIList-Item

MBS-ServiceAreaTAIList-Item ::= SEQUENCE {

plmn-ID PLMN-Identity,

five5-TAC FiveGS-TAC,

iE-Extensions ProtocolExtensionContainer { {MBS-ServiceAreaTAIList-Item-ExtIEs} } OPTIONAL,

...

}

MBS-ServiceAreaTAIList-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MBS-ServiceAreaInformationList ::= SEQUENCE (SIZE(1..maxnoofMBSServiceAreaInformation)) OF MBS-ServiceAreaInformationItem

MBS-ServiceAreaInformationItem ::= SEQUENCE {

mBS-AreaSessionID MBS-Area-Session-ID,

mBS-ServiceAreaInformation MBS-ServiceAreaInformation,

iE-Extensions ProtocolExtensionContainer { { MBS-ServiceAreaInformationItem-ExtIEs} } OPTIONAL,

...

}

MBS-ServiceAreaInformationItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MC-PagingCell-Item ::= SEQUENCE {

nRCGI NRCGI,

iE-Extensions ProtocolExtensionContainer { { MC-PagingCell-ItemExtIEs } } OPTIONAL

}

MC-PagingCell-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MIB-message ::= OCTET STRING

MeasConfig ::= OCTET STRING

MeasGapConfig ::= OCTET STRING

MeasGapSharingConfig ::= OCTET STRING

PosMeasurementAmount ::= ENUMERATED {ma0, ma1, ma2, ma4, ma8, ma16, ma32, ma64}

MeasurementBeamInfoRequest ::= ENUMERATED {true, ...}

MeasurementBeamInfo ::= SEQUENCE {

pRS-Resource-ID PRS-Resource-ID OPTIONAL,

pRS-Resource-Set-ID PRS-Resource-Set-ID OPTIONAL,

sSB-Index SSB-Index OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { MeasurementBeamInfo-ExtIEs} } OPTIONAL

}

MeasurementBeamInfo-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MeasurementTimingConfiguration ::= OCTET STRING

MessageIdentifier ::= BIT STRING (SIZE (16))

MeasurementTimeOccasion ::= ENUMERATED {o1, o4, ...}

MeasurementCharacteristicsRequestIndicator ::= BIT STRING (SIZE (16))

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 ::= {

...

}

MulticastF1UContextReferenceF1 ::= OCTET STRING (SIZE(4))

MulticastF1UContextReferenceCU ::= OCTET STRING (SIZE(4))

MultipleULAoA ::= SEQUENCE {

multipleULAoA MultipleULAoA-List,

iE-Extensions ProtocolExtensionContainer { { MultipleULAoA-ExtIEs} } OPTIONAL,

...

}

MultipleULAoA-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MultipleULAoA-List ::= SEQUENCE (SIZE(1.. maxnoofULAoAs)) OF MultipleULAoA-Item

MultipleULAoA-Item ::= CHOICE {

uL-AoA UL-AoA,

ul-ZoA ZoAInformation,

choice-extension ProtocolIE-SingleContainer { { MultipleULAoA-Item-ExtIEs } }

}

MultipleULAoA-Item-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

MDTPollutedMeasurementIndicator ::= ENUMERATED {iDC,no-IDC, ...}

MRB-ID ::= INTEGER (1..512, ...)

MulticastMBSSessionList ::= SEQUENCE (SIZE(1..maxnoofMBSSessionsofUE)) OF MulticastMBSSessionList-Item

MulticastMBSSessionList-Item ::= SEQUENCE {

mbsSessionId MBS-Session-ID,

iE-Extensions ProtocolExtensionContainer { { MulticastMBSSessionList-Item-ExtIEs } } OPTIONAL,

...

}

MulticastMBSSessionList-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MulticastMRBs-FailedToBeModified-Item ::= SEQUENCE {

mRB-ID MRB-ID,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { MulticastMRBs-FailedtoBeModified-Item-ExtIEs} } OPTIONAL,

...

}

MulticastMRBs-FailedtoBeModified-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MulticastMRBs-FailedToBeSetup-Item ::= SEQUENCE {

mRB-ID MRB-ID,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { MulticastMRBs-FailedToBeSetup-Item-ExtIEs} } OPTIONAL,

...

}

MulticastMRBs-FailedToBeSetup-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MulticastMRBs-FailedToBeSetupMod-Item ::= SEQUENCE {

mRB-ID MRB-ID,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { MulticastMRBs-FailedToBeSetupMod-Item-ExtIEs} } OPTIONAL,

...

}

MulticastMRBs-FailedToBeSetupMod-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MulticastMRBs-Modified-Item ::= SEQUENCE {

mRB-ID MRB-ID,

iE-Extensions ProtocolExtensionContainer { { MulticastMRBs-Modified-Item-ExtIEs} } OPTIONAL,

...

}

MulticastMRBs-Modified-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MulticastMRBs-Setup-Item ::= SEQUENCE {

mRB-ID MRB-ID,

iE-Extensions ProtocolExtensionContainer { { MulticastMRBs-Setup-Item-ExtIEs} } OPTIONAL,

...

}

MulticastMRBs-Setup-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MulticastMRBs-SetupMod-Item ::= SEQUENCE {

mRB-ID MRB-ID,

iE-Extensions ProtocolExtensionContainer { { MulticastMRBs-SetupMod-Item-ExtIEs} } OPTIONAL,

...

}

MulticastMRBs-SetupMod-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MulticastMRBs-ToBeModified-Item ::= SEQUENCE {

mRB-ID MRB-ID,

mRB-QoSInformation QoSFlowLevelQoSParameters OPTIONAL,

mBS-Flows-Mapped-To-MRB-List MBS-Flows-Mapped-To-MRB-List OPTIONAL,

mBS-DL-PDCP-SN-Length PDCPSNLength OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { MulticastMRBs-ToBeModified-Item-ExtIEs} } OPTIONAL,

...

}

MulticastMRBs-ToBeModified-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MulticastMRBs-ToBeReleased-Item ::= SEQUENCE {

mRB-ID MRB-ID,

iE-Extensions ProtocolExtensionContainer { { MulticastMRBs-ToBeReleased-ItemExtIEs } } OPTIONAL,

...

}

MulticastMRBs-ToBeReleased-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MulticastMRBs-ToBeSetup-Item ::= SEQUENCE {

mRB-ID MRB-ID,

mRB-QoSInformation QoSFlowLevelQoSParameters,

mBS-Flows-Mapped-To-MRB-List MBS-Flows-Mapped-To-MRB-List,

mBS-DL-PDCP-SN-Length PDCPSNLength,

iE-Extensions ProtocolExtensionContainer { { MulticastMRBs-ToBeSetup-Item-ExtIEs} },

...

}

MulticastMRBs-ToBeSetup-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MulticastMRBs-ToBeSetupMod-Item ::= SEQUENCE {

mRB-ID MRB-ID,

mRB-QoSInformation QoSFlowLevelQoSParameters,

mBS-Flows-Mapped-To-MRB-List MBS-Flows-Mapped-To-MRB-List,

mBS-DL-PDCP-SN-Length PDCPSNLength,

iE-Extensions ProtocolExtensionContainer { { MulticastMRBs-ToBeSetupMod-Item-ExtIEs} },

...

}

MulticastMRBs-ToBeSetupMod-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MultiplexingInfo ::= SEQUENCE{

iAB-MT-Cell-List IAB-MT-Cell-List,

iE-Extensions ProtocolExtensionContainer { {MultiplexingInfo-ExtIEs} } OPTIONAL

}

MultiplexingInfo-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

M2Configuration ::= ENUMERATED {true, ...}

M5Configuration ::= SEQUENCE {

m5period M5period,

m5-links-to-log M5-Links-to-log,

iE-Extensions ProtocolExtensionContainer { { M5Configuration-ExtIEs} } OPTIONAL,

...

}

M5Configuration-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ID id-M5ReportAmount CRITICALITY ignore EXTENSION M5ReportAmount PRESENCE optional },

...

}

M5period ::= ENUMERATED { ms1024, ms2048, ms5120, ms10240, min1, ... }

M5ReportAmount ::= ENUMERATED { r1, r2, r4, r8, r16, r32, r64, infinity, ... }

M5-Links-to-log ::= ENUMERATED {uplink, downlink, both-uplink-and-downlink, ...}

M6Configuration ::= SEQUENCE {

m6report-Interval M6report-Interval,

m6-links-to-log M6-Links-to-log,

iE-Extensions ProtocolExtensionContainer { { M6Configuration-ExtIEs} } OPTIONAL,

...

}

M6Configuration-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ID id-M6ReportAmount CRITICALITY ignore EXTENSION M6ReportAmount PRESENCE optional },

...

}

M6report-Interval ::= ENUMERATED { ms120, ms240, ms640, ms1024, ms2048, ms5120, ms10240, ms20480, ms40960, min1, min6, min12, min30, ..., ms480}

M6ReportAmount ::= ENUMERATED { r1, r2, r4, r8, r16, r32, r64, infinity, ... }

M6-Links-to-log ::= ENUMERATED {uplink, downlink, both-uplink-and-downlink, ...}

M7Configuration ::= SEQUENCE {

m7period M7period,

m7-links-to-log M7-Links-to-log,

iE-Extensions ProtocolExtensionContainer { { M7Configuration-ExtIEs} } OPTIONAL,

...

}

M7Configuration-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ID id-M7ReportAmount CRITICALITY ignore EXTENSION M7ReportAmount PRESENCE optional},

...

}

M7period ::= INTEGER(1..60, ...)

M7ReportAmount ::= ENUMERATED { r1, r2, r4, r8, r16, r32, r64, infinity, ... }

M7-Links-to-log ::= ENUMERATED {downlink, ...}

MDT-Activation ::= ENUMERATED {

immediate-MDT-only,

immediate-MDT-and-Trace,

...

}

MDTConfiguration ::= SEQUENCE {

mdt-Activation MDT-Activation,

measurementsToActivate MeasurementsToActivate,

m2Configuration M2Configuration OPTIONAL,

-- C-ifM2: This IE shall be present if the Measurements to Activate IE has the second bit set to "1".

m5Configuration M5Configuration OPTIONAL,

-- C-ifM5: This IE shall be present if the Measurements to Activate IE has the fifth bit set to "1".

m6Configuration M6Configuration OPTIONAL,

-- C-ifM6: This IE shall be present if the Measurements to Activate IE has the seventh bit set to "1".

m7Configuration M7Configuration OPTIONAL,

-- C-ifM7: This IE shall be present if the Measurements to Activate IE has the eighth bit set to "1".

iE-Extensions ProtocolExtensionContainer { { MDTConfiguration-ExtIEs} } OPTIONAL,

...

}

MDTConfiguration-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MDTPLMNList ::= SEQUENCE (SIZE(1..maxnoofMDTPLMNs)) OF PLMN-Identity

MDTPLMNModificationList ::= SEQUENCE (SIZE(0..maxnoofMDTPLMNs)) OF PLMN-Identity

MeasuredResultsValue ::= CHOICE {

uL-AngleOfArrival UL-AoA,

uL-SRS-RSRP UL-SRS-RSRP,

uL-RTOA UL-RTOA-Measurement,

gNB-RxTxTimeDiff GNB-RxTxTimeDiff,

choice-extension ProtocolIE-SingleContainer { { MeasuredResultsValue-ExtIEs } }

}

MeasuredResultsValue-ExtIEs F1AP-PROTOCOL-IES ::= {

{ ID id-ZoAInformation CRITICALITY reject TYPE ZoAInformation PRESENCE mandatory}|

{ ID id-MultipleULAoA CRITICALITY reject TYPE MultipleULAoA PRESENCE mandatory}|

{ ID id-UL-SRS-RSRPP CRITICALITY reject TYPE UL-SRS-RSRPP PRESENCE mandatory},

...

}

MeasurementsToActivate ::= BIT STRING (SIZE (8))

MUSIM-GapConfig ::= OCTET STRING

-- N

N3CIndirectPathAddition::= SEQUENCE {

targetRelayUEID GNB-DU-UE-F1AP-ID,

iE-Extensions ProtocolExtensionContainer { { N3CIndirectPathAddition-ExtIEs } } OPTIONAL,

...

}

N3CIndirectPathAddition-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NA-Resource-Configuration-List ::= SEQUENCE (SIZE(1.. maxnoofHSNASlots)) OF NA-Resource-Configuration-Item

NA-Resource-Configuration-Item ::= SEQUENCE {

nADownlink NADownlink OPTIONAL,

nAUplink NAUplink OPTIONAL,

nAFlexible NAFlexible OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { NA-Resource-Configuration-Item-ExtIEs} } OPTIONAL

}

NA-Resource-Configuration-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NADownlink ::= ENUMERATED { true, false, ...}

NAFlexible ::= ENUMERATED { true, false, ...}

NAUplink ::= ENUMERATED { true, false, ...}

Ncd-SSB-RedCapInitialBWP-SDT ::= OCTET STRING

Neighbour-Node-Cells-List ::= SEQUENCE (SIZE(1..maxnoofNeighbourNodeCellsIAB)) OF Neighbour-Node-Cells-List-Item

Neighbour-Node-Cells-List-Item ::= SEQUENCE{

nRCGI NRCGI,

gNB-CU-UE-F1AP-ID GNB-CU-UE-F1AP-ID OPTIONAL,

gNB-DU-UE-F1AP-ID GNB-DU-UE-F1AP-ID OPTIONAL,

peer-Parent-Node-Indicator ENUMERATED {true, ...} OPTIONAL,

iAB-DU-Cell-Resource-Configuration-Mode-Info IAB-DU-Cell-Resource-Configuration-Mode-Info OPTIONAL,

iAB-STC-Info IAB-STC-Info OPTIONAL,

rACH-Config-Common RACH-Config-Common OPTIONAL,

rACH-Config-Common-IAB RACH-Config-Common-IAB OPTIONAL,

cSI-RS-Configuration OCTET STRING OPTIONAL,

sR-Configuration OCTET STRING OPTIONAL,

pDCCH-ConfigSIB1 OCTET STRING OPTIONAL,

sCS-Common OCTET STRING OPTIONAL,

iE-Extensions ProtocolExtensionContainer {{Neighbour-Node-Cells-List-Item-ExtIEs}} OPTIONAL

}

Neighbour-Node-Cells-List-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NeedforGap::= ENUMERATED {true, ...}

NeedForGapsInfoNR ::= OCTET STRING

NeedForGapNCSGInfoNR ::= OCTET STRING

NeedForGapNCSGInfoEUTRA ::= OCTET STRING

Neighbour-Cell-Information-Item ::= SEQUENCE {

nRCGI NRCGI,

intendedTDD-DL-ULConfig IntendedTDD-DL-ULConfig OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Neighbour-Cell-Information-ItemExtIEs } } OPTIONAL

}

Neighbour-Cell-Information-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NeighbourNR-CellsForSON-List ::= SEQUENCE (SIZE(1.. maxNeighbourCellforSON)) OF NeighbourNR-CellsForSON-Item

NeighbourNR-CellsForSON-Item ::= SEQUENCE {

nRCGI NRCGI,

nR-ModeInfoRel16 NR-ModeInfoRel16 OPTIONAL,

sSB-PositionsInBurst SSB-PositionsInBurst OPTIONAL,

nRPRACHConfig NRPRACHConfig OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { NeighbourNR-CellsForSON-Item-ExtIEs} } OPTIONAL,

...

}

NeighbourNR-CellsForSON-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NGRANAllocationAndRetentionPriority ::= SEQUENCE {

priorityLevel PriorityLevel,

pre-emptionCapability Pre-emptionCapability,

pre-emptionVulnerability Pre-emptionVulnerability,

iE-Extensions ProtocolExtensionContainer { {NGRANAllocationAndRetentionPriority-ExtIEs} } OPTIONAL

}

NGRANAllocationAndRetentionPriority-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NGRANHighAccuracyAccessPointPosition ::= SEQUENCE {

latitude INTEGER (-2147483648.. 2147483647),

longitude INTEGER (-2147483648.. 2147483647),

altitude INTEGER (-64000..1280000),

uncertaintySemi-major INTEGER (0..255),

uncertaintySemi-minor INTEGER (0..255),

orientationOfMajorAxis INTEGER (0..179),

horizontalConfidence INTEGER (0..100),

uncertaintyAltitude INTEGER (0..255),

verticalConfidence INTEGER (0..100),

iE-Extensions ProtocolExtensionContainer { { NGRANHighAccuracyAccessPointPosition-ExtIEs} } OPTIONAL

}

NGRANHighAccuracyAccessPointPosition-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NID ::= BIT STRING (SIZE(44))

NonF1terminatingTopologyIndicator ::= ENUMERATED {

true,

...

}

NR-CGI-List-For-Restart-Item ::= SEQUENCE {

nRCGI NRCGI,

iE-Extensions ProtocolExtensionContainer { { NR-CGI-List-For-Restart-ItemExtIEs } } OPTIONAL,

...

}

NR-CGI-List-For-Restart-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NrofSymbolsExtended ::= ENUMERATED {n8, n10, n12, n14, ...}

NR-PRSBeamInformation ::= SEQUENCE {

nR-PRSBeamInformationList NR-PRSBeamInformationList,

lCStoGCSTranslationList LCStoGCSTranslationList OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { NR-PRSBeamInformation-ExtIEs } } OPTIONAL

}

NR-PRSBeamInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NR-PRSBeamInformationList ::= SEQUENCE (SIZE(1.. maxnoofPRS-ResourceSets)) OF NR-PRSBeamInformationItem

NR-PRSBeamInformationItem ::= SEQUENCE {

pRSResourceSetID PRS-Resource-Set-ID,

pRSAngleList PRSAngleList,

iE-Extensions ProtocolExtensionContainer { { NR-PRSBeamInformationItem-ExtIEs } } OPTIONAL

}

NR-PRSBeamInformationItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NR-TADV ::= INTEGER (0.. 7690)

NRRedCapUEIndication ::= ENUMERATED {true, ...}

NRPagingeDRXInformation ::= SEQUENCE {

nrpaging-eDRX-Cycle-Idle NRPaging-eDRX-Cycle-Idle,

nrpaging-Time-Window NRPaging-Time-Window OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {NRPagingeDRXInformation-ExtIEs} } OPTIONAL,

...

}

NRPagingeDRXInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NRPaging-eDRX-Cycle-Idle ::= ENUMERATED {

hfquarter, hfhalf, hf1, hf2, hf4,

hf8, hf16, hf32, hf64, hf128, hf256, hf512, hf1024,

...

}

NRPaging-Time-Window ::= ENUMERATED {

s1, s2, s3, s4, s5,

s6, s7, s8, s9, s10,

s11, s12, s13, s14, s15, s16,

...,

s17, s18, s19, s20, s21,

s22, s23, s24, s25, s26,

s27, s28, s29, s30, s31, s32

}

NRPagingeDRXInformationforRRCINACTIVE ::= SEQUENCE {

nrpaging-eDRX-Cycle-Inactive NRPaging-eDRX-Cycle-Inactive,

iE-Extensions ProtocolExtensionContainer { { NRPagingeDRXInformationforRRCINACTIVE-ExtIEs} } OPTIONAL,

...

}

NRPagingeDRXInformationforRRCINACTIVE-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NRPaging-eDRX-Cycle-Inactive ::= ENUMERATED {

hfquarter, hfhalf, hf1,

...

}

NonDynamic5QIDescriptor ::= SEQUENCE {

fiveQI INTEGER (0..255, ...),

qoSPriorityLevel INTEGER (1..127) OPTIONAL,

averagingWindow AveragingWindow OPTIONAL,

maxDataBurstVolume MaxDataBurstVolume OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { NonDynamic5QIDescriptor-ExtIEs } } OPTIONAL

}

NonDynamic5QIDescriptor-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-CNPacketDelayBudgetDownlink CRITICALITY ignore EXTENSION ExtendedPacketDelayBudget PRESENCE optional }|

{ ID id-CNPacketDelayBudgetUplink CRITICALITY ignore EXTENSION ExtendedPacketDelayBudget PRESENCE optional },

...

}

NonDynamicPQIDescriptor ::= SEQUENCE {

fiveQI INTEGER (0..255, ...),

qoSPriorityLevel INTEGER (1..8, ...) OPTIONAL,

averagingWindow AveragingWindow OPTIONAL,

maxDataBurstVolume MaxDataBurstVolume OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { NonDynamicPQIDescriptor-ExtIEs } } OPTIONAL

}

NonDynamicPQIDescriptor-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NonUPTrafficType ::= ENUMERATED {ue-associated, non-ue-associated, non-f1, bap-control-pdu,...}

NoofDownlinkSymbols ::= INTEGER (0..14)

NoofUplinkSymbols ::= INTEGER (0..14)

Notification-Cause ::= ENUMERATED {fulfilled, not-fulfilled, ...}

NotificationControl ::= ENUMERATED {active, not-active, ...}

NotificationInformation ::= SEQUENCE {

message-Identifier MessageIdentifier,

serialNumber SerialNumber,

iE-Extensions ProtocolExtensionContainer { { NotificationInformationExtIEs} } OPTIONAL,

...

}

NotificationInformationExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NPNBroadcastInformation ::= CHOICE {

sNPN-Broadcast-Information NPN-Broadcast-Information-SNPN,

pNI-NPN-Broadcast-Information NPN-Broadcast-Information-PNI-NPN,

choice-extension ProtocolIE-SingleContainer { {NPNBroadcastInformation-ExtIEs} }

}

NPNBroadcastInformation-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

NPN-Broadcast-Information-SNPN ::= SEQUENCE {

broadcastSNPNID-List BroadcastSNPN-ID-List,

iE-Extension ProtocolExtensionContainer { {NPN-Broadcast-Information-SNPN-ExtIEs} } OPTIONAL,

...

}

NPN-Broadcast-Information-SNPN-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NPN-Broadcast-Information-PNI-NPN ::= SEQUENCE {

broadcastPNI-NPN-ID-Information BroadcastPNI-NPN-ID-List,

iE-Extension ProtocolExtensionContainer { {NPN-Broadcast-Information-PNI-NPN-ExtIEs} } OPTIONAL,

...

}

NPN-Broadcast-Information-PNI-NPN-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NPNSupportInfo ::= CHOICE {

sNPN-Information NID,

choice-extension ProtocolIE-SingleContainer { { NPNSupportInfo-ExtIEs } }

}

NPNSupportInfo-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

NRCarrierList ::= SEQUENCE (SIZE(1..maxnoofNRSCSs)) OF NRCarrierItem

NRCarrierItem ::= SEQUENCE {

carrierSCS NRSCS,

offsetToCarrier INTEGER (0..2199, ...),

carrierBandwidth INTEGER (0..maxnoofPhysicalResourceBlocks, ...),

iE-Extension ProtocolExtensionContainer { {NRCarrierItem-ExtIEs} } OPTIONAL,

...

}

NRCarrierItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NRFreqInfo ::= SEQUENCE {

nRARFCN INTEGER (0..maxNRARFCN),

sul-Information SUL-Information OPTIONAL,

freqBandListNr SEQUENCE (SIZE(1..maxnoofNrCellBands)) OF FreqBandNrItem,

iE-Extensions ProtocolExtensionContainer { { NRFreqInfoExtIEs} } OPTIONAL,

...

}

NRFreqInfoExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-FrequencyShift7p5khz CRITICALITY ignore EXTENSION FrequencyShift7p5khz PRESENCE optional },

...

}

NRCGI ::= SEQUENCE {

pLMN-Identity PLMN-Identity,

nRCellIdentity NRCellIdentity,

iE-Extensions ProtocolExtensionContainer { {NRCGI-ExtIEs} } OPTIONAL,

...

}

NRCGI-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NR-Mode-Info ::= CHOICE {

fDD FDD-Info,

tDD TDD-Info,

choice-extension ProtocolIE-SingleContainer { { NR-Mode-Info-ExtIEs} }

}

NR-Mode-Info-ExtIEs F1AP-PROTOCOL-IES ::= {

{ ID id-NR-U CRITICALITY ignore TYPE NR-U-Channel-Info-List PRESENCE optional },

...

}

NR-ModeInfoRel16 ::= CHOICE {

fDD FDD-InfoRel16,

tDD TDD-InfoRel16,

choice-extension ProtocolIE-SingleContainer { { NR-ModeInfoRel16-ExtIEs} }

}

NR-ModeInfoRel16-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

NRPRACHConfig ::= SEQUENCE {

ulPRACHConfigList NRPRACHConfigList OPTIONAL,

sulPRACHConfigList NRPRACHConfigList OPTIONAL,

iE-Extension ProtocolExtensionContainer { {NRPRACHConfig-ExtIEs} } OPTIONAL,

...

}

NRPRACHConfig-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NRCellIdentity ::= BIT STRING (SIZE(36))

NRNRB ::= ENUMERATED { nrb11, nrb18, nrb24, nrb25, nrb31, nrb32, nrb38, nrb51, nrb52, nrb65, nrb66, nrb78, nrb79, nrb93, nrb106, nrb107, nrb121, nrb132, nrb133, nrb135, nrb160, nrb162, nrb189, nrb216, nrb217, nrb245, nrb264, nrb270, nrb273, ..., nrb33, nrb62, nrb124, nrb148, nrb248, nrb44, nrb58, nrb92, nrb119, nrb188, nrb242}

NRPCI ::= INTEGER(0..1007)

NRPRACHConfigList ::= SEQUENCE (SIZE(0..maxnoofPRACHconfigs)) OF NRPRACHConfigItem

NRPRACHConfigItem ::= SEQUENCE {

nRSCS NRSCS,

prachFreqStartfromCarrier INTEGER (0..maxnoofPhysicalResourceBlocks-1, ...),

prachFDM ENUMERATED {one, two, four, eight, ...},

prachConfigIndex INTEGER (0..255, ..., 256..262),

ssb-perRACH-Occasion ENUMERATED {oneEighth, oneFourth, oneHalf, one,

two, four, eight, sixteen, ...},

freqDomainLength FreqDomainLength,

zeroCorrelZoneConfig INTEGER (0..15),

iE-Extension ProtocolExtensionContainer { { NRPRACHConfigItem-ExtIEs} } OPTIONAL,

...

}

NRPRACHConfigItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NRSCS ::= ENUMERATED { scs15, scs30, scs60, scs120, ..., scs480, scs960}

NRUERLFReportContainer ::= OCTET STRING

NR-U-Channel-Info-List ::= SEQUENCE (SIZE (1..maxnoofNR-UChannelIDs)) OF NR-U-Channel-Info-Item

NR-U-Channel-Info-Item ::= SEQUENCE {

nr-U-channel-ID INTEGER(1.. maxnoofNR-UChannelIDs,...),

nR-ARFCN INTEGER (0..maxNRARFCN),

bandwidth ENUMERATED{mHz-10,mHz-20,mHz-40, mHz-60, mHz-80,...},

iE-Extensions ProtocolExtensionContainer { { NR-U-Channel-Info-List-ExtIEs } } OPTIONAL,

...

}

NR-U-Channel-Info-List-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NR-U-Channel-List ::= SEQUENCE (SIZE (1..maxnoofNR-UChannelIDs)) OF NR-U-Channel-Item

NR-U-Channel-Item ::= SEQUENCE {

nR-U-ChannelID INTEGER(1..maxnoofNR-UChannelIDs),

channelOccupancyTimePercentageDL ChannelOccupancyTimePercentage,

energyDetectionThreshold EnergyDetectionThreshold,

iE-Extensions ProtocolExtensionContainer { { NR-U-Channel-Item-ExtIEs} } OPTIONAL,

...

}

NR-U-Channel-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NumberofActiveUEs ::= INTEGER(0..16777215, ...)

NumberOfBroadcasts ::= INTEGER (0..65535)

NumberofBroadcastRequest ::= INTEGER (0..65535)

NumberOfTRPRxTEG ::= ENUMERATED {two, three, four, six, eight, ...}

NumberOfTRPRxTxTEG ::= ENUMERATED {wo, three, four, six, eight, ...}

NumDLULSymbols ::= SEQUENCE {

numDLSymbols INTEGER (0..13, ...),

numULSymbols INTEGER (0..13, ...),

iE-Extensions ProtocolExtensionContainer { { NumDLULSymbols-ExtIEs} } OPTIONAL

}

NumDLULSymbols-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-permutation CRITICALITY ignore EXTENSION Permutation PRESENCE optional },

...

}

NRV2XServicesAuthorized ::= SEQUENCE {

vehicleUE VehicleUE OPTIONAL,

pedestrianUE PedestrianUE OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {NRV2XServicesAuthorized-ExtIEs} } OPTIONAL

}

NRV2XServicesAuthorized-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NRUESidelinkAggregateMaximumBitrate ::= SEQUENCE {

uENRSidelinkAggregateMaximumBitrate BitRate,

iE-Extensions ProtocolExtensionContainer { {NRUESidelinkAggregateMaximumBitrate-ExtIEs} } OPTIONAL

}

NRUESidelinkAggregateMaximumBitrate-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NZP-CSI-RS-ResourceID::= INTEGER (0..191)

-- O

OffsetToPointA ::= INTEGER (0..2199,...)

OnDemandPRS-Info ::= SEQUENCE {

onDemandPRSRequestAllowed BIT STRING (SIZE (16)),

allowedResourceSetPeriodicityValues BIT STRING (SIZE (24)) OPTIONAL,

allowedPRSBandwidthValues BIT STRING (SIZE (64)) OPTIONAL,

allowedResourceRepetitionFactorValues BIT STRING (SIZE (8)) OPTIONAL,

allowedResourceNumberOfSymbolsValues BIT STRING (SIZE (8)) OPTIONAL,

allowedCombSizeValues BIT STRING (SIZE (8)) OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { OnDemandPRS-Info-ExtIEs} } OPTIONAL,

...

}

OnDemandPRS-Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

-- P

PacketDelayBudget ::= INTEGER (0..1023, ...)

PacketErrorRate ::= SEQUENCE {

pER-Scalar PER-Scalar,

pER-Exponent PER-Exponent,

iE-Extensions ProtocolExtensionContainer { {PacketErrorRate-ExtIEs} } OPTIONAL,

...

}

PacketErrorRate-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PathAdditionInformation ::= CHOICE {

indirectPathAddition IndirectPathAddition,

directPathAddition NULL,

n3C-indirectPathAddition N3CIndirectPathAddition,

choice-extension ProtocolIE-SingleContainer { { PathAdditionInformation-ExtIEs} }

}

PathAdditionInformation-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

PER-Scalar ::= INTEGER (0..9, ...)

PER-Exponent ::= INTEGER (0..9, ...)

PagingCell-Item ::= SEQUENCE {

nRCGI NRCGI ,

iE-Extensions ProtocolExtensionContainer { { PagingCell-ItemExtIEs } } OPTIONAL

}

PagingCell-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-LastUsedCellIndication CRITICALITY ignore EXTENSION LastUsedCellIndication PRESENCE optional }|

{ ID id-PEISubgroupingSupportIndication CRITICALITY ignore EXTENSION PEISubgroupingSupportIndication PRESENCE optional },

...

}

PagingDRX ::= ENUMERATED {

v32,

v64,

v128,

v256,

...

}

PagingIdentity ::= CHOICE {

rANUEPagingIdentity RANUEPagingIdentity,

cNUEPagingIdentity CNUEPagingIdentity,

choice-extension ProtocolIE-SingleContainer { { PagingIdentity-ExtIEs } }

}

PagingCause ::= ENUMERATED { voice, ...}

PagingIdentity-ExtIEs F1AP-PROTOCOL-IES::= {

...

}

PagingOrigin ::= ENUMERATED { non-3gpp, ...}

PagingPriority ::= ENUMERATED { priolevel1, priolevel2, priolevel3, priolevel4, priolevel5, priolevel6, priolevel7, priolevel8,...}

PEIPSAssistanceInfo ::= SEQUENCE {

cNSubgroupID CNSubgroupID,

iE-Extensions ProtocolExtensionContainer { { PEIPSAssistanceInfo-ExtIEs } } OPTIONAL

}

PEIPSAssistanceInfo-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RelativePathDelay ::= CHOICE {

k0 INTEGER (0..16351),

k1 INTEGER (0..8176),

k2 INTEGER (0..4088),

k3 INTEGER (0..2044),

k4 INTEGER (0..1022),

k5 INTEGER (0..511),

choice-extension ProtocolIE-SingleContainer { { RelativePathDelay-ExtIEs } }

}

RelativePathDelay-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

Parent-IAB-Nodes-NA-Resource-Configuration-List ::= SEQUENCE (SIZE(1..maxnoofHSNASlots)) OF Parent-IAB-Nodes-NA-Resource-Configuration-Item

Parent-IAB-Nodes-NA-Resource-Configuration-Item::= SEQUENCE {

nADownlink NADownlink OPTIONAL,

nAUplink NAUplink OPTIONAL,

nAFlexible NAFlexible OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Parent-IAB-Nodes-NA-Resource-Configuration-Item-ExtIEs} } OPTIONAL

}

Parent-IAB-Nodes-NA-Resource-Configuration-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PartialSuccessCell ::= SEQUENCE {

broadcastCellList BroadcastCellList,

iE-Extensions ProtocolExtensionContainer { { PartialSuccessCell-ExtIEs} } OPTIONAL,

...

}

PartialSuccessCell-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PathlossReferenceInfo ::= SEQUENCE {

pathlossReferenceSignal PathlossReferenceSignal,

iE-Extensions ProtocolExtensionContainer { {PathlossReferenceInfo-ExtIEs} } OPTIONAL

}

PathlossReferenceInfo-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PathlossReferenceSignal ::= CHOICE {

sSB SSB,

dL-PRS DL-PRS,

choice-extension ProtocolIE-SingleContainer {{PathlossReferenceSignal-ExtIEs }}

}

PathlossReferenceSignal-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

PathSwitchConfiguration ::= SEQUENCE {

targetRelayUEID BIT STRING(SIZE(24)),

remoteUELocalID RemoteUELocalID,

t420 ENUMERATED {ms50, ms100, ms150, ms200, ms500, ms1000, ms2000, ms10000},

iE-Extensions ProtocolExtensionContainer { { PathSwitchConfiguration-ExtIEs } } OPTIONAL,

...

}

PathSwitchConfiguration-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PC5QoSFlowIdentifier ::= INTEGER (1..2048)

PC5-QoS-Characteristics ::= CHOICE {

non-Dynamic-PQI NonDynamicPQIDescriptor,

dynamic-PQI DynamicPQIDescriptor,

choice-extension ProtocolIE-SingleContainer { { PC5-QoS-Characteristics-ExtIEs } }

}

PC5-QoS-Characteristics-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

PC5QoSParameters ::= SEQUENCE {

pC5-QoS-Characteristics PC5-QoS-Characteristics,

pC5-QoS-Flow-Bit-Rates PC5FlowBitRates OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PC5QoSParameters-ExtIEs } } OPTIONAL,

...

}

PC5QoSParameters-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PC5FlowBitRates ::= SEQUENCE {

guaranteedFlowBitRate BitRate,

maximumFlowBitRate BitRate,

iE-Extensions ProtocolExtensionContainer { { PC5FlowBitRates-ExtIEs } } OPTIONAL,

...

}

PC5FlowBitRates-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PC5RLCChannelID ::= INTEGER (1..512, ...)

PC5RLCChannelQoSInformation ::= CHOICE {

pC5RLCChannelQoS QoSFlowLevelQoSParameters,

pC5ControlPlaneTrafficType ENUMERATED {srb1,srb2,...},

choice-extension ProtocolIE-SingleContainer { { PC5RLCChannelQoSInformation-ExtIEs} }

}

PC5RLCChannelQoSInformation-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

PC5RLCChannelToBeSetupList ::= SEQUENCE (SIZE(1.. maxnoofPC5RLCChannels)) OF PC5RLCChannelToBeSetupItem

PC5RLCChannelToBeSetupItem ::= SEQUENCE {

pC5RLCChannelID PC5RLCChannelID,

remoteUELocalID RemoteUELocalID OPTIONAL,

pC5RLCChannelQoSInformation PC5RLCChannelQoSInformation,

rLCMode RLCMode,

iE-Extensions ProtocolExtensionContainer { { PC5RLCChannelToBeSetupItem-ExtIEs } } OPTIONAL,

...

}

PC5RLCChannelToBeSetupItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PC5RLCChannelToBeModifiedList ::= SEQUENCE (SIZE(1.. maxnoofPC5RLCChannels)) OF PC5RLCChannelToBeModifiedItem

PC5RLCChannelToBeModifiedItem ::= SEQUENCE {

pC5RLCChannelID PC5RLCChannelID,

remoteUELocalID RemoteUELocalID OPTIONAL,

pC5RLCChannelQoSInformation PC5RLCChannelQoSInformation OPTIONAL,

rLCMode RLCMode OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PC5RLCChannelToBeModifiedItem-ExtIEs } } OPTIONAL,

...

}

PC5RLCChannelToBeModifiedItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PC5RLCChannelToBeReleasedList ::= SEQUENCE (SIZE(1.. maxnoofPC5RLCChannels)) OF PC5RLCChannelToBeReleasedItem

PC5RLCChannelToBeReleasedItem ::= SEQUENCE {

pC5RLCChannelID PC5RLCChannelID,

remoteUELocalID RemoteUELocalID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PC5RLCChannelToBeReleasedItem-ExtIEs } } OPTIONAL,

...

}

PC5RLCChannelToBeReleasedItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PC5RLCChannelSetupList ::= SEQUENCE (SIZE(1.. maxnoofPC5RLCChannels)) OF PC5RLCChannelSetupItem

PC5RLCChannelSetupItem ::= SEQUENCE {

pC5RLCChannelID PC5RLCChannelID,

remoteUELocalID RemoteUELocalID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PC5RLCChannelSetupItem-ExtIEs } } OPTIONAL,

...

}

PC5RLCChannelSetupItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PC5RLCChannelFailedToBeSetupList ::= SEQUENCE (SIZE(1.. maxnoofPC5RLCChannels)) OF PC5RLCChannelFailedToBeSetupItem

PC5RLCChannelFailedToBeSetupItem ::= SEQUENCE {

pC5RLCChannelID PC5RLCChannelID,

remoteUELocalID RemoteUELocalID OPTIONAL,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PC5RLCChannelFailedToBeSetupItem-ExtIEs } } OPTIONAL,

...

}

PC5RLCChannelFailedToBeSetupItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PC5RLCChannelModifiedList ::= SEQUENCE (SIZE(1.. maxnoofPC5RLCChannels)) OF PC5RLCChannelModifiedItem

PC5RLCChannelModifiedItem ::= SEQUENCE {

pC5RLCChannelID PC5RLCChannelID,

remoteUELocalID RemoteUELocalID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PC5RLCChannelModifiedItem-ExtIEs } } OPTIONAL,

...

}

PC5RLCChannelModifiedItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PC5RLCChannelFailedToBeModifiedList ::= SEQUENCE (SIZE(1.. maxnoofPC5RLCChannels)) OF PC5RLCChannelFailedToBeModifiedItem

PC5RLCChannelFailedToBeModifiedItem ::= SEQUENCE {

pC5RLCChannelID PC5RLCChannelID,

remoteUELocalID RemoteUELocalID OPTIONAL,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PC5RLCChannelFailedToBeModifiedItem-ExtIEs } } OPTIONAL,

...

}

PC5RLCChannelFailedToBeModifiedItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PC5RLCChannelRequiredToBeModifiedList ::= SEQUENCE (SIZE(1.. maxnoofPC5RLCChannels)) OF PC5RLCChannelRequiredToBeModifiedItem

PC5RLCChannelRequiredToBeModifiedItem ::= SEQUENCE {

pC5RLCChannelID PC5RLCChannelID,

remoteUELocalID RemoteUELocalID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PC5RLCChannelRequiredToBeModifiedItem-ExtIEs } } OPTIONAL,

...

}

PC5RLCChannelRequiredToBeModifiedItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PC5RLCChannelRequiredToBeReleasedList ::= SEQUENCE (SIZE(1.. maxnoofPC5RLCChannels)) OF PC5RLCChannelRequiredToBeReleasedItem

PC5RLCChannelRequiredToBeReleasedItem ::= SEQUENCE {

pC5RLCChannelID PC5RLCChannelID,

remoteUELocalID RemoteUELocalID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PC5RLCChannelRequiredToBeReleasedItem-ExtIEs } } OPTIONAL,

...

}

PC5RLCChannelRequiredToBeReleasedItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PDCCH-BlindDetectionSCG ::= OCTET STRING

PDCMeasurementPeriodicity ::= ENUMERATED

{ms80, ms120, ms160, ms240, ms320, ms480, ms640, ms1024, ms1280, ms2048, ms2560, ms5120, ...}

PDCMeasurementQuantities ::= SEQUENCE (SIZE (1.. maxnoofMeasPDC)) OF ProtocolIE-SingleContainer { {PDCMeasurementQuantities-ItemIEs} }

PDCMeasurementQuantities-ItemIEs F1AP-PROTOCOL-IES ::= {

{ ID id-PDCMeasurementQuantities-Item CRITICALITY reject TYPE PDCMeasurementQuantities-Item PRESENCE mandatory}

}

PDCMeasurementQuantities-Item ::= SEQUENCE {

pDCmeasurementQuantitiesValue PDCMeasurementQuantitiesValue,

iE-Extensions ProtocolExtensionContainer { { PDCMeasurementQuantitiesValue-ExtIEs} } OPTIONAL

}

PDCMeasurementQuantitiesValue-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PDCMeasurementQuantitiesValue ::= ENUMERATED {

nr-pdc-tadv,

gNB-rx-tx,

...

}

PDCMeasurementResult ::= SEQUENCE {

pDCMeasuredResultsList PDCMeasuredResultsList,

iE-Extensions ProtocolExtensionContainer { { PDCMeasurementResult-ExtIEs} } OPTIONAL

}

PDCMeasurementResult-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PDCMeasuredResultsList ::= SEQUENCE (SIZE(1..maxnoofMeasPDC)) OF PDCMeasuredResults-Item

PDCMeasuredResults-Item ::= SEQUENCE {

pDCMeasuredResults-Value PDCMeasuredResults-Value,

iE-Extensions ProtocolExtensionContainer {{ PDCMeasuredResults-Item-ExtIEs }} OPTIONAL

}

PDCMeasuredResults-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PDCMeasuredResults-Value ::= CHOICE {

pDC-TADV-NR PDC-TADV-NR,

pDC-RxTxTimeDiff PDC-RxTxTimeDiff,

choice-extension ProtocolIE-SingleContainer { { PDCMeasuredResults-Value-ExtIEs} }

}

PDCMeasuredResults-Value-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

PDCReportType ::= ENUMERATED {

onDemand,

periodic,

...

}

PDC-RxTxTimeDiff ::= INTEGER (0..61565, ...)

PDC-TADV-NR ::= INTEGER (0..62500, ...)

PDCP-SN ::= INTEGER (0..4095)

PDCPSNLength ::= ENUMERATED { twelve-bits,eighteen-bits,...}

PDUSessionID ::= INTEGER (0..255)

PEISubgroupingSupportIndication ::= ENUMERATED {true, ...}

ReportingPeriodicityValue ::= INTEGER (0..512, ...)

Periodicity ::= INTEGER (0..640000, ...)

PeriodicitySRS ::= ENUMERATED { ms0p125, ms0p25, ms0p5, ms0p625, ms1, ms1p25, ms2, ms2p5, ms4, ms5, ms8, ms10, ms16, ms20, ms32, ms40, ms64, ms80, ms160, ms320, ms640, ms1280, ms2560, ms5120, ms10240, ...}

PeriodicityList ::= SEQUENCE (SIZE(1.. maxnoSRS-ResourcePerSet)) OF PeriodicityList-Item

PeriodicityList-Item ::= SEQUENCE {

periodicitySRS PeriodicitySRS,

iE-Extensions ProtocolExtensionContainer { { PeriodicityList-ItemExtIEs} } OPTIONAL

}

PeriodicityList-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Permutation ::= ENUMERATED {dfu, ufd, ...}

Ph-InfoMCG ::= OCTET STRING

Ph-InfoSCG ::= OCTET STRING

PLMN-Identity ::= OCTET STRING (SIZE(3))

PlayoutDelayForMediaStartup ::= OCTET STRING

PortNumber ::= BIT STRING (SIZE (16))

PosAssistance-Information ::= OCTET STRING

PosAssistanceInformationFailureList ::= OCTET STRING

PosBroadcast ::= ENUMERATED {

start,

stop,

...

}

PosConextRevIndication ::= ENUMERATED {true, ...}

PositioningBroadcastCells ::= SEQUENCE (SIZE (1..maxnoBcastCell)) OF NRCGI

PosMeasGapPreConfigList ::= SEQUENCE {

posMeasGapPreConfigToAddModList OCTET STRING OPTIONAL,

posMeasGapPreConfigToReleaseList OCTET STRING OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PosMeasGapPreConfigList-ExtIEs} } OPTIONAL

}

PosMeasGapPreConfigList-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MeasurementPeriodicity ::= ENUMERATED

{ms120, ms240, ms480, ms640, ms1024, ms2048, ms5120, ms10240, min1, min6, min12, min30, ..., ms20480, ms40960, extended }

MeasurementPeriodicityExtended ::= ENUMERATED {ms160, ms320, ms1280, ms2560, ms61440, ms81920, ms368640, ms737280, ms1843200, ...}

PosMeasurementPeriodicityNR-AoA ::= ENUMERATED {

ms160,

ms320,

ms640,

ms1280,

ms2560,

ms5120,

ms10240,

ms20480,

ms40960,

ms61440,

ms81920,

ms368640,

ms737280,

ms1843200,

...

}

PosMeasurementQuantities ::= SEQUENCE (SIZE(1.. maxnoofPosMeas)) OF PosMeasurementQuantities-Item

PosMeasurementQuantities-Item ::= SEQUENCE {

posMeasurementType PosMeasurementType,

timingReportingGranularityFactor INTEGER (0..5) OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PosMeasurementQuantities-ItemExtIEs} } OPTIONAL

}

PosMeasurementQuantities-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PosMeasurementResult ::= SEQUENCE (SIZE (1.. maxnoofPosMeas)) OF PosMeasurementResultItem

PosMeasurementResultItem ::= SEQUENCE {

measuredResultsValue MeasuredResultsValue,

timeStamp TimeStamp,

measurementQuality TRPMeasurementQuality OPTIONAL,

measurementBeamInfo MeasurementBeamInfo OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PosMeasurementResultItemExtIEs } } OPTIONAL

}

PosMeasurementResultItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-ARP-ID CRITICALITY ignore EXTENSION ARP-ID PRESENCE optional}|

{ ID id-SRSResourcetype CRITICALITY ignore EXTENSION SRSResourcetype PRESENCE optional}|

{ ID id-LoS-NLoSInformation CRITICALITY ignore EXTENSION LoS-NLoSInformation PRESENCE optional },

...

}

PosMeasurementResultList ::= SEQUENCE (SIZE(1.. maxNoOfMeasTRPs)) OF PosMeasurementResultList-Item

PosMeasurementResultList-Item ::= SEQUENCE {

posMeasurementResult PosMeasurementResult,

tRPID TRPID,

iE-Extensions ProtocolExtensionContainer { { PosMeasurementResultList-ItemExtIEs} } OPTIONAL

}

PosMeasurementResultList-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-NRCGI CRITICALITY ignore EXTENSION NRCGI PRESENCE optional },

...

}

PosMeasurementType ::= ENUMERATED {

gnb-rx-tx,

ul-srs-rsrp,

ul-aoa,

ul-rtoa,

... ,

multiple-ul-aoa,

ul-srs-rsrpp

}

PosReportCharacteristics ::= ENUMERATED {

ondemand,

periodic,

...

}

PosResourceSetType ::= CHOICE {

periodic PosResourceSetTypePR,

semi-persistent PosResourceSetTypeSP,

aperiodic PosResourceSetTypeAP,

choice-extension ProtocolIE-SingleContainer {{ PosResourceSetType-ExtIEs }}

}

PosResourceSetType-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

PosResourceSetTypePR ::= SEQUENCE {

posperiodicSet ENUMERATED{true, ...},

iE-Extensions ProtocolExtensionContainer { { PosResourceSetTypePR-ExtIEs} } OPTIONAL

}

PosResourceSetTypePR-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PosResourceSetTypeSP ::= SEQUENCE {

possemi-persistentSet ENUMERATED{true, ...},

iE-Extensions ProtocolExtensionContainer { { PosResourceSetTypeSP-ExtIEs} } OPTIONAL

}

PosResourceSetTypeSP-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PosResourceSetTypeAP ::= SEQUENCE {

sRSResourceTrigger-List INTEGER(1..3),

iE-Extensions ProtocolExtensionContainer { { PosResourceSetTypeAP-ExtIEs} } OPTIONAL

}

PosResourceSetTypeAP-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PosSItypeList ::= SEQUENCE (SIZE(1.. maxnoofPosSITypes)) OF PosSItype-Item

PosSItype-Item ::= SEQUENCE {

posItype PosSItype ,

iE-Extensions ProtocolExtensionContainer { { PosSItype-ItemExtIEs } } OPTIONAL

}

PosSItype-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PosSItype ::= INTEGER (1..32, ...)

PosSRSResourceID-List ::= SEQUENCE (SIZE (1..maxnoSRS-PosResourcePerSet)) OF SRSPosResourceID

PosSRSResource-Item ::= SEQUENCE {

srs-PosResourceId SRSPosResourceID,

transmissionCombPos TransmissionCombPos,

startPosition INTEGER (0..13),

nrofSymbols ENUMERATED {n1, n2, n4, n8, n12},

freqDomainShift INTEGER (0..268),

c-SRS INTEGER (0..63),

groupOrSequenceHopping ENUMERATED { neither, groupHopping, sequenceHopping },

resourceTypePos ResourceTypePos,

sequenceId INTEGER (0.. 65535),

spatialRelationPos SpatialRelationPos OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PosSRSResource-Item-ExtIEs} } OPTIONAL

}

PosSRSResource-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PosSRSResource-List ::= SEQUENCE (SIZE (1..maxnoSRS-PosResources)) OF PosSRSResource-Item

PosSRSResourceSet-Item ::= SEQUENCE {

possrsResourceSetID INTEGER(0..15),

possRSResourceID-List PosSRSResourceID-List,

posresourceSetType PosResourceSetType,

iE-Extensions ProtocolExtensionContainer { { PosSRSResourceSet-Item-ExtIEs} } OPTIONAL

}

PosSRSResourceSet-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PosSRSResourceSet-List ::= SEQUENCE (SIZE (1..maxnoSRS-PosResourceSets)) OF PosSRSResourceSet-Item

PrimaryPathIndication ::= ENUMERATED {

true,

false,

...

}

Pre-emptionCapability ::= ENUMERATED {

shall-not-trigger-pre-emption,

may-trigger-pre-emption

}

Pre-emptionVulnerability ::= ENUMERATED {

not-pre-emptable,

pre-emptable

}

PriorityLevel ::= INTEGER { spare (0), highest (1), lowest (14), no-priority (15) } (0..15)

ProtectedEUTRAResourceIndication ::= OCTET STRING

Protected-EUTRA-Resources-Item ::= SEQUENCE {

spectrumSharingGroupID SpectrumSharingGroupID,

eUTRACells-List EUTRACells-List,

iE-Extensions ProtocolExtensionContainer { { Protected-EUTRA-Resources-ItemExtIEs } } OPTIONAL

}

Protected-EUTRA-Resources-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PRSConfiguration ::= SEQUENCE {

pRSResourceSet-List PRSResourceSet-List,

iE-Extensions ProtocolExtensionContainer { { PRSConfiguration-ExtIEs } } OPTIONAL

}

PRSConfiguration-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PRSInformationPos ::= SEQUENCE {

pRS-IDPos INTEGER(0..255),

pRS-Resource-Set-IDPos INTEGER(0..7),

pRS-Resource-IDPos INTEGER(0..63) OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PRSInformationPos-ExtIEs} } OPTIONAL

}

PRSInformationPos-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PRS-Measurement-Info-List ::= SEQUENCE (SIZE(1..maxFreqLayers)) OF PRS-Measurement-Info-List-Item

PRS-Measurement-Info-List-Item ::= SEQUENCE {

pointA INTEGER (0..3279165),

measPRSPeriodicity ENUMERATED {ms20, ms40, ms80, ms160, ...},

measPRSOffset INTEGER (0..159, ...),

measurementPRSLength ENUMERATED {ms1dot5, ms3, ms3dot5, ms4, ms5dot5, ms6, ms10, ms20},

iE-Extensions ProtocolExtensionContainer { { PRS-Measurement-Info-List-Item-ExtIEs} } OPTIONAL,

...

}

PRS-Measurement-Info-List-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Potential-SpCell-Item ::= SEQUENCE {

potential-SpCell-ID NRCGI ,

iE-Extensions ProtocolExtensionContainer { { Potential-SpCell-ItemExtIEs } } OPTIONAL,

...

}

Potential-SpCell-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PRSAngleList ::= SEQUENCE (SIZE(1.. maxnoofPRS-ResourcesPerSet)) OF PRSAngleItem

PRSAngleItem ::= SEQUENCE {

nR-PRS-Azimuth INTEGER (0..359),

nR-PRS-Azimuth-fine INTEGER (0..9),

nR-PRS-Elevation INTEGER (0..180),

nR-PRS-Elevation-fine INTEGER (0..9),

iE-Extensions ProtocolExtensionContainer { { PRSAngleItem-ItemExtIEs } } OPTIONAL

}

PRSAngleItem-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-PRS-Resource-ID CRITICALITY ignore EXTENSION PRS-Resource-ID PRESENCE optional },

...

}

PRSConfigRequestType ::= ENUMERATED {configure, off, ...}

PRSMuting::= SEQUENCE {

pRSMutingOption1 PRSMutingOption1 OPTIONAL,

pRSMutingOption2 PRSMutingOption2 OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PRSMuting-ExtIEs} } OPTIONAL

}

PRSMuting-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PRSMutingOption1 ::= SEQUENCE {

mutingPattern DL-PRSMutingPattern,

mutingBitRepetitionFactor ENUMERATED{rf1,rf2,rf4,rf8,...},

iE-Extensions ProtocolExtensionContainer { { PRSMutingOption1-ExtIEs} } OPTIONAL

}

PRSMutingOption1-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PRSMutingOption2 ::= SEQUENCE {

mutingPattern DL-PRSMutingPattern,

iE-Extensions ProtocolExtensionContainer { { PRSMutingOption2-ExtIEs} } OPTIONAL

}

PRSMutingOption2-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PRS-Resource-ID ::= INTEGER (0..63)

PRSResource-List::= SEQUENCE (SIZE (1..maxnoofPRSresources)) OF PRSResource-Item

PRSResource-Item ::= SEQUENCE {

pRSResourceID PRS-Resource-ID,

sequenceID INTEGER(0..4095),

rEOffset INTEGER(0..11,...),

resourceSlotOffset INTEGER(0..511),

resourceSymbolOffset INTEGER(0..12),

qCLInfo PRSResource-QCLInfo OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PRSResource-Item-ExtIEs} } OPTIONAL

}

PRSResource-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PRSResource-QCLInfo ::= CHOICE {

qCLSourceSSB PRSResource-QCLSourceSSB,

qCLSourcePRS PRSResource-QCLSourcePRS,

choice-extension ProtocolIE-SingleContainer { { PRSResource-QCLInfo-ExtIEs } }

}

PRSResource-QCLInfo-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

PRSResource-QCLSourceSSB ::= SEQUENCE {

pCI-NR INTEGER(0..1007),

sSB-Index SSB-Index OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PRSResource-QCLSourceSSB-ExtIEs} } OPTIONAL,

...

}

PRSResource-QCLSourceSSB-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PRSResource-QCLSourcePRS ::= SEQUENCE {

qCLSourcePRSResourceSetID PRS-Resource-Set-ID,

qCLSourcePRSResourceID PRS-Resource-ID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PRSResource-QCLSourcePRS-ExtIEs} } OPTIONAL

}

PRSResource-QCLSourcePRS-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PRS-Resource-Set-ID ::= INTEGER(0..7)

PRSResourceSet-List ::= SEQUENCE (SIZE (1.. maxnoofPRSresourceSets)) OF PRSResourceSet-Item

PRSResourceSet-Item ::= SEQUENCE {

pRSResourceSetID PRS-Resource-Set-ID,

subcarrierSpacing ENUMERATED{kHz15, kHz30, kHz60, kHz120, ...},

pRSbandwidth INTEGER(1..63),

startPRB INTEGER(0..2176),

pointA INTEGER (0..3279165),

combSize ENUMERATED{n2, n4, n6, n12, ...},

cPType ENUMERATED{normal, extended, ...},

resourceSetPeriodicity ENUMERATED{n4,n5,n8,n10,n16,n20,n32,n40,n64,n80,n160,n320,n640,n1280,n2560,n5120,n10240,n20480,n40960, n81920,...},

resourceSetSlotOffset INTEGER(0..81919,...),

resourceRepetitionFactor ENUMERATED{rf1,rf2,rf4,rf6,rf8,rf16,rf32,...},

resourceTimeGap ENUMERATED{tg1,tg2,tg4,tg8,tg16,tg32,...},

resourceNumberofSymbols ENUMERATED{n2,n4,n6,n12,...},

pRSMuting PRSMuting OPTIONAL,

pRSResourceTransmitPower INTEGER(-60..50),

pRSResource-List PRSResource-List,

iE-Extensions ProtocolExtensionContainer { { PRSResourceSet-Item-ExtIEs} } OPTIONAL

}

PRSResourceSet-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PRSTransmissionOffIndication ::= CHOICE {

pRSTransmissionOffPerTRP NULL,

pRSTransmissionOffPerResourceSet PRSTransmissionOffPerResourceSet,

pRSTransmissionOffPerResource PRSTransmissionOffPerResource,

choice-extension ProtocolIE-SingleContainer { { PRSTransmissionOffIndication-ExtIEs } }

}

PRSTransmissionOffIndication-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

PRSTransmissionOffPerResource ::= SEQUENCE (SIZE (1..maxnoofPRSresourceSets)) OF PRSTransmissionOffPerResource-Item

PRSTransmissionOffPerResource-Item ::= SEQUENCE {

pRSResourceSetID PRS-Resource-Set-ID,

pRSTransmissionOffIndicationPerResourceList SEQUENCE (SIZE(1.. maxnoofPRSresources)) OF PRSTransmissionOffIndicationPerResource-Item,

iE-Extensions ProtocolExtensionContainer { { PRSTransmissionOffPerResource-Item-ExtIEs } } OPTIONAL,

...

}

PRSTransmissionOffPerResource-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PRSTransmissionOffIndicationPerResource-Item ::= SEQUENCE {

pRSResourceID PRS-Resource-ID,

iE-Extensions ProtocolExtensionContainer { { PRSTransmissionOffIndicationPerResource-Item-ExtIEs } } OPTIONAL,

...

}

PRSTransmissionOffIndicationPerResource-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PRSTransmissionOffInformation ::= SEQUENCE {

pRSTransmissionOffIndication PRSTransmissionOffIndication,

iE-Extensions ProtocolExtensionContainer { { PRSTransmissionOffInformation-ExtIEs } } OPTIONAL,

...

}

PRSTransmissionOffInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PRSTransmissionOffPerResourceSet ::= SEQUENCE (SIZE (1..maxnoofPRSresourceSets)) OF PRSTransmissionOffPerResourceSet-Item

PRSTransmissionOffPerResourceSet-Item ::= SEQUENCE {

pRSResourceSetID PRS-Resource-Set-ID,

iE-Extensions ProtocolExtensionContainer { { PRSTransmissionOffPerResourceSet-Item-ExtIEs } } OPTIONAL,

...

}

PRSTransmissionOffPerResourceSet-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PWS-Failed-NR-CGI-Item ::= SEQUENCE {

nRCGI NRCGI,

numberOfBroadcasts NumberOfBroadcasts,

iE-Extensions ProtocolExtensionContainer { { PWS-Failed-NR-CGI-ItemExtIEs } } OPTIONAL,

...

}

PWS-Failed-NR-CGI-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PWSSystemInformation ::= SEQUENCE {

sIBtype SIBType-PWS,

sIBmessage OCTET STRING,

iE-Extensions ProtocolExtensionContainer { { PWSSystemInformationExtIEs } } OPTIONAL,

...

}

PWSSystemInformationExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ID id-NotificationInformation CRITICALITY ignore EXTENSION NotificationInformation PRESENCE optional}|

{ ID id-AdditionalSIBMessageList CRITICALITY reject EXTENSION AdditionalSIBMessageList PRESENCE optional},

...

}

PrivacyIndicator ::= ENUMERATED {immediate-MDT, logged-MDT, ...}

PRS-ID ::= INTEGER(0..255)

PRSTRPList ::= SEQUENCE (SIZE(1.. maxnoofTRPs)) OF PRSTRPItem

PRSTRPItem ::= SEQUENCE {

tRP-ID TRPID,

requestedDLPRSTransmissionCharacteristics RequestedDLPRSTransmissionCharacteristics OPTIONAL,

-- The IE shall be present if the PRS Configuration Request Type IE is set to “configure” --

pRSTransmissionOffInformation PRSTransmissionOffInformation OPTIONAL,

-- The IE shall be present if the PRS Configuration Request Type IE is set to “off” --

iE-Extensions ProtocolExtensionContainer { { PRSTRPItem-ExtIEs} } OPTIONAL,

...

}

PRSTRPItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RequestedDLPRSTransmissionCharacteristics ::= SEQUENCE {

requestedDLPRSResourceSet-List RequestedDLPRSResourceSet-List,

numberofFrequencyLayers INTEGER(1..4) OPTIONAL,

startTimeAndDuration StartTimeAndDuration OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { RequestedDLPRSTransmissionCharacteristics-ExtIEs} } OPTIONAL,

...

}

RequestedDLPRSTransmissionCharacteristics-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RequestedDLPRSResourceSet-List ::= SEQUENCE (SIZE (1..maxnoofPRSresourceSets)) OF RequestedDLPRSResourceSet-Item

RequestedDLPRSResourceSet-Item ::= SEQUENCE {

pRSbandwidth INTEGER(1..63),

combSize ENUMERATED{n2, n4, n6, n12, ...} OPTIONAL,

resourceSetPeriodicity ENUMERATED{n4,n5,n8,n10,n16,n20,n32,n40,n64,n80,n160,n320,n640,n1280,n2560,n5120,n10240,n20480,n40960, n81920,...} OPTIONAL,

resourceRepetitionFactor ENUMERATED{rf1,rf2,rf4,rf6,rf8,rf16,rf32,...} OPTIONAL,

resourceNumberofSymbols ENUMERATED{n2,n4,n6,n12,...} OPTIONAL,

requestedDLPRSResource-List RequestedDLPRSResource-List OPTIONAL,

resourceSetStartTimeAndDuration StartTimeAndDuration OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { RequestedDLPRSResourceSet-Item-ExtIEs} } OPTIONAL,

...

}

RequestedDLPRSResourceSet-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RequestedDLPRSResource-List::= SEQUENCE (SIZE (1..maxnoofPRSresources)) OF RequestedDLPRSResource-Item

RequestedDLPRSResource-Item ::= SEQUENCE {

qCLInfo PRSResource-QCLInfo OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { RequestedDLPRSResource-Item-ExtIEs} } OPTIONAL,

...

}

RequestedDLPRSResource-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

PRSTransmissionTRPList ::= SEQUENCE (SIZE(1.. maxnoofTRPs)) OF PRSTransmissionTRPItem

PRSTransmissionTRPItem ::= SEQUENCE {

tRP-ID TRPID,

pRSConfiguration PRSConfiguration,

iE-Extensions ProtocolExtensionContainer { { PRSTransmissionTRPItem-ExtIEs} } OPTIONAL,

...

}

PRSTransmissionTRPItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

-- Q

QCI ::= INTEGER (0..255)

QoEInformation ::= SEQUENCE {

qoEInformationList QoEInformationList,

iE-Extensions ProtocolExtensionContainer { { QoEInformation-ExtIEs} } OPTIONAL

}

QoEInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

QoEInformationList ::= SEQUENCE (SIZE(1.. maxnoofQoEInformation)) OF QoEInformationList-Item

QoEInformationList-Item ::= SEQUENCE {

qoEMetrics QoEMetrics OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { QoEInformationList-Item-ExtIEs} } OPTIONAL

}

QoEInformationList-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

QoEMetrics ::= SEQUENCE {

appLayerBufferLevelList AppLayerBufferLevelList OPTIONAL,

playoutDelayForMediaStartup PlayoutDelayForMediaStartup OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { QoEMetrics-ExtIEs} } OPTIONAL,

...

}

QoEMetrics-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

QoS-Characteristics ::= CHOICE {

non-Dynamic-5QI NonDynamic5QIDescriptor,

dynamic-5QI Dynamic5QIDescriptor,

choice-extension ProtocolIE-SingleContainer { { QoS-Characteristics-ExtIEs } }

}

QoS-Characteristics-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

QoSFlowIdentifier ::= INTEGER (0..63)

QoSFlowLevelQoSParameters ::= SEQUENCE {

qoS-Characteristics QoS-Characteristics,

nGRANallocationRetentionPriority NGRANAllocationAndRetentionPriority,

gBR-QoS-Flow-Information GBR-QoSFlowInformation OPTIONAL,

reflective-QoS-Attribute ENUMERATED {subject-to, ...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { QoSFlowLevelQoSParameters-ExtIEs } } OPTIONAL

}

QoSFlowLevelQoSParameters-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-PDUSessionID CRITICALITY ignore EXTENSION PDUSessionID PRESENCE optional}|

{ ID id-ULPDUSessionAggregateMaximumBitRate CRITICALITY ignore EXTENSION BitRate PRESENCE optional}|

{ ID id-QosMonitoringRequest CRITICALITY ignore EXTENSION QosMonitoringRequest PRESENCE optional}|

{ ID id-PDCPTerminatingNodeDLTNLAddrInfo CRITICALITY ignore EXTENSION TransportLayerAddress PRESENCE optional },

...

}

QoSFlowMappingIndication ::= ENUMERATED {ul,dl,...}

QoSInformation ::= CHOICE {

eUTRANQoS EUTRANQoS,

choice-extension ProtocolIE-SingleContainer { { QoSInformation-ExtIEs} }

}

QoSInformation-ExtIEs F1AP-PROTOCOL-IES ::= {

{ ID id-DRB-Information CRITICALITY ignore TYPE DRB-Information PRESENCE mandatory},

...

}

QosMonitoringRequest ::= ENUMERATED {ul, dl, both, ..., stop}

QoSParaSetIndex ::= INTEGER (1..8, ...)

QoSParaSetNotifyIndex ::= INTEGER (0..8, ...)

-- R

RACH-Config-Common ::= OCTET STRING

RACH-Config-Common-IAB ::= OCTET STRING

RACHReportContainer::= OCTET STRING

RACHReportInformationList ::= SEQUENCE (SIZE(1.. maxnoofRACHReports)) OF RACHReportInformationItem

RACHReportInformationItem ::= SEQUENCE {

rACHReportContainer RACHReportContainer,

uEAssitantIdentifier GNB-DU-UE-F1AP-ID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { RACHReportInformationItem-ExtIEs} } OPTIONAL,

...

}

RACHReportInformationItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RadioResourceStatus ::= SEQUENCE {

sSBAreaRadioResourceStatusList SSBAreaRadioResourceStatusList,

iE-Extensions ProtocolExtensionContainer { { RadioResourceStatus-ExtIEs} } OPTIONAL

}

RadioResourceStatus-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-SliceRadioResourceStatus CRITICALITY ignore EXTENSION SliceRadioResourceStatus PRESENCE optional }|

{ ID id-MIMOPRBusageInformation CRITICALITY ignore EXTENSION MIMOPRBusageInformation PRESENCE optional },

...

}

MIMOPRBusageInformation ::= SEQUENCE {

dl-GBR-PRB-usage-for-MIMO INTEGER (0..100),

ul-GBR-PRB-usage-for-MIMO INTEGER (0..100),

dl-non-GBR-PRB-usage-for-MIMO INTEGER (0..100),

ul-non-GBR-PRB-usage-for-MIMO INTEGER (0..100),

dl-Total-PRB-usage-for-MIMO INTEGER (0..100),

ul-Total-PRB-usage-for-MIMO INTEGER (0..100),

iE-Extensions ProtocolExtensionContainer { { MIMOPRBusageInformation-ExtIEs} } OPTIONAL,

...

}

MIMOPRBusageInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RANAC ::= INTEGER (0..255)

RAN-MeasurementID ::= INTEGER (1.. 65536, ...)

RAN-UE-MeasurementID ::= INTEGER (1.. 256, ...)

RAN-UE-PDC-MeasID ::= INTEGER (1..16, ...)

RANUEID ::= OCTET STRING (SIZE (8))

RANUEPagingIdentity ::= SEQUENCE {

iRNTI BIT STRING (SIZE(40)),

iE-Extensions ProtocolExtensionContainer { { RANUEPagingIdentity-ExtIEs } } OPTIONAL}

RANUEPagingIdentity-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RAT-FrequencyPriorityInformation::= CHOICE {

eNDC SubscriberProfileIDforRFP,

nGRAN RAT-FrequencySelectionPriority,

choice-extension ProtocolIE-SingleContainer { { RAT-FrequencyPriorityInformation-ExtIEs} }

}

RAT-FrequencyPriorityInformation-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

RAT-FrequencySelectionPriority::= INTEGER (1.. 256, ...)

RBSetConfiguration ::= SEQUENCE {

subcarrierSpacing SubcarrierSpacing,

rBSetSize RBSetSize,

nUmberRBsets INTEGER(1..maxnoofRBsetsPerCell),

iE-Extensions ProtocolExtensionContainer { { RBSetConfiguration-ExtIEs} } OPTIONAL

}

RBSetConfiguration-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RBSetSize ::= ENUMERATED { rb2, rb4, rb8, rb16, rb32, rb64}

Re-routingEnableIndicator ::= ENUMERATED {

true,

false,

...

}

Redcap-Bcast-Information ::= BIT STRING(SIZE(8))

RedCapIndication ::= ENUMERATED {true, ...}

Reestablishment-Indication ::= ENUMERATED {

reestablished,

...

}

ReferencePoint ::= CHOICE {

coordinateID CoordinateID,

referencePointCoordinate AccessPointPosition,

referencePointCoordinateHA NGRANHighAccuracyAccessPointPosition,

choice-Extension ProtocolIE-SingleContainer { { ReferencePoint-ExtIEs} }

}

ReferencePoint-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

ReferenceSFN ::= INTEGER (0..1023)

ReferenceSignal ::= CHOICE {

nZP-CSI-RS NZP-CSI-RS-ResourceID,

sSB SSB,

sRS SRSResourceID,

positioningSRS SRSPosResourceID,

dL-PRS DL-PRS,

choice-extension ProtocolIE-SingleContainer {{ReferenceSignal-ExtIEs }}

}

ReferenceSignal-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

RelativeCartesianLocation ::= SEQUENCE {

xYZunit ENUMERATED {mm, cm, dm, ...},

xvalue INTEGER (-65536..65535),

yvalue INTEGER (-65536..65535),

zvalue INTEGER (-32768..32767),

locationUncertainty LocationUncertainty,

iE-Extensions ProtocolExtensionContainer { { RelativeCartesianLocation-ExtIEs} } OPTIONAL

}

RelativeCartesianLocation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RelativeGeodeticLocation ::= SEQUENCE {

milli-Arc-SecondUnits ENUMERATED {zerodot03, zerodot3, three, ...},

heightUnits ENUMERATED {mm, cm, m, ...},

deltaLatitude INTEGER (-1024.. 1023),

deltaLongitude INTEGER (-1024.. 1023),

deltaHeight INTEGER (-1024.. 1023),

locationUncertainty LocationUncertainty,

iE-extensions ProtocolExtensionContainer {{RelativeGeodeticLocation-ExtIEs }} OPTIONAL

}

RelativeGeodeticLocation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RemoteUELocalID ::= INTEGER (0..255, ...)

ReferenceTime ::= OCTET STRING

RegistrationRequest ::= ENUMERATED{start, stop, add, ...}

ReportCharacteristics ::= BIT STRING (SIZE(32))

ReportingPeriodicity ::= ENUMERATED{ms500, ms1000, ms2000, ms5000, ms10000, ...}

RequestedBandCombinationIndex ::= OCTET STRING

RequestedFeatureSetEntryIndex ::= OCTET STRING

RequestedP-MaxFR2 ::= OCTET STRING

Requested-PDCCH-BlindDetectionSCG ::= OCTET STRING

RequestedSRSTransmissionCharacteristics ::= SEQUENCE {

numberOfTransmissions INTEGER (0..500, ...) OPTIONAL,

-- The IE shall be present if the Resource Type IE is set to “periodic” --

resourceType ENUMERATED {periodic, semi-persistent, aperiodic,...},

bandwidthSRS BandwidthSRS,

sRSResourceSetList SRSResourceSetList OPTIONAL,

sSBInformation SSBInformation OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { RequestedSRSTransmissionCharacteristics-ExtIEs} } OPTIONAL

}

RequestedSRSTransmissionCharacteristics-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-SrsFrequency CRITICALITY ignore EXTENSION SrsFrequency PRESENCE optional },

...

}

RequestType ::= ENUMERATED {offer, execution, ...}

ResourceCoordinationEUTRACellInfo ::= SEQUENCE {

eUTRA-Mode-Info EUTRA-Coex-Mode-Info,

eUTRA-PRACH-Configuration EUTRA-PRACH-Configuration,

iE-Extensions ProtocolExtensionContainer { { ResourceCoordinationEUTRACellInfo-ExtIEs } } OPTIONAL,

...

}

ResourceCoordinationEUTRACellInfo-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ID id-IgnorePRACHConfiguration CRITICALITY reject EXTENSION IgnorePRACHConfiguration PRESENCE optional },

...

}

ResourceCoordinationTransferInformation ::= SEQUENCE {

meNB-Cell-ID EUTRA-Cell-ID,

resourceCoordinationEUTRACellInfo ResourceCoordinationEUTRACellInfo OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { ResourceCoordinationTransferInformation-ExtIEs } } OPTIONAL,

...

}

ResourceCoordinationTransferInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

ResourceCoordinationTransferContainer ::= OCTET STRING

ResourceSetType ::= CHOICE {

periodic ResourceSetTypePeriodic,

semi-persistent ResourceSetTypeSemi-persistent,

aperiodic ResourceSetTypeAperiodic,

choice-extension ProtocolIE-SingleContainer {{ ResourceSetType-ExtIEs }}

}

ResourceSetType-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

ResourceSetTypePeriodic ::= SEQUENCE {

periodicSet ENUMERATED{true, ...},

iE-Extensions ProtocolExtensionContainer { { ResourceSetTypePeriodic-ExtIEs} } OPTIONAL

}

ResourceSetTypePeriodic-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

ResourceSetTypeSemi-persistent ::= SEQUENCE {

semi-persistentSet ENUMERATED{true, ...},

iE-Extensions ProtocolExtensionContainer { { ResourceSetTypeSemi-persistent-ExtIEs} } OPTIONAL

}

ResourceSetTypeSemi-persistent-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

ResourceSetTypeAperiodic ::= SEQUENCE {

sRSResourceTrigger-List INTEGER(1..3),

slotoffset INTEGER(0..32),

iE-Extensions ProtocolExtensionContainer { { ResourceSetTypeAperiodic-ExtIEs} } OPTIONAL

}

ResourceSetTypeAperiodic-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RepetitionFactorExtended ::= ENUMERATED {n3, n5, n6, n7, n8, n10, n12, n14, ...}

RepetitionPeriod ::= INTEGER (0..131071, ...)

ReportingRequestType ::= SEQUENCE {

eventType EventType,

reportingPeriodicityValue ReportingPeriodicityValue OPTIONAL,

-- C-ifEventTypeisPeriodic: This IE shall be present if the Event Type IE is set to "periodic" in the Event Type IE.

iE-Extensions ProtocolExtensionContainer { {ReportingRequestType-ExtIEs} } OPTIONAL

}

ReportingRequestType-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

ResourceType ::= CHOICE {

periodic ResourceTypePeriodic,

semi-persistent ResourceTypeSemi-persistent,

aperiodic ResourceTypeAperiodic,

choice-extension ProtocolIE-SingleContainer {{ ResourceType-ExtIEs }}

}

ResourceType-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

ResourceTypePeriodic ::= SEQUENCE {

periodicity ENUMERATED{slot1, slot2, slot4, slot5, slot8, slot10, slot16, slot20, slot32, slot40, slot64, slot80, slot160, slot320, slot640, slot1280, slot2560, ...},

offset INTEGER(0..2559, ...),

iE-Extensions ProtocolExtensionContainer { { ResourceTypePeriodic-ExtIEs} } OPTIONAL

}

ResourceTypePeriodic-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

ResourceTypeSemi-persistent ::= SEQUENCE {

periodicity ENUMERATED{slot1, slot2, slot4, slot5, slot8, slot10, slot16, slot20, slot32, slot40, slot64, slot80, slot160, slot320, slot640, slot1280, slot2560, ...},

offset INTEGER(0..2559, ...),

iE-Extensions ProtocolExtensionContainer { { ResourceTypeSemi-persistent-ExtIEs} } OPTIONAL

}

ResourceTypeSemi-persistent-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

ResourceTypeAperiodic ::= SEQUENCE {

aperiodicResourceType ENUMERATED{true, ...},

iE-Extensions ProtocolExtensionContainer { { ResourceTypeAperiodic-ExtIEs} } OPTIONAL

}

ResourceTypeAperiodic-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

ResourceTypePos ::= CHOICE {

periodic ResourceTypePeriodicPos,

semi-persistent ResourceTypeSemi-persistentPos,

aperiodic ResourceTypeAperiodicPos,

choice-extension ProtocolIE-SingleContainer {{ ResourceTypePos-ExtIEs }}

}

ResourceTypePos-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

ResourceTypePeriodicPos ::= SEQUENCE {

periodicity ENUMERATED{slot1, slot2, slot4, slot5, slot8, slot10, slot16, slot20, slot32, slot40, slot64, slot80, slot160, slot320, slot640, slot1280, slot2560, slot5120, slot10240, slot40960, slot81920, ..., slot128, slot256, slot512, slot20480},

offset INTEGER(0..81919, ...),

iE-Extensions ProtocolExtensionContainer { { ResourceTypePeriodicPos-ExtIEs} } OPTIONAL

}

ResourceTypePeriodicPos-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

ResourceTypeSemi-persistentPos ::= SEQUENCE {

periodicity ENUMERATED{slot1, slot2, slot4, slot5, slot8, slot10, slot16, slot20, slot32, slot40, slot64, slot80, slot160, slot320, slot640, slot1280, slot2560, slot5120, slot10240, slot40960, slot81920, ..., slot128, slot256, slot512, slot20480},

offset INTEGER(0..81919, ...),

iE-Extensions ProtocolExtensionContainer { { ResourceTypeSemi-persistentPos-ExtIEs} } OPTIONAL

}

ResourceTypeSemi-persistentPos-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

ResourceTypeAperiodicPos ::= SEQUENCE {

slotOffset INTEGER (0..32),

iE-Extensions ProtocolExtensionContainer { { ResourceTypeAperiodicPos-ExtIEs} } OPTIONAL

}

ResourceTypeAperiodicPos-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RLCDuplicationInformation ::= SEQUENCE {

rLCDuplicationStateList RLCDuplicationStateList,

primaryPathIndication PrimaryPathIndication OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {RLCDuplicationInformation-ExtIEs} } OPTIONAL

}

RLCDuplicationInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RLCDuplicationStateList ::= SEQUENCE (SIZE(1..maxnoofRLCDuplicationState)) OF RLCDuplicationState-Item

RLCDuplicationState-Item ::=SEQUENCE {

duplicationState DuplicationState,

iE-Extensions ProtocolExtensionContainer { {RLCDuplicationState-Item-ExtIEs } } OPTIONAL,

...

}

RLCDuplicationState-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RLCFailureIndication ::= SEQUENCE {

assocatedLCID LCID,

iE-Extensions ProtocolExtensionContainer { {RLCFailureIndication-ExtIEs} } OPTIONAL

}

RLCFailureIndication-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RLCMode ::= ENUMERATED {

rlc-am,

rlc-um-bidirectional,

rlc-um-unidirectional-ul,

rlc-um-unidirectional-dl,

...

}

RLC-Status ::= SEQUENCE {

reestablishment-Indication Reestablishment-Indication,

iE-Extensions ProtocolExtensionContainer { { RLC-Status-ExtIEs } } OPTIONAL,

...

}

RLC-Status-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RLFReportInformationList ::= SEQUENCE (SIZE(1.. maxnoofRLFReports)) OF RLFReportInformationItem

RLFReportInformationItem ::= SEQUENCE {

nRUERLFReportContainer NRUERLFReportContainer,

uEAssitantIdentifier GNB-DU-UE-F1AP-ID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { RLFReportInformationItem-ExtIEs} } OPTIONAL,

...

}

RLFReportInformationItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RIMRSDetectionStatus ::= ENUMERATED {rs-detected, rs-disappeared, ...}

RRCContainer ::= OCTET STRING

RRCContainer-RRCSetupComplete ::= OCTET STRING

RRCDeliveryStatus ::= SEQUENCE {

delivery-status PDCP-SN,

triggering-message PDCP-SN,

iE-Extensions ProtocolExtensionContainer { { RRCDeliveryStatus-ExtIEs } } OPTIONAL}

RRCDeliveryStatus-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RRCDeliveryStatusRequest ::= ENUMERATED {true, ...}

RRCReconfigurationCompleteIndicator ::= ENUMERATED {

true,

...,

failure

}

RRC-Version ::= SEQUENCE {

latest-RRC-Version BIT STRING (SIZE(3)),

iE-Extensions ProtocolExtensionContainer { { RRC-Version-ExtIEs } } OPTIONAL}

RRC-Version-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ID id-latest-RRC-Version-Enhanced CRITICALITY ignore EXTENSION OCTET STRING (SIZE(3)) PRESENCE optional },

...

}

RoutingID ::= OCTET STRING

ResponseTime ::= SEQUENCE {

time INTEGER (1..128,...),

timeUnit ENUMERATED {second, ten-seconds, ten-milliseconds,...},

iE-Extensions ProtocolExtensionContainer { { ResponseTime-ExtIEs} } OPTIONAL,

...

}

ResponseTime-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RxTxTimingErrorMargin ::= ENUMERATED {tc0dot5, tc1, tc2, tc4, tc8, tc12, tc16, tc20, tc24, tc32, tc40, tc48, tc64, tc80, tc96, tc128, ...}

-- S

SCell-FailedtoSetup-Item ::= SEQUENCE {

sCell-ID NRCGI ,

cause Cause OPTIONAL ,

iE-Extensions ProtocolExtensionContainer { { SCell-FailedtoSetup-ItemExtIEs } } OPTIONAL,

...

}

SCell-FailedtoSetup-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SCell-FailedtoSetupMod-Item ::= SEQUENCE {

sCell-ID NRCGI ,

cause Cause OPTIONAL ,

iE-Extensions ProtocolExtensionContainer { { SCell-FailedtoSetupMod-ItemExtIEs } } OPTIONAL,

...

}

SCell-FailedtoSetupMod-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SCell-ToBeRemoved-Item ::= SEQUENCE {

sCell-ID NRCGI ,

iE-Extensions ProtocolExtensionContainer { { SCell-ToBeRemoved-ItemExtIEs } } OPTIONAL,

...

}

SCell-ToBeRemoved-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SCell-ToBeSetup-Item ::= SEQUENCE {

sCell-ID NRCGI ,

sCellIndex SCellIndex,

sCellULConfigured CellULConfigured OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { SCell-ToBeSetup-ItemExtIEs } } OPTIONAL,

...

}

SCell-ToBeSetup-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-ServingCellMO CRITICALITY ignore EXTENSION ServingCellMO PRESENCE optional },

...

}

SCell-ToBeSetupMod-Item ::= SEQUENCE {

sCell-ID NRCGI ,

sCellIndex SCellIndex,

sCellULConfigured CellULConfigured OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { SCell-ToBeSetupMod-ItemExtIEs } } OPTIONAL,

...

}

SCell-ToBeSetupMod-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-ServingCellMO CRITICALITY ignore EXTENSION ServingCellMO PRESENCE optional },

...

}

SCellIndex ::=INTEGER (1..31, ...)

SCGActivationRequest ::= ENUMERATED {activate-scg, deactivate-scg, ...}

SCGActivationStatus ::= ENUMERATED {scg-activated, scg-deactivated, ...}

SCGIndicator ::= ENUMERATED{released, ...}

SCS-480 ::= INTEGER(0..319)

SCS-960 ::= INTEGER(0..639)

SCS-SpecificCarrier ::= SEQUENCE {

offsetToCarrier INTEGER (0..2199,...),

subcarrierSpacing ENUMERATED {kHz15, kHz30, kHz60, kHz120,..., kHz480, kHz960},

carrierBandwidth INTEGER (1..275,...),

iE-Extensions ProtocolExtensionContainer { { SCS-SpecificCarrier-ExtIEs } } OPTIONAL

}

SCS-SpecificCarrier-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SDTBearerConfigurationQueryIndication ::= ENUMERATED {true, ...}

SDTBearerConfigurationInfo ::= SEQUENCE {

sDTBearerConfig-List SDTBearerConfig-List,

iE-Extensions ProtocolExtensionContainer { { SDTBearerConfigurationInfo-ExtIEs } } OPTIONAL

}

SDTBearerConfigurationInfo-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SDTBearerConfig-List ::= SEQUENCE (SIZE(1..maxnoofSDTBearers)) OF SDTBearerConfig-List-Item

SDTBearerConfig-List-Item ::= SEQUENCE{

sDTBearerType SDTBearerType,

sDTRLCBearerConfiguration SDTRLCBearerConfiguration,

iE-Extensions ProtocolExtensionContainer {{ SDTBearerConfig-List-Item-ExtIEs}} OPTIONAL

}

SDTBearerConfig-List-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SDTBearerType ::= CHOICE {

sRB SRBID,

dRB DRBID,

choice-extension ProtocolIE-SingleContainer {{ SDTBearerType-ExtIEs }}

}

SDTBearerType-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

SDT-MAC-PHY-CG-Config ::= OCTET STRING

SDTInformation ::= SEQUENCE {

sdtIndicator ENUMERATED {true,...},

sdtAssistantInformation ENUMERATED {singlepacket, multiplepackets,...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { SDTInformation-ExtIEs } } OPTIONAL

}

SDTInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SDTRLCBearerConfiguration ::= OCTET STRING

SDT-Termination-Request ::= ENUMERATED {radio-link-problem, normal, ...}

Search-window-information ::= SEQUENCE {

expectedPropagationDelay INTEGER (-3841..3841,...),

delayUncertainty INTEGER (1..246,...),

iE-Extensions ProtocolExtensionContainer { { Search-window-information-ExtIEs } } OPTIONAL

}

Search-window-information-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SerialNumber ::= BIT STRING (SIZE (16))

SIBType-PWS ::=INTEGER (6..8, ...)

SelectedBandCombinationIndex ::= OCTET STRING

SelectedFeatureSetEntryIndex ::= OCTET STRING

CG-ConfigInfo ::= OCTET STRING

ServCellInfoList ::= OCTET STRING

ServCellIndex ::= INTEGER (0..31, ...)

ServingCellMO ::= INTEGER (1..64, ...)

ServingCellMO-List-Item ::= SEQUENCE {

servingCellMO ServingCellMO,

sSB-Frequency INTEGER (0..3279165),

iE-Extensions ProtocolExtensionContainer { { ServingCellMO-List-Item-ExtIEs } } OPTIONAL

}

ServingCellMO-List-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

ServingCellMO-encoded-in-CGC-List ::= SEQUENCE (SIZE(1.. maxNrofBWPs)) OF ServingCellMO-encoded-in-CGC-Item

ServingCellMO-encoded-in-CGC-Item ::= SEQUENCE {

servingCellMO ServingCellMO,

iE-Extensions ProtocolExtensionContainer { { ServingCellMO-encoded-in-CGC-Item-ExtIEs } } OPTIONAL,

...

}

ServingCellMO-encoded-in-CGC-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Served-Cell-Information ::= SEQUENCE {

nRCGI NRCGI,

nRPCI NRPCI,

fiveGS-TAC FiveGS-TAC OPTIONAL,

configured-EPS-TAC Configured-EPS-TAC OPTIONAL,

servedPLMNs ServedPLMNs-List,

nR-Mode-Info NR-Mode-Info,

measurementTimingConfiguration OCTET STRING,

iE-Extensions ProtocolExtensionContainer { {Served-Cell-Information-ExtIEs} } OPTIONAL,

...

}

Served-Cell-Information-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-RANAC CRITICALITY ignore EXTENSION RANAC PRESENCE optional }|

{ ID id-ExtendedServedPLMNs-List CRITICALITY ignore EXTENSION ExtendedServedPLMNs-List PRESENCE optional }|

{ ID id-Cell-Direction CRITICALITY ignore EXTENSION Cell-Direction PRESENCE optional }|

{ ID id-BPLMN-ID-Info-List CRITICALITY ignore EXTENSION BPLMN-ID-Info-List PRESENCE optional }|

{ ID id-Cell-Type CRITICALITY ignore EXTENSION CellType PRESENCE optional}|

{ ID id-ConfiguredTACIndication CRITICALITY ignore EXTENSION ConfiguredTACIndication PRESENCE optional }|

{ ID id-AggressorgNBSetID CRITICALITY ignore EXTENSION AggressorgNBSetID PRESENCE optional}|

{ ID id-VictimgNBSetID CRITICALITY ignore EXTENSION VictimgNBSetID PRESENCE optional}|

{ ID id-IAB-Info-IAB-DU CRITICALITY ignore EXTENSION IAB-Info-IAB-DU PRESENCE optional}|

{ ID id-SSB-PositionsInBurst CRITICALITY ignore EXTENSION SSB-PositionsInBurst PRESENCE optional }|

{ ID id-NRPRACHConfig CRITICALITY ignore EXTENSION NRPRACHConfig PRESENCE optional }|

{ ID id-SFN-Offset CRITICALITY ignore EXTENSION SFN-Offset PRESENCE optional }|

{ ID id-NPNBroadcastInformation CRITICALITY reject EXTENSION NPNBroadcastInformation PRESENCE optional }|

{ ID id-Supported-MBS-FSA-ID-List CRITICALITY ignore EXTENSION Supported-MBS-FSA-ID-List PRESENCE optional }|

{ ID id-Redcap-Bcast-Information CRITICALITY ignore EXTENSION Redcap-Bcast-Information PRESENCE optional },

...

}

Serving-Cells-List ::= SEQUENCE (SIZE(1..maxnoofServingCells)) OF Serving-Cells-List-Item

Serving-Cells-List-Item ::= SEQUENCE{

nRCGI NRCGI,

iAB-MT-Cell-NA-Resource-Configuration-Mode-Info IAB-MT-Cell-NA-Resource-Configuration-Mode-Info OPTIONAL,

iE-Extensions ProtocolExtensionContainer {{Serving-Cells-List-Item-ExtIEs}} OPTIONAL

}

Serving-Cells-List-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Supported-MBS-FSA-ID-List::= SEQUENCE (SIZE(1.. maxnoofMBSFSAs)) OF MBS-FrequencySelectionArea-Identity

MBS-FrequencySelectionArea-Identity::= OCTET STRING (SIZE(3))

SFN-Offset ::= SEQUENCE {

sFN-Time-Offset BIT STRING (SIZE(24)),

iE-Extensions ProtocolExtensionContainer { {SFN-Offset-ExtIEs} } OPTIONAL,

...

}

SFN-Offset-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Served-Cells-To-Add-Item ::= SEQUENCE {

served-Cell-Information Served-Cell-Information,

gNB-DU-System-Information GNB-DU-System-Information OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Served-Cells-To-Add-ItemExtIEs} } OPTIONAL,

...

}

Served-Cells-To-Add-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Served-Cells-To-Delete-Item ::= SEQUENCE {

oldNRCGI NRCGI ,

iE-Extensions ProtocolExtensionContainer { { Served-Cells-To-Delete-ItemExtIEs } } OPTIONAL,

...

}

Served-Cells-To-Delete-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Served-Cells-To-Modify-Item ::= SEQUENCE {

oldNRCGI NRCGI ,

served-Cell-Information Served-Cell-Information ,

gNB-DU-System-Information GNB-DU-System-Information OPTIONAL ,

iE-Extensions ProtocolExtensionContainer { { Served-Cells-To-Modify-ItemExtIEs } } OPTIONAL,

...

}

Served-Cells-To-Modify-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Served-EUTRA-Cells-Information::= SEQUENCE {

eUTRA-Mode-Info EUTRA-Mode-Info,

protectedEUTRAResourceIndication ProtectedEUTRAResourceIndication,

iE-Extensions ProtocolExtensionContainer { {Served-EUTRA-Cell-Information-ExtIEs} } OPTIONAL,

...

}

Served-EUTRA-Cell-Information-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Service-State ::= ENUMERATED {

in-service,

out-of-service,

...

}

Service-Status ::= SEQUENCE {

service-state Service-State,

switchingOffOngoing ENUMERATED {true, ...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Service-Status-ExtIEs } } OPTIONAL,

...

}

Service-Status-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RelativeTime1900 ::= BIT STRING (SIZE (64))

ShortDRXCycleLength ::= ENUMERATED {ms2, ms3, ms4, ms5, ms6, ms7, ms8, ms10, ms14, ms16, ms20, ms30, ms32, ms35, ms40, ms64, ms80, ms128, ms160, ms256, ms320, ms512, ms640, ...}

ShortDRXCycleTimer ::= INTEGER (1..16)

SIB1-message ::= OCTET STRING

SIB10-message ::= OCTET STRING

SIB12-message ::= OCTET STRING

SIB13-message ::= OCTET STRING

SIB14-message ::= OCTET STRING

SIB15-message ::= OCTET STRING

SIB17-message ::= OCTET STRING

SIB20-message ::= OCTET STRING

SItype ::= INTEGER (1..32, ...)

SItype-List ::= SEQUENCE (SIZE(1.. maxnoofSITypes)) OF SItype-Item

SItype-Item ::= SEQUENCE {

sItype SItype ,

iE-Extensions ProtocolExtensionContainer { { SItype-ItemExtIEs } } OPTIONAL

}

SItype-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SibtypetobeupdatedListItem ::= SEQUENCE {

sIBtype INTEGER (2..32,...),

sIBmessage OCTET STRING,

valueTag INTEGER (0..31,...),

iE-Extensions ProtocolExtensionContainer { { SibtypetobeupdatedListItem-ExtIEs } } OPTIONAL,

...

}

SibtypetobeupdatedListItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ID id-areaScope CRITICALITY ignore EXTENSION AreaScope PRESENCE optional},

...

}

SidelinkRelayConfiguration ::= SEQUENCE {

gNB-DU-UE-F1APIDofRelayUE GNB-DU-UE-F1AP-ID,

remoteUELocalID RemoteUELocalID,

sidelinkConfigurationContainer SidelinkConfigurationContainer OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { SidelinkRelayConfiguration-ExtIEs } } OPTIONAL,

...

}

SidelinkRelayConfiguration-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SidelinkConfigurationContainer ::= OCTET STRING

SLDRBID ::= INTEGER (1..512, ...)

SLDRBInformation ::= SEQUENCE {

sLDRB-QoS PC5QoSParameters,

flowsMappedToSLDRB-List FlowsMappedToSLDRB-List,

...

}

SLDRBs-FailedToBeModified-Item ::= SEQUENCE {

sLDRBID SLDRBID ,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { SLDRBs-FailedToBeModified-ItemExtIEs } } OPTIONAL

}

SLDRBs-FailedToBeModified-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SLDRBs-FailedToBeSetup-Item ::= SEQUENCE {

sLDRBID SLDRBID,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { SLDRBs-FailedToBeSetup-ItemExtIEs } } OPTIONAL

}

SLDRBs-FailedToBeSetup-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SLDRBs-FailedToBeSetupMod-Item ::= SEQUENCE {

sLDRBID SLDRBID ,

cause Cause OPTIONAL ,

iE-Extensions ProtocolExtensionContainer { { SLDRBs-FailedToBeSetupMod-ItemExtIEs } } OPTIONAL

}

SLDRBs-FailedToBeSetupMod-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SLDRBs-Modified-Item ::= SEQUENCE {

sLDRBID SLDRBID,

iE-Extensions ProtocolExtensionContainer { { SLDRBs-Modified-ItemExtIEs } } OPTIONAL

}

SLDRBs-Modified-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SLDRBs-ModifiedConf-Item ::= SEQUENCE {

sLDRBID SLDRBID,

iE-Extensions ProtocolExtensionContainer { { SLDRBs-ModifiedConf-ItemExtIEs } } OPTIONAL

}

SLDRBs-ModifiedConf-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SLDRBs-Required-ToBeModified-Item ::= SEQUENCE {

sLDRBID SLDRBID,

iE-Extensions ProtocolExtensionContainer { { SLDRBs-Required-ToBeModified-ItemExtIEs } } OPTIONAL

}

SLDRBs-Required-ToBeModified-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SLDRBs-Required-ToBeReleased-Item ::= SEQUENCE {

sLDRBID SLDRBID,

iE-Extensions ProtocolExtensionContainer { { SLDRBs-Required-ToBeReleased-ItemExtIEs } } OPTIONAL

}

SLDRBs-Required-ToBeReleased-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SLDRBs-Setup-Item ::= SEQUENCE {

sLDRBID SLDRBID,

iE-Extensions ProtocolExtensionContainer { { SLDRBs-Setup-ItemExtIEs } } OPTIONAL

}

SLDRBs-Setup-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SLDRBs-SetupMod-Item ::= SEQUENCE {

sLDRBID SLDRBID,

iE-Extensions ProtocolExtensionContainer { { SLDRBs-SetupMod-ItemExtIEs } } OPTIONAL

}

SLDRBs-SetupMod-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SLDRBs-ToBeModified-Item ::= SEQUENCE {

sLDRBID SLDRBID,

sLDRBInformation SLDRBInformation OPTIONAL,

rLCMode RLCMode OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { SLDRBs-ToBeModified-ItemExtIEs } } OPTIONAL

}

SLDRBs-ToBeModified-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SLDRBs-ToBeReleased-Item ::= SEQUENCE {

sLDRBID SLDRBID,

iE-Extensions ProtocolExtensionContainer { { SLDRBs-ToBeReleased-ItemExtIEs } } OPTIONAL

}

SLDRBs-ToBeReleased-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SLDRBs-ToBeSetup-Item ::= SEQUENCE {

sLDRBID SLDRBID,

sLDRBInformation SLDRBInformation,

rLCMode RLCMode,

iE-Extensions ProtocolExtensionContainer { { SLDRBs-ToBeSetup-ItemExtIEs } } OPTIONAL

}

SLDRBs-ToBeSetup-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SLDRBs-ToBeSetupMod-Item ::= SEQUENCE {

sLDRBID SLDRBID,

sLDRBInformation SLDRBInformation,

rLCMode RLCMode OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { SLDRBs-ToBeSetupMod-ItemExtIEs } } OPTIONAL

}

SLDRBs-ToBeSetupMod-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SLDRXCycleList ::= SEQUENCE (SIZE(1.. maxnoofSLdestinations)) OF SLDRXCycleItem

SLDRXCycleItem ::= SEQUENCE {

rXUEID BIT STRING (SIZE(24)),

sLDRXInformation SLDRXInformation,

iE-Extensions ProtocolExtensionContainer { { SLDRXCycleItem-ExtIEs } } OPTIONAL,

...

}

SLDRXCycleItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SLDRXInformation ::= CHOICE {

sLDRXCycle SLDRXCycleLength,

nosLDRX SLDRXConfigurationIndicator,

choice-extension ProtocolIE-SingleContainer { { SLDRXInformation-ExtIEs} }

}

SLDRXCycleLength ::= ENUMERATED{ms10, ms20, ms32, ms40, ms60, ms64, ms70, ms80, ms128, ms160, ms256, ms320, ms512, ms640, ms1024, ms1280, ms2048, ms2560, ms5120, ms10240, ...}

SLDRXConfigurationIndicator ::= ENUMERATED{ release, ...}

SLDRXInformation-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

SL-PHY-MAC-RLC-Config ::= OCTET STRING

SL-RLC-ChannelToAddModList::= OCTET STRING

SL-ConfigDedicatedEUTRA-Info ::= OCTET STRING

SliceAvailableCapacity ::= SEQUENCE {

sliceAvailableCapacityList SliceAvailableCapacityList,

iE-Extensions ProtocolExtensionContainer { { SliceAvailableCapacity-ExtIEs} } OPTIONAL

}

SliceAvailableCapacity-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SliceAvailableCapacityList ::= SEQUENCE (SIZE(1.. maxnoofBPLMNsNR)) OF SliceAvailableCapacityItem

SliceAvailableCapacityItem ::= SEQUENCE {

pLMNIdentity PLMN-Identity,

sNSSAIAvailableCapacity-List SNSSAIAvailableCapacity-List,

iE-Extensions ProtocolExtensionContainer { { SliceAvailableCapacityItem-ExtIEs} } OPTIONAL

}

SliceAvailableCapacityItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SNSSAIAvailableCapacity-List ::= SEQUENCE (SIZE(1.. maxnoofSliceItems)) OF SNSSAIAvailableCapacity-Item

SNSSAIAvailableCapacity-Item ::= SEQUENCE {

sNSSAI SNSSAI,

sliceAvailableCapacityValueDownlink INTEGER (0..100) OPTIONAL,

sliceAvailableCapacityValueUplink INTEGER (0..100) OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { SNSSAIAvailableCapacity-Item-ExtIEs } } OPTIONAL

}

SNSSAIAvailableCapacity-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SliceRadioResourceStatus ::= SEQUENCE {

sliceRadioResourceStatus SliceRadioResourceStatus-List,

iE-Extensions ProtocolExtensionContainer { { SliceRadioResourceStatus-ExtIEs} } OPTIONAL

}

SliceRadioResourceStatus-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SliceRadioResourceStatus-List ::= SEQUENCE (SIZE(1..maxnoofBPLMNsNR)) OF SliceRadioResourceStatus-Item

SliceRadioResourceStatus-Item::= SEQUENCE {

pLMNIdentity PLMN-Identity,

sNSSAIRadioResourceStatus-List SNSSAIRadioResourceStatus-List,

iE-Extensions ProtocolExtensionContainer { { SliceRadioResourceStatus-Item-ExtIEs} } OPTIONAL

}

SliceRadioResourceStatus-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SNSSAIRadioResourceStatus-List ::= SEQUENCE (SIZE(1.. maxnoofSliceItems)) OF SNSSAIRadioResourceStatus-Item

SNSSAIRadioResourceStatus-Item ::= SEQUENCE {

sNSSAI SNSSAI,

sNSSAIdlGBRPRBusage INTEGER (0..100),

sNSSAIulGBRPRBusage INTEGER (0..100),

sNSSAIdlNonGBRPRBusage INTEGER (0..100),

sNSSAIulNonGBRPRBusage INTEGER (0..100),

sNSSAIdlTotalPRBallocation INTEGER (0..100),

sNSSAIulTotalPRBallocation INTEGER (0..100),

iE-Extensions ProtocolExtensionContainer { { SNSSAIRadioResourceStatus-Item-ExtIEs } } OPTIONAL

}

SNSSAIRadioResourceStatus-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SliceSupportList ::= SEQUENCE (SIZE(1.. maxnoofSliceItems)) OF SliceSupportItem

SliceSupportItem ::= SEQUENCE {

sNSSAI SNSSAI,

iE-Extensions ProtocolExtensionContainer { { SliceSupportItem-ExtIEs } } OPTIONAL

}

SliceSupportItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SliceToReportList ::= SEQUENCE (SIZE(1.. maxnoofBPLMNsNR)) OF SliceToReportItem

SliceToReportItem ::= SEQUENCE {

pLMNIdentity PLMN-Identity,

sNSSAIlist SNSSAI-list,

iE-Extensions ProtocolExtensionContainer { { SliceToReportItem-ExtIEs} } OPTIONAL

}

SliceToReportItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SlotNumber ::= INTEGER (0..79)

SNSSAI-list ::= SEQUENCE (SIZE(1.. maxnoofSliceItems)) OF SNSSAI-Item

SNSSAI-Item ::= SEQUENCE {

sNSSAI SNSSAI,

iE-Extensions ProtocolExtensionContainer { { SNSSAI-Item-ExtIEs } } OPTIONAL

}

SNSSAI-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Slot-Configuration-List ::= SEQUENCE (SIZE(1.. maxnoofslots)) OF Slot-Configuration-Item

Slot-Configuration-Item ::= SEQUENCE {

slotIndex INTEGER (0..5119, ...),

symbolAllocInSlot SymbolAllocInSlot,

iE-Extensions ProtocolExtensionContainer { { Slot-Configuration-ItemExtIEs } } OPTIONAL

}

Slot-Configuration-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SNSSAI ::= SEQUENCE {

sST OCTET STRING (SIZE(1)),

sD OCTET STRING (SIZE(3)) OPTIONAL ,

iE-Extensions ProtocolExtensionContainer { { SNSSAI-ExtIEs } } OPTIONAL

}

SNSSAI-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SpatialDirectionInformation ::= SEQUENCE {

nR-PRSBeamInformation NR-PRSBeamInformation,

iE-Extensions ProtocolExtensionContainer { { SpatialDirectionInformation-ExtIEs } } OPTIONAL

}

SpatialDirectionInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SpatialRelationInfo ::= SEQUENCE {

spatialRelationforResourceID SpatialRelationforResourceID,

iE-Extensions ProtocolExtensionContainer { {SpatialRelationInfo-ExtIEs} } OPTIONAL

}

SpatialRelationInfo-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SpatialRelationforResourceID ::= SEQUENCE (SIZE(1..maxnoofSpatialRelations)) OF SpatialRelationforResourceIDItem

SpatialRelationforResourceIDItem ::= SEQUENCE {

referenceSignal ReferenceSignal,

iE-Extensions ProtocolExtensionContainer { {SpatialRelationforResourceIDItem-ExtIEs} } OPTIONAL

}

SpatialRelationforResourceIDItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SpatialRelationPerSRSResource ::= SEQUENCE {

spatialRelationPerSRSResource-List SpatialRelationPerSRSResource-List,

iE-Extensions ProtocolExtensionContainer { { SpatialRelationPerSRSResource-ExtIEs} } OPTIONAL,

...

}

SpatialRelationPerSRSResource-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SpatialRelationPerSRSResource-List::= SEQUENCE(SIZE (1.. maxnoSRS-ResourcePerSet)) OF SpatialRelationPerSRSResourceItem

SpatialRelationPerSRSResourceItem ::= SEQUENCE {

referenceSignal ReferenceSignal,

iE-Extensions ProtocolExtensionContainer { { SpatialRelationPerSRSResourceItem-ExtIEs} } OPTIONAL,

...

}

SpatialRelationPerSRSResourceItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SpatialRelationPos ::= CHOICE {

sSBPos SSB,

pRSInformationPos PRSInformationPos,

choice-extension ProtocolIE-SingleContainer {{ SpatialInformationPos-ExtIEs }}

}

SpatialInformationPos-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

SpectrumSharingGroupID ::= INTEGER (1..maxCellineNB)

SRBID ::= INTEGER (0..3, ...)

SRBs-FailedToBeSetup-Item ::= SEQUENCE {

sRBID SRBID ,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { SRBs-FailedToBeSetup-ItemExtIEs } } OPTIONAL,

...

}

SRBs-FailedToBeSetup-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SRBs-FailedToBeSetupMod-Item ::= SEQUENCE {

sRBID SRBID ,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { SRBs-FailedToBeSetupMod-ItemExtIEs } } OPTIONAL,

...

}

SRBs-FailedToBeSetupMod-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SRBs-Modified-Item ::= SEQUENCE {

sRBID SRBID,

lCID LCID,

iE-Extensions ProtocolExtensionContainer { { SRBs-Modified-ItemExtIEs } } OPTIONAL,

...

}

SRBs-Modified-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SRBs-Required-ToBeReleased-Item ::= SEQUENCE {

sRBID SRBID,

iE-Extensions ProtocolExtensionContainer { { SRBs-Required-ToBeReleased-ItemExtIEs } } OPTIONAL,

...

}

SRBs-Required-ToBeReleased-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SRBs-Setup-Item ::= SEQUENCE {

sRBID SRBID,

lCID LCID,

iE-Extensions ProtocolExtensionContainer { { SRBs-Setup-ItemExtIEs } } OPTIONAL,

...

}

SRBs-Setup-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SRBs-SetupMod-Item ::= SEQUENCE {

sRBID SRBID,

lCID LCID,

iE-Extensions ProtocolExtensionContainer { { SRBs-SetupMod-ItemExtIEs } } OPTIONAL,

...

}

SRBs-SetupMod-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SRBs-ToBeReleased-Item ::= SEQUENCE {

sRBID SRBID,

iE-Extensions ProtocolExtensionContainer { { SRBs-ToBeReleased-ItemExtIEs } } OPTIONAL,

...

}

SRBs-ToBeReleased-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SRBs-ToBeSetup-Item ::= SEQUENCE {

sRBID SRBID ,

duplicationIndication DuplicationIndication OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { SRBs-ToBeSetup-ItemExtIEs } } OPTIONAL,

...

}

SRBs-ToBeSetup-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-AdditionalDuplicationIndication CRITICALITY ignore EXTENSION AdditionalDuplicationIndication PRESENCE optional }|

{ ID id-SDTRLCBearerConfiguration CRITICALITY ignore EXTENSION SDTRLCBearerConfiguration PRESENCE optional }|

{ ID id-SRBMappingInfo CRITICALITY ignore EXTENSION UuRLCChannelID PRESENCE optional },

...

}

SRBs-ToBeSetupMod-Item ::= SEQUENCE {

sRBID SRBID,

duplicationIndication DuplicationIndication OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { SRBs-ToBeSetupMod-ItemExtIEs } } OPTIONAL,

...

}

SRBs-ToBeSetupMod-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-AdditionalDuplicationIndication CRITICALITY ignore EXTENSION AdditionalDuplicationIndication PRESENCE optional }|

{ ID id-SRBMappingInfo CRITICALITY ignore EXTENSION UuRLCChannelID PRESENCE optional }|

{ ID id-CG-SDTindicatorSetup CRITICALITY reject EXTENSION CG-SDTindicatorSetup PRESENCE optional },

...

}

SRSCarrier-List ::= SEQUENCE (SIZE(1.. maxnoSRS-Carriers)) OF SRSCarrier-List-Item

SRSCarrier-List-Item ::= SEQUENCE {

pointA INTEGER (0..3279165),

uplinkChannelBW-PerSCS-List UplinkChannelBW-PerSCS-List,

activeULBWP ActiveULBWP,

pci NRPCI OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { SRSCarrier-List-Item-ExtIEs } } OPTIONAL

}

SRSCarrier-List-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SRSConfig ::= SEQUENCE {

sRSResource-List SRSResource-List OPTIONAL,

posSRSResource-List PosSRSResource-List OPTIONAL,

sRSResourceSet-List SRSResourceSet-List OPTIONAL,

posSRSResourceSet-List PosSRSResourceSet-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { SRSConfig-ExtIEs } } OPTIONAL

}

SRSConfig-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SRSConfiguration ::= SEQUENCE {

sRSCarrier-List SRSCarrier-List,

iE-Extensions ProtocolExtensionContainer { { SRSConfiguration-ExtIEs } } OPTIONAL

}

SRSConfiguration-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SrsFrequency ::= INTEGER (0..3279165)

SRSPortIndex ::= ENUMERATED {id1000, id1001, id1002, id1003,...}

SRSPosResourceID ::= INTEGER (0..63)

SRSResource::= SEQUENCE {

sRSResourceID SRSResourceID,

nrofSRS-Ports ENUMERATED {port1, ports2, ports4},

transmissionComb TransmissionComb,

startPosition INTEGER (0..13),

nrofSymbols ENUMERATED {n1, n2, n4},

repetitionFactor ENUMERATED {n1, n2, n4},

freqDomainPosition INTEGER (0..67),

freqDomainShift INTEGER (0..268),

c-SRS INTEGER (0..63),

b-SRS INTEGER (0..3),

b-hop INTEGER (0..3),

groupOrSequenceHopping ENUMERATED { neither, groupHopping, sequenceHopping },

resourceType ResourceType,

sequenceId INTEGER (0..1023),

iE-Extensions ProtocolExtensionContainer { { SRSResource-ExtIEs } } OPTIONAL

}

SRSResource-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-nrofSymbolsExtended CRITICALITY ignore EXTENSION NrofSymbolsExtended PRESENCE optional}|

{ ID id-repetitionFactorExtended CRITICALITY ignore EXTENSION RepetitionFactorExtended PRESENCE optional}|

{ ID id-startRBHopping CRITICALITY ignore EXTENSION StartRBHopping PRESENCE optional}|

{ ID id-startRBIndex CRITICALITY ignore EXTENSION StartRBIndex PRESENCE optional},

...

}

SRSResourceID ::= INTEGER (0..63)

SRSResourceID-List::= SEQUENCE (SIZE (1..maxnoSRS-ResourcePerSet)) OF SRSResourceID

SRSResource-List ::= SEQUENCE (SIZE (1..maxnoSRS-Resources)) OF SRSResource

SRSResourceSet::= SEQUENCE {

sRSResourceSetID SRSResourceSetID,

sRSResourceID-List SRSResourceID-List,

resourceSetType ResourceSetType,

iE-Extensions ProtocolExtensionContainer { { SRSResourceSet-ExtIEs } } OPTIONAL

}

SRSResourceSet-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SRSResourceSetID ::= INTEGER (0..15, ...)

SRSResourceSetList ::= SEQUENCE (SIZE(1.. maxnoSRS-ResourceSets)) OF SRSResourceSetItem

SRSResourceSetItem ::= SEQUENCE {

numSRSresourcesperset INTEGER (1..16, ...) OPTIONAL,

periodicityList PeriodicityList OPTIONAL,

spatialRelationInfo SpatialRelationInfo OPTIONAL,

pathlossReferenceInfo PathlossReferenceInfo OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { SRSResourceSetItemExtIEs } } OPTIONAL

}

SRSResourceSetItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-SRSSpatialRelationPerSRSResource CRITICALITY ignore EXTENSION SpatialRelationPerSRSResource PRESENCE optional},

...

}

SRSResourceSet-List ::= SEQUENCE (SIZE (1..maxnoSRS-ResourceSets)) OF SRSResourceSet

SRSResourceTrigger ::= SEQUENCE {

aperiodicSRSResourceTriggerList AperiodicSRSResourceTriggerList,

iE-Extensions ProtocolExtensionContainer { {SRSResourceTrigger-ExtIEs} } OPTIONAL

}

SRSResourceTrigger-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SRSResourcetype ::= SEQUENCE {

sRSResourceTypeChoice SRSResourceTypeChoice,

iE-Extensions ProtocolExtensionContainer { { SRSResourcetype-ExtIEs} } OPTIONAL,

...

}

SRSResourcetype-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-SRSPortIndex CRITICALITY ignore EXTENSION SRSPortIndex PRESENCE optional },

...

}

SRSResourceTypeChoice ::= CHOICE {

sRSResourceInfo SRSInfo,

posSRSResourceInfo PosSRSInfo,

choice-extension ProtocolIE-SingleContainer { { SRSResourceTypeChoice-ExtIEs} }

}

SRSResourceTypeChoice-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

SRSInfo ::= SEQUENCE {

sRSResource SRSResourceID,

...

}

SRSPosRRCInactiveConfig ::= OCTET STRING

SRSPosRRCInactiveQueryIndication ::= ENUMERATED {true, ...}

PosSRSInfo ::= SEQUENCE {

posSRSResourceID SRSPosResourceID,

...

}

SSB ::= SEQUENCE {

pCI-NR NRPCI,

ssb-index SSB-Index OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {SSB-ExtIEs} } OPTIONAL

}

SSBCoverageModification-List ::= SEQUENCE (SIZE (1..maxnoofSSBAreas)) OF SSBCoverageModification-Item

SSBCoverageModification-Item::= SEQUENCE {

sSBIndex INTEGER(0..63),

sSBCoverageState SSBCoverageState,

iE-Extensions ProtocolExtensionContainer { { SSBCoverageModification-Item-ExtIEs} } OPTIONAL,

...

}

SSBCoverageModification-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SSBCoverageState ::= INTEGER (0..15, ...)

SSB-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SSB-freqInfo ::= INTEGER (0..maxNRARFCN)

SSB-Index ::= INTEGER(0..63)

SSB-subcarrierSpacing ::= ENUMERATED {kHz15, kHz30, kHz120, kHz240, spare3, spare2, spare1, ...}

SSB-transmissionPeriodicity ::= ENUMERATED {sf10, sf20, sf40, sf80, sf160, sf320, sf640, ...}

SSB-transmissionTimingOffset ::= INTEGER (0..127, ...)

SSB-transmissionBitmap ::= CHOICE {

shortBitmap BIT STRING (SIZE (4)),

mediumBitmap BIT STRING (SIZE (8)),

longBitmap BIT STRING (SIZE (64)),

choice-extension ProtocolIE-SingleContainer { { SSB-transmisisonBitmap-ExtIEs} }

}

SSB-transmisisonBitmap-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

SSBAreaCapacityValueList ::= SEQUENCE (SIZE(1.. maxnoofSSBAreas)) OF SSBAreaCapacityValueItem

SSBAreaCapacityValueItem ::= SEQUENCE {

sSBIndex INTEGER(0..63),

sSBAreaCapacityValue INTEGER (0..100),

iE-Extensions ProtocolExtensionContainer { { SSBAreaCapacityValueItem-ExtIEs} } OPTIONAL

}

SSBAreaCapacityValueItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SSBAreaRadioResourceStatusList::= SEQUENCE (SIZE(1.. maxnoofSSBAreas)) OF SSBAreaRadioResourceStatusItem

SSBAreaRadioResourceStatusItem::= SEQUENCE {

sSBIndex INTEGER(0..63),

sSBAreaDLGBRPRBusage INTEGER (0..100),

sSBAreaULGBRPRBusage INTEGER (0..100),

sSBAreaDLnon-GBRPRBusage INTEGER (0..100),

sSBAreaULnon-GBRPRBusage INTEGER (0..100),

sSBAreaDLTotalPRBusage INTEGER (0..100),

sSBAreaULTotalPRBusage INTEGER (0..100),

dLschedulingPDCCHCCEusage INTEGER (0..100) OPTIONAL,

uLschedulingPDCCHCCEusage INTEGER (0..100) OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { SSBAreaRadioResourceStatusItem-ExtIEs} } OPTIONAL

}

SSBAreaRadioResourceStatusItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SSBInformation ::= SEQUENCE {

sSBInformationList SSBInformationList,

iE-Extensions ProtocolExtensionContainer { { SSBInformation-ExtIEs } } OPTIONAL

}

SSBInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SSBInformationList ::= SEQUENCE (SIZE(1.. maxnoofSSBs)) OF SSBInformationItem

SSBInformationItem ::= SEQUENCE {

sSB-Configuration SSB-TF-Configuration,

pCI-NR NRPCI,

iE-Extensions ProtocolExtensionContainer { { SSBInformationItem-ExtIEs } } OPTIONAL

}

SSBInformationItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SSB-PositionsInBurst ::= CHOICE {

shortBitmap BIT STRING (SIZE (4)),

mediumBitmap BIT STRING (SIZE (8)),

longBitmap BIT STRING (SIZE (64)),

choice-extension ProtocolIE-SingleContainer { {SSB-PositionsInBurst-ExtIEs} }

}

SSB-PositionsInBurst-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

SSB-TF-Configuration ::= SEQUENCE {

sSB-frequency INTEGER (0..3279165),

sSB-subcarrier-spacing ENUMERATED {kHz15, kHz30, kHz60, kHz120, kHz240, ..., kHz480, kHz960},

-- The value kHz60 is not supported in this version of the specification.

sSB-Transmit-power INTEGER (-60..50),

sSB-periodicity ENUMERATED {ms5, ms10, ms20, ms40, ms80, ms160, ...},

sSB-half-frame-offset INTEGER(0..1),

sSB-SFN-offset INTEGER(0..15),

sSB-position-in-burst SSB-PositionsInBurst OPTIONAL,

sFNInitialisationTime RelativeTime1900 OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { SSB-TF-Configuration-ExtIEs} } OPTIONAL

}

SSB-TF-Configuration-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SSBToReportList ::= SEQUENCE (SIZE(1.. maxnoofSSBAreas)) OF SSBToReportItem

SSBToReportItem ::= SEQUENCE {

sSBIndex INTEGER(0..63),

iE-Extensions ProtocolExtensionContainer { { SSBToReportItem-ExtIEs} } OPTIONAL

}

SSBToReportItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

StartRBIndex ::= CHOICE{

freqScalingFactor2 INTEGER(0..1),

freqScalingFactor4 INTEGER(0..3),

choice-extension ProtocolIE-SingleContainer { { StartRBIndex-ExtIEs} }

}

StartRBIndex-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

StartRBHopping ::= ENUMERATED {enable}

StartTimeAndDuration ::= SEQUENCE {

startTime RelativeTime1900 OPTIONAL,

duration INTEGER (0..90060, ...) OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { StartTimeAndDuration-ExtIEs } } OPTIONAL,

...

}

StartTimeAndDuration-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SUL-Information ::= SEQUENCE {

sUL-NRARFCN INTEGER (0..maxNRARFCN),

sUL-transmission-Bandwidth Transmission-Bandwidth,

iE-Extensions ProtocolExtensionContainer { { SUL-InformationExtIEs} } OPTIONAL,

...

}

SUL-InformationExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-CarrierList CRITICALITY ignore EXTENSION NRCarrierList PRESENCE optional }|

{ ID id-FrequencyShift7p5khz CRITICALITY ignore EXTENSION FrequencyShift7p5khz PRESENCE optional },

...

}

SubcarrierSpacing ::= ENUMERATED { kHz15, kHz30, kHz60, kHz120, kHz240, spare3, spare2, spare1, ...}

SubscriberProfileIDforRFP ::= INTEGER (1..256, ...)

SuccessfulHOReportInformationList::= SEQUENCE (SIZE(1.. maxnoofSuccessfulHOReports)) OF SuccessfulHOReportInformation-Item

SuccessfulHOReportInformation-Item ::= SEQUENCE {

successfulHOReportContainer OCTET STRING,

iE-Extensions ProtocolExtensionContainer { { SuccessfulHOReportInformation-Item-ExtIEs } } OPTIONAL

}

SuccessfulHOReportInformation-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SULAccessIndication ::= ENUMERATED {true,...}

SupportedSULFreqBandItem ::= SEQUENCE {

freqBandIndicatorNr INTEGER (1..1024,...),

iE-Extensions ProtocolExtensionContainer { { SupportedSULFreqBandItem-ExtIEs} } OPTIONAL,

...

}

SupportedSULFreqBandItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

SurvivalTime ::= INTEGER (0.. 1920000,...)

SymbolAllocInSlot ::= CHOICE {

all-DL NULL,

all-UL NULL,

both-DL-and-UL NumDLULSymbols,

choice-extension ProtocolIE-SingleContainer { { SymbolAllocInSlot-ExtIEs } }

}

SymbolAllocInSlot-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

SystemFrameNumber ::= INTEGER (0..1023)

SystemInformationAreaID ::=BIT STRING (SIZE (24))

-- T

FiveGS-TAC ::= OCTET STRING (SIZE(3))

Configured-EPS-TAC ::= OCTET STRING (SIZE(2))

TargetCellList ::= SEQUENCE (SIZE(1..maxnoofCHOcells)) OF TargetCellList-Item

TargetCellList-Item ::= SEQUENCE {

target-cell NRCGI,

iE-Extensions ProtocolExtensionContainer { { TargetCellList-Item-ExtIEs} } OPTIONAL

}

TargetCellList-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NSAGSupportList ::= SEQUENCE (SIZE(1.. maxnoofNSAGs)) OF NSAGSupportItem

NSAGSupportItem ::= SEQUENCE {

nSAG-ID NSAG-ID,

nSAGSliceSupport ExtendedSliceSupportList,

iE-Extensions ProtocolExtensionContainer { {NSAGSupportItem-ExtIEs} } OPTIONAL,

...

}

NSAGSupportItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

NSAG-ID ::= INTEGER (0..255, ...)

TDD-Info ::= SEQUENCE {

nRFreqInfo NRFreqInfo,

transmission-Bandwidth Transmission-Bandwidth,

iE-Extensions ProtocolExtensionContainer { {TDD-Info-ExtIEs} } OPTIONAL,

...

}

TDD-Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ID id-IntendedTDD-DL-ULConfig CRITICALITY ignore EXTENSION IntendedTDD-DL-ULConfig PRESENCE optional}|

{ID id-TDD-UL-DLConfigCommonNR CRITICALITY ignore EXTENSION TDD-UL-DLConfigCommonNR PRESENCE optional }|

{ID id-CarrierList CRITICALITY ignore EXTENSION NRCarrierList PRESENCE optional },

...

}

TDD-InfoRel16 ::= SEQUENCE {

tDD-FreqInfo FreqInfoRel16 OPTIONAL,

sUL-FreqInfo FreqInfoRel16 OPTIONAL,

tDD-UL-DLConfigCommonNR TDD-UL-DLConfigCommonNR OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {TDD-InfoRel16-ExtIEs} } OPTIONAL,

...

}

TDD-InfoRel16-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TDD-UL-DLConfigCommonNR ::= OCTET STRING

TRPTEGInformation ::= CHOICE {

rxTx-TEG RxTxTEG,

rx-TEG RxTEG,

choice-extension ProtocolIE-SingleContainer { { TRPTEGInformation-ExtIEs} }

}

TRPTEGInformation-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

RxTxTEG ::= SEQUENCE {

tRP-RxTx-TEGInformation TRP-RxTx-TEGInformation,

tRP-Tx-TEGInformation TRP-Tx-TEGInformation OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { RxTxTEG-ExtIEs } } OPTIONAL,

...

}

RxTxTEG-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

RxTEG ::= SEQUENCE {

tRP-Rx-TEGInformation TRP-Rx-TEGInformation,

tRP-Tx-TEGInformation TRP-Tx-TEGInformation,

iE-Extensions ProtocolExtensionContainer { { RxTEG-ExtIEs } } OPTIONAL,

...

}

RxTEG-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TimeReferenceInformation ::= SEQUENCE {

referenceTime ReferenceTime,

referenceSFN ReferenceSFN,

uncertainty Uncertainty,

timeInformationType TimeInformationType,

iE-Extensions ProtocolExtensionContainer { {TimeReferenceInformation-ExtIEs} } OPTIONAL

}

TimeReferenceInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TimeInformationType ::= ENUMERATED {localClock}

TimeStamp ::= SEQUENCE {

systemFrameNumber SystemFrameNumber,

slotIndex TimeStampSlotIndex,

measurementTime RelativeTime1900 OPTIONAL,

iE-Extension ProtocolExtensionContainer { { TimeStamp-ExtIEs} } OPTIONAL

}

TimeStamp-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TimeStampSlotIndex ::= CHOICE {

sCS-15 INTEGER(0..9),

sCS-30 INTEGER(0..19),

sCS-60 INTEGER(0..39),

sCS-120 INTEGER(0..79),

choice-extension ProtocolIE-SingleContainer { { TimeStampSlotIndex-ExtIEs} }

}

TimeStampSlotIndex-ExtIEs F1AP-PROTOCOL-IES ::= {

{ ID id-SCS-480 CRITICALITY reject TYPE SCS-480 PRESENCE mandatory}|

{ ID id-SCS-960 CRITICALITY reject TYPE SCS-960 PRESENCE mandatory},

...

}

TimeToWait ::= ENUMERATED {v1s, v2s, v5s, v10s, v20s, v60s, ...}

TimingErrorMargin ::= ENUMERATED {m0Tc, m2Tc, m4Tc, m6Tc, m8Tc, m12Tc, m16Tc, m20Tc, m24Tc, m32Tc, m40Tc, m48Tc, m56Tc, m64Tc, m72Tc, m80Tc, ...}

TimingMeasurementQuality ::= SEQUENCE {

measurementQuality INTEGER(0..31),

resolution ENUMERATED{m0dot1, m1, m10, m30, ...},

iE-Extensions ProtocolExtensionContainer { { TimingMeasurementQuality-ExtIEs} } OPTIONAL

}

TimingMeasurementQuality-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TMGI ::= OCTET STRING (SIZE(6))

TNLAssociationUsage ::= ENUMERATED {

ue,

non-ue,

both,

...

}

TNLCapacityIndicator::= SEQUENCE {

dLTNLOfferedCapacity INTEGER (1.. 16777216,...),

dLTNLAvailableCapacity INTEGER (0.. 100,...),

uLTNLOfferedCapacity INTEGER (1.. 16777216,...),

uLTNLAvailableCapacity INTEGER (0.. 100,...),

iE-Extensions ProtocolExtensionContainer { { TNLCapacityIndicator-ExtIEs} } OPTIONAL

}

TNLCapacityIndicator-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TraceActivation ::= SEQUENCE {

traceID TraceID,

interfacesToTrace InterfacesToTrace,

traceDepth TraceDepth,

traceCollectionEntityIPAddress TransportLayerAddress,

iE-Extensions ProtocolExtensionContainer { {TraceActivation-ExtIEs} } OPTIONAL

}

TraceActivation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ID id-mdtConfiguration CRITICALITY ignore EXTENSION MDTConfiguration PRESENCE optional}|

{ID id-TraceCollectionEntityURI CRITICALITY ignore EXTENSION URI-address PRESENCE optional },

...

}

TraceDepth ::= ENUMERATED {

minimum,

medium,

maximum,

minimumWithoutVendorSpecificExtension,

mediumWithoutVendorSpecificExtension,

maximumWithoutVendorSpecificExtension,

...

}

TraceID ::= OCTET STRING (SIZE(8))

TrafficMappingInfo ::= CHOICE {

iPtolayer2TrafficMappingInfo IPtolayer2TrafficMappingInfo,

bAPlayerBHRLCchannelMappingInfo BAPlayerBHRLCchannelMappingInfo,

choice-extension ProtocolIE-SingleContainer { { TrafficMappingInfo-ExtIEs} }

}

TrafficMappingInfo-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

TransportLayerAddress ::= BIT STRING (SIZE(1..160, ...))

TransactionID ::= INTEGER (0..255, ...)

Transmission-Bandwidth ::= SEQUENCE {

nRSCS NRSCS,

nRNRB NRNRB,

iE-Extensions ProtocolExtensionContainer { { Transmission-Bandwidth-ExtIEs} } OPTIONAL,

...

}

Transmission-Bandwidth-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TransmissionComb ::= CHOICE {

n2 SEQUENCE {

combOffset-n2 INTEGER (0..1),

cyclicShift-n2 INTEGER (0..7)

},

n4 SEQUENCE {

combOffset-n4 INTEGER (0..3),

cyclicShift-n4 INTEGER (0..11)

},

choice-extension ProtocolIE-SingleContainer { { TransmissionComb-ExtIEs} }

}

TransmissionComb-ExtIEs F1AP-PROTOCOL-IES ::= {

{ ID id-transmissionCombn8 CRITICALITY reject TYPE TransmissionCombn8 PRESENCE mandatory},

...

}

TransmissionCombn8 ::= SEQUENCE {

combOffset-n8 INTEGER (0..7),

cyclicShift-n8 INTEGER (0..5),

iE-Extensions ProtocolExtensionContainer { { TransmissionCombn8-ExtIEs} } OPTIONAL

}

TransmissionCombn8-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TransmissionCombPos ::= CHOICE {

n2 SEQUENCE {

combOffset-n2 INTEGER (0..1),

cyclicShift-n2 INTEGER (0..7)

},

n4 SEQUENCE {

combOffset-n4 INTEGER (0..3),

cyclicShift-n4 INTEGER (0..11)

},

n8 SEQUENCE {

combOffset-n8 INTEGER (0..7),

cyclicShift-n8 INTEGER (0..5)

},

choice-extension ProtocolIE-SingleContainer { { TransmissionCombPos-ExtIEs} }

}

TransmissionCombPos-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

TransmissionStopIndicator ::= ENUMERATED {true, ... }

Transport-UP-Layer-Address-Info-To-Add-List ::= SEQUENCE (SIZE(1.. maxnoofTLAs)) OF Transport-UP-Layer-Address-Info-To-Add-Item

Transport-UP-Layer-Address-Info-To-Add-Item ::= SEQUENCE {

iP-SecTransportLayerAddress TransportLayerAddress,

gTPTransportLayerAddressToAdd GTPTLAs OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Transport-UP-Layer-Address-Info-To-Add-ItemExtIEs } } OPTIONAL

}

Transport-UP-Layer-Address-Info-To-Add-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Transport-UP-Layer-Address-Info-To-Remove-List ::= SEQUENCE (SIZE(1.. maxnoofTLAs)) OF Transport-UP-Layer-Address-Info-To-Remove-Item

Transport-UP-Layer-Address-Info-To-Remove-Item ::= SEQUENCE {

iP-SecTransportLayerAddress TransportLayerAddress,

gTPTransportLayerAddressToRemove GTPTLAs OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Transport-UP-Layer-Address-Info-To-Remove-ItemExtIEs } } OPTIONAL

}

Transport-UP-Layer-Address-Info-To-Remove-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TransmissionActionIndicator ::= ENUMERATED {stop, ..., restart }

TRPBeamAntennaInformation ::= SEQUENCE {

choice-TRP-Beam-Antenna-Info-Item Choice-TRP-Beam-Antenna-Info-Item ,

iE-Extensions ProtocolExtensionContainer {{ TRPBeamAntennaInformation-ExtIEs}} OPTIONAL,

...

}

TRPBeamAntennaInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

Choice-TRP-Beam-Antenna-Info-Item ::= CHOICE {

reference TRPID,

explicit TRP-BeamAntennaExplicitInformation,

noChange NULL,

choice-extension ProtocolIE-SingleContainer { { Choice-TRP-Beam-Info-Item-ExtIEs } }

}

Choice-TRP-Beam-Info-Item-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

TRP-BeamAntennaExplicitInformation ::= SEQUENCE {

trp-BeamAntennaAngles TRP-BeamAntennaAngles,

lcs-to-gcs-translation LCS-to-GCS-Translation OPTIONAL,

iE-Extensions ProtocolExtensionContainer {{ TRP-BeamAntennaExplicitInformation-ExtIEs}} OPTIONAL,

...

}

TRP-BeamAntennaExplicitInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TRP-BeamAntennaAngles ::= SEQUENCE (SIZE (1.. maxnoAzimuthAngles)) OF TRP-BeamAntennaAnglesList-Item

TRP-BeamAntennaAnglesList-Item ::= SEQUENCE {

trp-azimuth-angle INTEGER (0..359),

trp-azimuth-angle-fine INTEGER (0..9) OPTIONAL,

trp-elevation-angle-list SEQUENCE (SIZE (1.. maxnoElevationAngles)) OF TRP-ElevationAngleList-Item,

iE-Extensions ProtocolExtensionContainer {{ TRP-BeamAntennaAnglesList-Item-ExtIEs}} OPTIONAL,

...

}

TRP-BeamAntennaAnglesList-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TRP-ElevationAngleList-Item ::= SEQUENCE {

trp-elevation-angle INTEGER (0..180),

trp-elevation-angle-fine INTEGER (0..9) OPTIONAL,

trp-beam-power-list SEQUENCE (SIZE (2..maxNumResourcesPerAngle)) OF TRP-Beam-Power-Item,

iE-Extensions ProtocolExtensionContainer {{ TRP-ElevationAngleList-Item-ExtIEs}} OPTIONAL,

...

}

TRP-ElevationAngleList-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TRP-Beam-Power-Item ::= SEQUENCE {

pRSResourceSetID PRS-Resource-Set-ID OPTIONAL,

pRSResourceID PRS-Resource-ID,

relativePower INTEGER (0..30), --negative value

relativePowerFine INTEGER (0..9) OPTIONAL,

iE-Extensions ProtocolExtensionContainer {{ TRP-Beam-Power-Item-ExtIEs}} OPTIONAL,

...

}

TRP-Beam-Power-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TRPID ::= INTEGER (0.. maxnoofTRPs, ...)

TRPInformation ::= SEQUENCE {

tRPID TRPID,

tRPInformationTypeResponseList TRPInformationTypeResponseList,

iE-Extensions ProtocolExtensionContainer { { TRPInformation-ExtIEs } } OPTIONAL

}

TRPInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TRPInformationItem ::= SEQUENCE {

tRPInformation TRPInformation,

iE-Extensions ProtocolExtensionContainer { { TRPInformationItem-ExtIEs } } OPTIONAL

}

TRPInformationItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TRPInformationTypeItem ::= ENUMERATED {

nrPCI,

nG-RAN-CGI,

arfcn,

pRSConfig,

sSBConfig,

sFNInitTime,

spatialDirectInfo,

geoCoord,

...,

trp-type,

ondemandPRS,

trpTxTeg,

beam-antenna-info

}

TRPInformationTypeResponseList ::= SEQUENCE (SIZE(1.. maxnoofTRPInfoTypes)) OF TRPInformationTypeResponseItem

TRPInformationTypeResponseItem ::= CHOICE {

pCI-NR NRPCI,

nG-RAN-CGI NRCGI,

nRARFCN INTEGER (0..maxNRARFCN),

pRSConfiguration PRSConfiguration,

sSBinformation SSBInformation,

sFNInitialisationTime RelativeTime1900,

spatialDirectionInformation SpatialDirectionInformation,

geographicalCoordinates GeographicalCoordinates,

choice-extension ProtocolIE-SingleContainer { { TRPInformationTypeResponseItem-ExtIEs} }

}

TRPInformationTypeResponseItem-ExtIEs F1AP-PROTOCOL-IES ::= {

{ ID id-TRPType CRITICALITY reject TYPE TRPType PRESENCE mandatory }|

{ ID id-OnDemandPRS CRITICALITY reject TYPE OnDemandPRS-Info PRESENCE mandatory}|

{ ID id-TRPTxTEGAssociation CRITICALITY reject TYPE TRPTxTEGAssociation PRESENCE optional }|

{ ID id-TRPBeamAntennaInformation CRITICALITY reject TYPE TRPBeamAntennaInformation PRESENCE mandatory },

...

}

TRPList ::= SEQUENCE (SIZE(1.. maxnoofTRPs)) OF TRPListItem

TRPListItem ::= SEQUENCE {

tRPID TRPID,

iE-Extensions ProtocolExtensionContainer { { TRPListItem-ExtIEs } } OPTIONAL

}

TRPListItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TRPMeasurementQuality ::= SEQUENCE {

tRPmeasurementQuality-Item TRPMeasurementQuality-Item,

iE-Extensions ProtocolExtensionContainer { {TRPMeasurementQuality-ExtIEs} } OPTIONAL

}

TRPMeasurementQuality-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TRPMeasurementQuality-Item ::= CHOICE {

timingMeasurementQuality TimingMeasurementQuality,

angleMeasurementQuality AngleMeasurementQuality,

choice-extension ProtocolIE-SingleContainer { { TRPMeasurementQuality-Item-ExtIEs } }

}

TRPMeasurementQuality-Item-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

TRP-MeasurementRequestList ::= SEQUENCE (SIZE (1..maxNoOfMeasTRPs)) OF TRP-MeasurementRequestItem

TRP-MeasurementRequestItem ::= SEQUENCE {

tRPID TRPID,

search-window-information Search-window-information OPTIONAL,

iE-extensions ProtocolExtensionContainer { { TRP-MeasurementRequestItem-ExtIEs } } OPTIONAL

}

TRP-MeasurementRequestItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-NRCGI CRITICALITY ignore EXTENSION NRCGI PRESENCE optional }|

{ ID id-AoA-SearchWindow CRITICALITY ignore EXTENSION AoA-AssistanceInfo PRESENCE optional }|

{ ID id-NumberOfTRPRxTEG CRITICALITY ignore EXTENSION NumberOfTRPRxTEG PRESENCE optional }|

{ ID id-NumberOfTRPRxTxTEG CRITICALITY ignore EXTENSION NumberOfTRPRxTxTEG PRESENCE optional },

...

}

TRP-PRS-Info-List ::= SEQUENCE (SIZE(1.. maxnoofPRSTRPs)) OF TRP-PRS-Info-List-Item

TRP-PRS-Info-List-Item ::= SEQUENCE {

tRP-ID TRPID,

nR-PCI NRPCI,

cGI-NR NRCGI OPTIONAL,

pRSConfiguration PRSConfiguration,

iE-Extensions ProtocolExtensionContainer { { TRP-PRS-Info-List-Item-ExtIEs} } OPTIONAL,

...

}

TRP-PRS-Info-List-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TRPPositionDefinitionType ::= CHOICE {

direct TRPPositionDirect,

referenced TRPPositionReferenced,

choice-extension ProtocolIE-SingleContainer { { TRPPositionDefinitionType-ExtIEs } }

}

TRPPositionDefinitionType-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

TRPPositionDirect ::= SEQUENCE {

accuracy TRPPositionDirectAccuracy,

iE-extensions ProtocolExtensionContainer { { TRPPositionDirect-ExtIEs } } OPTIONAL

}

TRPPositionDirect-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TRPPositionDirectAccuracy ::= CHOICE {

tRPPosition AccessPointPosition,

tRPHAposition NGRANHighAccuracyAccessPointPosition,

choice-extension ProtocolIE-SingleContainer { { TRPPositionDirectAccuracy-ExtIEs } }

}

TRPPositionDirectAccuracy-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

TRPPositionReferenced ::= SEQUENCE {

referencePoint ReferencePoint,

referencePointType TRPReferencePointType,

iE-extensions ProtocolExtensionContainer { { TRPPositionReferenced-ExtIEs } } OPTIONAL

}

TRPPositionReferenced-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TRPReferencePointType ::= CHOICE {

tRPPositionRelativeGeodetic RelativeGeodeticLocation,

tRPPositionRelativeCartesian RelativeCartesianLocation,

choice-extension ProtocolIE-SingleContainer { { TRPReferencePointType-ExtIEs } }

}

TRPReferencePointType-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

TRP-Rx-TEGInformation ::= SEQUENCE {

tRP-Rx-TEGID INTEGER (0..31),

tRP-Rx-TimingErrorMargin TimingErrorMargin,

iE-Extensions ProtocolExtensionContainer { { TRP-Rx-TEGInformation-ExtIEs } } OPTIONAL,

...

}

TRP-Rx-TEGInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TRP-RxTx-TEGInformation ::= SEQUENCE {

tRP-RxTx-TEGID INTEGER (0..255),

tRP-RxTx-TimingErrorMargin RxTxTimingErrorMargin,

iE-Extensions ProtocolExtensionContainer { { TRP-RxTx-TEGInformation-ExtIEs } } OPTIONAL,

...

}

TRP-RxTx-TEGInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TRP-Tx-TEGInformation ::= SEQUENCE {

tRP-Tx-TEGID INTEGER (0..7),

tRP-Tx-TimingErrorMargin TimingErrorMargin,

iE-Extensions ProtocolExtensionContainer { { TRP-Tx-TEGInformation-ExtIEs } } OPTIONAL,

...

}

TRP-Tx-TEGInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TRPTxTEGAssociation ::= SEQUENCE (SIZE(1.. maxnoTRPTEGs)) OF TRPTEG-Item

TRPTEG-Item ::= SEQUENCE {

tRP-Tx-TEGInformation TRP-Tx-TEGInformation,

dl-PRSResourceSetID PRS-Resource-Set-ID,

dl-PRSResourceID-List SEQUENCE (SIZE(1.. maxnoofPRS-ResourcesPerSet)) OF DLPRSResourceID-Item OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { TRPTEGItem-ExtIEs } } OPTIONAL,

...

}

TRPTEGItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

DLPRSResourceID-Item ::= SEQUENCE {

dl-PRSResourceID PRS-Resource-ID,

iE-Extensions ProtocolExtensionContainer { { DLPRSResource-Item-ExtIEs} } OPTIONAL,

...

}

DLPRSResource-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TypeOfError ::= ENUMERATED {

not-understood,

missing,

...

}

Transport-Layer-Address-Info ::= SEQUENCE {

transport-UP-Layer-Address-Info-To-Add-List Transport-UP-Layer-Address-Info-To-Add-List OPTIONAL,

transport-UP-Layer-Address-Info-To-Remove-List Transport-UP-Layer-Address-Info-To-Remove-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Transport-Layer-Address-Info-ExtIEs } } OPTIONAL

}

Transport-Layer-Address-Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TRPType ::= ENUMERATED {

prsOnlyTP,

srsOnlyRP,

tp,

rp,

trp,

...

}

TSCAssistanceInformation ::= SEQUENCE {

periodicity Periodicity,

burstArrivalTime BurstArrivalTime OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {TSCAssistanceInformation-ExtIEs} } OPTIONAL,

...

}

TSCAssistanceInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-SurvivalTime CRITICALITY ignore EXTENSION SurvivalTime PRESENCE optional },

...

}

TSCTrafficCharacteristics ::= SEQUENCE {

tSCAssistanceInformationDL TSCAssistanceInformation OPTIONAL,

tSCAssistanceInformationUL TSCAssistanceInformation OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {TSCTrafficCharacteristics-ExtIEs} } OPTIONAL,

...

}

TSCTrafficCharacteristics-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

TRP-MeasurementUpdateList ::= SEQUENCE (SIZE (1..maxNoOfMeasTRPs)) OF TRP-MeasurementUpdateItem

TRP-MeasurementUpdateItem ::= SEQUENCE {

tRP-ID TRPID,

aoA-window-information AoA-AssistanceInfo OPTIONAL,

iE-extensions ProtocolExtensionContainer { { TRP-MeasurementUpdateItem-ExtIEs } } OPTIONAL,

...

}

TRP-MeasurementUpdateItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-NumberOfTRPRxTEG CRITICALITY ignore EXTENSION NumberOfTRPRxTEG PRESENCE optional }|

{ ID id-NumberOfTRPRxTxTEG CRITICALITY ignore EXTENSION NumberOfTRPRxTxTEG PRESENCE optional },

...

}

TwoPHRModeMCG ::= ENUMERATED {enabled, ...}

TwoPHRModeSCG ::= ENUMERATED {enabled, ...}

-- U

UAC-Assistance-Info ::= SEQUENCE {

uACPLMN-List UACPLMN-List,

iE-Extensions ProtocolExtensionContainer { { UAC-Assistance-InfoExtIEs} } OPTIONAL

}

UAC-Assistance-InfoExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UACPLMN-List ::= SEQUENCE (SIZE(1..maxnoofUACPLMNs)) OF UACPLMN-Item

UACPLMN-Item::= SEQUENCE {

pLMNIdentity PLMN-Identity,

uACType-List UACType-List, iE-Extensions ProtocolExtensionContainer { { UACPLMN-Item-ExtIEs} } OPTIONAL

}

UACPLMN-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-NID CRITICALITY ignore EXTENSION NID PRESENCE optional },

...

}

UACType-List ::= SEQUENCE (SIZE(1..maxnoofUACperPLMN)) OF UACType-Item

UACType-Item::= SEQUENCE {

uACReductionIndication UACReductionIndication,

uACCategoryType UACCategoryType,

iE-Extensions ProtocolExtensionContainer { { UACType-Item-ExtIEs } } OPTIONAL

}

UACType-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UACCategoryType ::= CHOICE {

uACstandardized UACAction,

uACOperatorDefined UACOperatorDefined,

choice-extension ProtocolIE-SingleContainer { { UACCategoryType-ExtIEs } }

}

UACCategoryType-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

UACOperatorDefined ::= SEQUENCE {

accessCategory INTEGER (32..63,...),

accessIdentity BIT STRING (SIZE(7)),

iE-Extensions ProtocolExtensionContainer { { UACOperatorDefined-ExtIEs} } OPTIONAL

}

UACOperatorDefined-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UACAction ::= ENUMERATED {

reject-non-emergency-mo-dt,

reject-rrc-cr-signalling,

permit-emergency-sessions-and-mobile-terminated-services-only,

permit-high-priority-sessions-and-mobile-terminated-services-only,

...

}

UACReductionIndication ::= INTEGER (0..100)

UE-associatedLogicalF1-ConnectionItem ::= SEQUENCE {

gNB-CU-UE-F1AP-ID GNB-CU-UE-F1AP-ID OPTIONAL,

gNB-DU-UE-F1AP-ID GNB-DU-UE-F1AP-ID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { UE-associatedLogicalF1-ConnectionItemExtIEs} } OPTIONAL,

...

}

UEAssistanceInformation ::= OCTET STRING

UEAssistanceInformationEUTRA ::= OCTET STRING

UE-associatedLogicalF1-ConnectionItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UE-CapabilityRAT-ContainerList::= OCTET STRING

UEContextNotRetrievable ::= ENUMERATED {true, ...}

UEIdentityIndexValue ::= CHOICE {

indexLength10 BIT STRING (SIZE (10)),

choice-extension ProtocolIE-SingleContainer { {UEIdentityIndexValueChoice-ExtIEs} }

}

UEIdentityIndexValueChoice-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

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 ::= {

{ ID id-MulticastF1UContextReferenceCU CRITICALITY reject EXTENSION MulticastF1UContextReferenceCU PRESENCE optional},

...

}

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-Setup-Item ::= SEQUENCE {

mRB-ID MRB-ID,

multicastF1UContextReferenceCU MulticastF1UContextReferenceCU OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { UE-MulticastMRBs-Setup-Item-ExtIEs } } OPTIONAL

}

UE-MulticastMRBs-Setup-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UE-MulticastMRBs-Setupnew-Item ::= SEQUENCE {

mRB-ID MRB-ID,

multicastF1UContextReferenceCU MulticastF1UContextReferenceCU,

iE-Extensions ProtocolExtensionContainer { { UE-MulticastMRBs-Setupnew-Item-ExtIEs } } OPTIONAL

}

UE-MulticastMRBs-Setupnew-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 ::= {

{ ID id-Source-MRB-ID CRITICALITY ignore EXTENSION MRB-ID PRESENCE optional },

...

}

UE-MulticastMRBs-ToBeSetup-atModify-Item ::= SEQUENCE {

mRB-ID MRB-ID,

mbsPTPRetransmissionTunnelRequired MBSPTPRetransmissionTunnelRequired OPTIONAL,

mbsPTPForwardingRequiredInformation MRB-ProgressInformation OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { UE-MulticastMRBs-ToBeSetup-atModify-Item-ExtIEs } } OPTIONAL

}

UE-MulticastMRBs-ToBeSetup-atModify-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UEPagingCapability ::= SEQUENCE {

iNACTIVEStatePODetermination ENUMERATED {supported, ...} OPTIONAL,

iE-Extension ProtocolExtensionContainer { { UEPagingCapability-ExtIEs} } OPTIONAL,

...

}

UEPagingCapability-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-RedCapIndication CRITICALITY ignore EXTENSION RedCapIndication PRESENCE optional },

...

}

UEReportingInformation::= SEQUENCE {

reportingAmount ENUMERATED {ma0, ma1, ma2, ma4, ma8, ma16, ma32, ma64},

reportingInterval ENUMERATED {none, one, two, four, eight, ten, sixteen, twenty, thirty-two, sixty-four, ...},

iE-extensions ProtocolExtensionContainer { { UEReportingInformation-ExtIEs } } OPTIONAL,

...

}

UEReportingInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UlTxDirectCurrentMoreCarrierInformation::= OCTET STRING

UL-AoA ::= SEQUENCE {

azimuthAoA INTEGER (0..3599),

zenithAoA INTEGER (0..1799) OPTIONAL,

lCS-to-GCS-Translation LCS-to-GCS-Translation OPTIONAL,

iE-extensions ProtocolExtensionContainer { { UL-AoA-ExtIEs } } OPTIONAL,

...

}

UL-AoA-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UL-BH-Non-UP-Traffic-Mapping ::= SEQUENCE {

uL-BH-Non-UP-Traffic-Mapping-List UL-BH-Non-UP-Traffic-Mapping-List,

iE-Extensions ProtocolExtensionContainer { { UL-BH-Non-UP-Traffic-Mapping-ExtIEs } } OPTIONAL

}

UL-BH-Non-UP-Traffic-Mapping-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UL-BH-Non-UP-Traffic-Mapping-List ::= SEQUENCE (SIZE(1..maxnoofNonUPTrafficMappings)) OF UL-BH-Non-UP-Traffic-Mapping-Item

UL-BH-Non-UP-Traffic-Mapping-Item ::= SEQUENCE {

nonUPTrafficType NonUPTrafficType,

bHInfo BHInfo,

iE-Extensions ProtocolExtensionContainer { { UL-BH-Non-UP-Traffic-Mapping-ItemExtIEs } } OPTIONAL

}

UL-BH-Non-UP-Traffic-Mapping-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

ULConfiguration ::= SEQUENCE {

uLUEConfiguration ULUEConfiguration,

iE-Extensions ProtocolExtensionContainer { { ULConfigurationExtIEs } } OPTIONAL,

...

}

ULConfigurationExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UL-GapFR2-Config ::= OCTET STRING

UL-RTOA-Measurement ::= SEQUENCE {

uL-RTOA-MeasurementItem UL-RTOA-MeasurementItem,

additionalPath-List AdditionalPath-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { UL-RTOA-Measurement-ExtIEs } } OPTIONAL

}

UL-RTOA-Measurement-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-ExtendedAdditionalPathList CRITICALITY ignore EXTENSION ExtendedAdditionalPathList PRESENCE optional}|

{ ID id-TRPRx-TEGInformation CRITICALITY ignore EXTENSION TRP-Rx-TEGInformation PRESENCE optional},

...

}

UL-RTOA-MeasurementItem ::= CHOICE {

k0 INTEGER (0..1970049),

k1 INTEGER (0..985025),

k2 INTEGER (0..492513),

k3 INTEGER (0..246257),

k4 INTEGER (0..123129),

k5 INTEGER (0..61565),

choice-extension ProtocolIE-SingleContainer { { UL-RTOA-MeasurementItem-ExtIEs } }

}

UL-RTOA-MeasurementItem-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

UL-SRS-RSRP ::= INTEGER (0..126)

UL-SRS-RSRPP ::= SEQUENCE {

firstPathRSRPP INTEGER (0..126),

iE-extensions ProtocolExtensionContainer { { UL-SRS-RSRPP-ExtIEs } } OPTIONAL,

...

}

UL-SRS-RSRPP-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

ULUEConfiguration ::= ENUMERATED {no-data, shared, only, ...}

UL-UP-TNL-Information-to-Update-List-Item ::= SEQUENCE {

uLUPTNLInformation UPTransportLayerInformation,

newULUPTNLInformation UPTransportLayerInformation OPTIONAL,

bHInfo BHInfo,

iE-Extensions ProtocolExtensionContainer { { UL-UP-TNL-Information-to-Update-List-ItemExtIEs } } OPTIONAL,

...

}

UL-UP-TNL-Information-to-Update-List-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UL-UP-TNL-Address-to-Update-List-Item ::= SEQUENCE {

oldIPAdress TransportLayerAddress,

newIPAdress TransportLayerAddress,

iE-Extensions ProtocolExtensionContainer { { UL-UP-TNL-Address-to-Update-List-ItemExtIEs } } OPTIONAL,

...

}

UL-UP-TNL-Address-to-Update-List-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

ULUPTNLInformation-ToBeSetup-List ::= SEQUENCE (SIZE(1..maxnoofULUPTNLInformation)) OF ULUPTNLInformation-ToBeSetup-Item

ULUPTNLInformation-ToBeSetup-Item ::=SEQUENCE {

uLUPTNLInformation UPTransportLayerInformation,

iE-Extensions ProtocolExtensionContainer { { ULUPTNLInformation-ToBeSetup-ItemExtIEs } } OPTIONAL,

...

}

ULUPTNLInformation-ToBeSetup-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

{ ID id-BHInfo CRITICALITY ignore EXTENSION BHInfo PRESENCE optional }|

{ ID id-DRBMappingInfo CRITICALITY ignore EXTENSION UuRLCChannelID PRESENCE optional },

...

}

Uncertainty ::= INTEGER (0..32767, ...)

UplinkChannelBW-PerSCS-List ::= SEQUENCE (SIZE (1..maxnoSCSs)) OF SCS-SpecificCarrier

UplinkTxDirectCurrentListInformation ::= OCTET STRING

UplinkTxDirectCurrentTwoCarrierListInfo ::= OCTET STRING

UPTransportLayerInformation ::= CHOICE {

gTPTunnel GTPTunnel,

choice-extension ProtocolIE-SingleContainer { { UPTransportLayerInformation-ExtIEs} }

}

UPTransportLayerInformation-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

URI-address ::= VisibleString

Uncertainty-range-AoA ::= INTEGER (0..3599)

Uncertainty-range-ZoA ::= INTEGER (0..1799)

UuRLCChannelID ::= INTEGER (1..32)

UuRLCChannelQoSInformation ::= CHOICE {

uuRLCChannelQoS QoSFlowLevelQoSParameters,

uuControlPlaneTrafficType ENUMERATED {srb0,srb1,srb2,...},

choice-extension ProtocolIE-SingleContainer { { UuRLCChannelQoSInformation-ExtIEs} }

}

UuRLCChannelQoSInformation-ExtIEs F1AP-PROTOCOL-IES ::= {

...

}

UuRLCChannelToBeSetupList ::= SEQUENCE (SIZE(1.. maxnoofUuRLCChannels)) OF UuRLCChannelToBeSetupItem

UuRLCChannelToBeSetupItem ::= SEQUENCE {

uuRLCChannelID UuRLCChannelID,

uuRLCChannelQoSInformation UuRLCChannelQoSInformation,

rLCMode RLCMode,

iE-Extensions ProtocolExtensionContainer { { UuRLCChannelToBeSetupItem-ExtIEs } } OPTIONAL,

...

}

UuRLCChannelToBeSetupItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UuRLCChannelToBeModifiedList ::= SEQUENCE (SIZE(1.. maxnoofUuRLCChannels)) OF UuRLCChannelToBeModifiedItem

UuRLCChannelToBeModifiedItem ::= SEQUENCE {

uuRLCChannelID UuRLCChannelID,

uuRLCChannelQoSInformation UuRLCChannelQoSInformation OPTIONAL,

rLCMode RLCMode OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { UuRLCChannelToBeModifiedItem-ExtIEs } } OPTIONAL,

...

}

UuRLCChannelToBeModifiedItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UuRLCChannelToBeReleasedList ::= SEQUENCE (SIZE(1.. maxnoofUuRLCChannels)) OF UuRLCChannelToBeReleasedItem

UuRLCChannelToBeReleasedItem ::= SEQUENCE {

uuRLCChannelID UuRLCChannelID,

iE-Extensions ProtocolExtensionContainer { { UuRLCChannelToBeReleasedItem-ExtIEs } } OPTIONAL,

...

}

UuRLCChannelToBeReleasedItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UuRLCChannelSetupList ::= SEQUENCE (SIZE(1.. maxnoofUuRLCChannels)) OF UuRLCChannelSetupItem

UuRLCChannelSetupItem ::= SEQUENCE {

uuRLCChannelID UuRLCChannelID,

iE-Extensions ProtocolExtensionContainer { { UuRLCChannelSetupItem-ExtIEs } } OPTIONAL,

...

}

UuRLCChannelSetupItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UuRLCChannelFailedToBeSetupList ::= SEQUENCE (SIZE(1.. maxnoofUuRLCChannels)) OF UuRLCChannelFailedToBeSetupItem

UuRLCChannelFailedToBeSetupItem ::= SEQUENCE {

uuRLCChannelID UuRLCChannelID,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { UuRLCChannelFailedToBeSetupItem-ExtIEs } } OPTIONAL,

...

}

UuRLCChannelFailedToBeSetupItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UuRLCChannelModifiedList ::= SEQUENCE (SIZE(1.. maxnoofUuRLCChannels)) OF UuRLCChannelModifiedItem

UuRLCChannelModifiedItem ::= SEQUENCE {

uuRLCChannelID UuRLCChannelID,

iE-Extensions ProtocolExtensionContainer { { UuRLCChannelModifiedItem-ExtIEs } } OPTIONAL,

...

}

UuRLCChannelModifiedItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UuRLCChannelFailedToBeModifiedList ::= SEQUENCE (SIZE(1.. maxnoofUuRLCChannels)) OF UuRLCChannelFailedToBeModifiedItem

UuRLCChannelFailedToBeModifiedItem ::= SEQUENCE {

uuRLCChannelID UuRLCChannelID,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { UuRLCChannelFailedToBeModifiedItem-ExtIEs } } OPTIONAL,

...

}

UuRLCChannelFailedToBeModifiedItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UuRLCChannelRequiredToBeModifiedList ::= SEQUENCE (SIZE(1.. maxnoofUuRLCChannels)) OF UuRLCChannelRequiredToBeModifiedItem

UuRLCChannelRequiredToBeModifiedItem ::= SEQUENCE {

uuRLCChannelID UuRLCChannelID,

iE-Extensions ProtocolExtensionContainer { { UuRLCChannelRequiredToBeModifiedItem-ExtIEs } } OPTIONAL,

...

}

UuRLCChannelRequiredToBeModifiedItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

UuRLCChannelRequiredToBeReleasedList ::= SEQUENCE (SIZE(1.. maxnoofUuRLCChannels)) OF UuRLCChannelRequiredToBeReleasedItem

UuRLCChannelRequiredToBeReleasedItem ::= SEQUENCE {

uuRLCChannelID UuRLCChannelID,

iE-Extensions ProtocolExtensionContainer { { UuRLCChannelRequiredToBeReleasedItem-ExtIEs } } OPTIONAL,

...

}

UuRLCChannelRequiredToBeReleasedItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

-- V

VictimgNBSetID ::= SEQUENCE {

victimgNBSetID GNBSetID,

iE-Extensions ProtocolExtensionContainer { { VictimgNBSetID-ExtIEs } } OPTIONAL

}

VictimgNBSetID-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

VehicleUE ::= ENUMERATED {

authorized,

not-authorized,

...

}

PedestrianUE ::= ENUMERATED {

authorized,

not-authorized,

...

}

-- W

-- X

-- Y

-- Z

ZoAInformation ::= SEQUENCE {

zenithAoA INTEGER (0..1799),

lCS-to-GCS-Translation LCS-to-GCS-Translation OPTIONAL,

iE-extensions ProtocolExtensionContainer { { ZoAInformation-ExtIEs } } OPTIONAL,

...

}

ZoAInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

END

-- ASN1STOP

### 9.4.6 Common Definitions

-- ASN1START

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Common definitions

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

F1AP-CommonDataTypes {

itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)

ngran-access (22) modules (3) f1ap (3) version1 (1) f1ap-CommonDataTypes (3) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

Criticality ::= ENUMERATED { reject, ignore, notify }

Presence ::= ENUMERATED { optional, conditional, mandatory }

PrivateIE-ID ::= CHOICE {

local INTEGER (0..65535),

global OBJECT IDENTIFIER

}

ProcedureCode ::= INTEGER (0..255)

ProtocolExtensionID ::= INTEGER (0..65535)

ProtocolIE-ID ::= INTEGER (0..65535)

TriggeringMessage ::= ENUMERATED { initiating-message, successful-outcome, unsuccessful-outcome }

END

-- ASN1STOP

### 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

id-PosSystemInformationDeliveryCommand ProcedureCode ::= 81

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Extension constants

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

maxPrivateIEs INTEGER ::= 65535

maxProtocolExtensions INTEGER ::= 65535

maxProtocolIEs INTEGER ::= 65535

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Lists

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

maxNRARFCN INTEGER ::= 3279165

maxnoofErrors INTEGER ::= 256

maxnoofIndividualF1ConnectionsToReset INTEGER ::= 65536

maxCellingNBDU INTEGER ::= 512

maxnoofSCells INTEGER ::= 32

maxnoofSRBs INTEGER ::= 8

maxnoofDRBs INTEGER ::= 64

maxnoofULUPTNLInformation INTEGER ::= 2

maxnoofDLUPTNLInformation INTEGER ::= 2

maxnoofBPLMNs INTEGER ::= 6

maxnoofCandidateSpCells INTEGER ::= 64

maxnoofPotentialSpCells INTEGER ::= 64

maxnoofNrCellBands INTEGER ::= 32

maxnoofSIBTypes INTEGER ::= 32

maxnoofSITypes INTEGER ::= 32

maxnoofPagingCells INTEGER ::= 512

maxnoofTNLAssociations INTEGER ::= 32

maxnoofQoSFlows INTEGER ::= 64

maxnoofSliceItems INTEGER ::= 1024

maxCellineNB INTEGER ::= 256

maxnoofExtendedBPLMNs INTEGER ::= 6

maxnoofUEIDs INTEGER ::= 65536

maxnoofBPLMNsNR INTEGER ::= 12

maxnoofUACPLMNs INTEGER ::= 12

maxnoofUACperPLMN INTEGER ::= 64

maxnoofAdditionalSIBs INTEGER ::= 63

maxnoofslots INTEGER ::= 5120

maxnoofTLAs INTEGER ::= 16

maxnoofGTPTLAs INTEGER ::= 16

maxnoofBHRLCChannels INTEGER ::= 65536

maxnoofRoutingEntries INTEGER ::= 1024

maxnoofIABSTCInfo INTEGER ::= 45

maxnoofSymbols INTEGER ::= 14

maxnoofServingCells INTEGER ::= 32

maxnoofDUFSlots INTEGER ::= 320

maxnoofHSNASlots INTEGER ::= 5120

maxnoofServedCellsIAB INTEGER ::= 512

maxnoofChildIABNodes INTEGER ::= 1024

maxnoofNonUPTrafficMappings INTEGER ::= 32

maxnoofTLAsIAB INTEGER ::= 1024

maxnoofMappingEntries INTEGER ::= 67108864

maxnoofDSInfo INTEGER ::= 64

maxnoofEgressLinks INTEGER ::= 2

maxnoofULUPTNLInformationforIAB INTEGER ::= 32678

maxnoofUPTNLAddresses INTEGER ::= 8

maxnoofSLDRBs INTEGER ::= 512

maxnoofQoSParaSets INTEGER ::= 8

maxnoofPC5QoSFlows INTEGER ::= 2048

maxnoofSSBAreas INTEGER ::= 64

maxnoofPhysicalResourceBlocks INTEGER ::= 275

maxnoofPhysicalResourceBlocks-1 INTEGER ::= 274

maxnoofPRACHconfigs INTEGER ::= 16

maxnoofRACHReports INTEGER ::= 64

maxnoofRLFReports INTEGER ::= 64

maxnoofAdditionalPDCPDuplicationTNL INTEGER ::= 2

maxnoofRLCDuplicationState INTEGER ::= 3

maxnoofCHOcells INTEGER ::= 8

maxnoofMDTPLMNs INTEGER ::= 16

maxnoofCAGsupported INTEGER ::= 12

maxnoofNIDsupported INTEGER ::= 12

maxnoofNRSCSs INTEGER ::= 5

maxnoofExtSliceItems INTEGER ::= 65535

maxnoofPosMeas INTEGER ::= 16384

maxnoofTRPInfoTypes INTEGER ::= 64

maxnoofTRPs INTEGER ::= 65535

maxnoofSRSTriggerStates INTEGER ::= 3

maxnoofSpatialRelations INTEGER ::= 64

maxnoBcastCell INTEGER ::= 16384

maxnoofAngleInfo INTEGER ::= 65535

maxnooflcs-gcs-translation INTEGER ::= 3

maxnoofPath INTEGER ::= 2

maxnoofMeasE-CID INTEGER ::= 64

maxnoofSSBs INTEGER ::= 255

maxnoSRS-ResourceSets INTEGER ::= 16

maxnoSRS-ResourcePerSet INTEGER ::= 16

maxnoSRS-Carriers INTEGER ::= 32

maxnoSCSs INTEGER ::= 5

maxnoSRS-Resources INTEGER ::= 64

maxnoSRS-PosResources INTEGER ::= 64

maxnoSRS-PosResourceSets INTEGER ::= 16

maxnoSRS-PosResourcePerSet INTEGER ::= 16

maxnoofPRS-ResourceSets INTEGER ::= 2

maxnoofPRS-ResourcesPerSet INTEGER ::= 64

maxNoOfMeasTRPs INTEGER ::= 64

maxnoofPRSresourceSets INTEGER ::= 8

maxnoofPRSresources INTEGER ::= 64

maxnoofSuccessfulHOReports INTEGER ::= 64

maxnoofNR-UChannelIDs INTEGER ::= 16

maxServedCellforSON INTEGER ::= 256

maxNeighbourCellforSON INTEGER ::= 32

maxAffectedCells INTEGER ::= 32

maxnoofMRBs INTEGER ::= 32

maxnoofMBSQoSFlows INTEGER ::= 64

maxnoofMBSFSAs INTEGER ::= 256

maxnoofUEIDforPaging INTEGER ::= 4096

maxnoofCellsforMBS INTEGER ::= 512

maxnoofTAIforMBS INTEGER ::= 512

maxnoofMBSAreaSessionIDs INTEGER ::= 256

maxnoofMBSServiceAreaInformation INTEGER ::= 256

maxnoofIABCongInd INTEGER ::= 1024

maxnoofNeighbourNodeCellsIAB INTEGER ::= 1024

maxnoofRBsetsPerCell INTEGER ::= 8

maxnoofRBsetsPerCell-1 INTEGER ::= 7

maxnoofMeasPDC INTEGER ::= 16

maxnoARPs INTEGER ::= 16

maxnoofULAoAs INTEGER ::= 8

maxNoPathExtended INTEGER ::= 8

maxnoTRPTEGs INTEGER ::= 8

maxFreqLayers INTEGER ::= 4

maxNumResourcesPerAngle INTEGER ::= 24

maxnoAzimuthAngles INTEGER ::= 3600

maxnoElevationAngles INTEGER ::= 1801

maxnoofPRSTRPs INTEGER ::= 256

maxnoofQoEInformation INTEGER ::= 16

maxnoofUuRLCChannels INTEGER ::= 32

maxnoofPC5RLCChannels INTEGER ::= 512

maxnoofSMBRValues INTEGER ::= 8

maxnoofMRBsforUE INTEGER ::= 64

maxnoofMBSSessionsofUE INTEGER ::= 256

maxnoofSLdestinations INTEGER ::= 32

maxnoofNSAGs INTEGER ::= 256

maxnoofSDTBearers INTEGER ::= 72

maxnoofServingCellMOs INTEGER ::= 16

maxNrofBWPs INTEGER ::= 8

maxnoofPosSITypes INTEGER ::= 32

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- IEs

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

id-Cause ProtocolIE-ID ::= 0

id-Cells-Failed-to-be-Activated-List ProtocolIE-ID ::= 1

id-Cells-Failed-to-be-Activated-List-Item ProtocolIE-ID ::= 2

id-Cells-to-be-Activated-List ProtocolIE-ID ::= 3

id-Cells-to-be-Activated-List-Item ProtocolIE-ID ::= 4

id-Cells-to-be-Deactivated-List ProtocolIE-ID ::= 5

id-Cells-to-be-Deactivated-List-Item ProtocolIE-ID ::= 6

id-CriticalityDiagnostics ProtocolIE-ID ::= 7

id-CUtoDURRCInformation ProtocolIE-ID ::= 9

id-DRBs-FailedToBeModified-Item ProtocolIE-ID ::= 12

id-DRBs-FailedToBeModified-List ProtocolIE-ID ::= 13

id-DRBs-FailedToBeSetup-Item ProtocolIE-ID ::= 14

id-DRBs-FailedToBeSetup-List ProtocolIE-ID ::= 15

id-DRBs-FailedToBeSetupMod-Item ProtocolIE-ID ::= 16

id-DRBs-FailedToBeSetupMod-List ProtocolIE-ID ::= 17

id-DRBs-ModifiedConf-Item ProtocolIE-ID ::= 18

id-DRBs-ModifiedConf-List ProtocolIE-ID ::= 19

id-DRBs-Modified-Item ProtocolIE-ID ::= 20

id-DRBs-Modified-List ProtocolIE-ID ::= 21

id-DRBs-Required-ToBeModified-Item ProtocolIE-ID ::= 22

id-DRBs-Required-ToBeModified-List ProtocolIE-ID ::= 23

id-DRBs-Required-ToBeReleased-Item ProtocolIE-ID ::= 24

id-DRBs-Required-ToBeReleased-List ProtocolIE-ID ::= 25

id-DRBs-Setup-Item ProtocolIE-ID ::= 26

id-DRBs-Setup-List ProtocolIE-ID ::= 27

id-DRBs-SetupMod-Item ProtocolIE-ID ::= 28

id-DRBs-SetupMod-List ProtocolIE-ID ::= 29

id-DRBs-ToBeModified-Item ProtocolIE-ID ::= 30

id-DRBs-ToBeModified-List ProtocolIE-ID ::= 31

id-DRBs-ToBeReleased-Item ProtocolIE-ID ::= 32

id-DRBs-ToBeReleased-List ProtocolIE-ID ::= 33

id-DRBs-ToBeSetup-Item ProtocolIE-ID ::= 34

id-DRBs-ToBeSetup-List ProtocolIE-ID ::= 35

id-DRBs-ToBeSetupMod-Item ProtocolIE-ID ::= 36

id-DRBs-ToBeSetupMod-List ProtocolIE-ID ::= 37

id-DRXCycle ProtocolIE-ID ::= 38

id-DUtoCURRCInformation ProtocolIE-ID ::= 39

id-gNB-CU-UE-F1AP-ID ProtocolIE-ID ::= 40

id-gNB-DU-UE-F1AP-ID ProtocolIE-ID ::= 41

id-gNB-DU-ID ProtocolIE-ID ::= 42

id-GNB-DU-Served-Cells-Item ProtocolIE-ID ::= 43

id-gNB-DU-Served-Cells-List ProtocolIE-ID ::= 44

id-gNB-DU-Name ProtocolIE-ID ::= 45

id-NRCellID ProtocolIE-ID ::= 46

id-oldgNB-DU-UE-F1AP-ID ProtocolIE-ID ::= 47

id-ResetType ProtocolIE-ID ::= 48

id-ResourceCoordinationTransferContainer ProtocolIE-ID ::= 49

id-RRCContainer ProtocolIE-ID ::= 50

id-SCell-ToBeRemoved-Item ProtocolIE-ID ::= 51

id-SCell-ToBeRemoved-List ProtocolIE-ID ::= 52

id-SCell-ToBeSetup-Item ProtocolIE-ID ::= 53

id-SCell-ToBeSetup-List ProtocolIE-ID ::= 54

id-SCell-ToBeSetupMod-Item ProtocolIE-ID ::= 55

id-SCell-ToBeSetupMod-List ProtocolIE-ID ::= 56

id-Served-Cells-To-Add-Item ProtocolIE-ID ::= 57

id-Served-Cells-To-Add-List ProtocolIE-ID ::= 58

id-Served-Cells-To-Delete-Item ProtocolIE-ID ::= 59

id-Served-Cells-To-Delete-List ProtocolIE-ID ::= 60

id-Served-Cells-To-Modify-Item ProtocolIE-ID ::= 61

id-Served-Cells-To-Modify-List ProtocolIE-ID ::= 62

id-SpCell-ID ProtocolIE-ID ::= 63

id-SRBID ProtocolIE-ID ::= 64

id-SRBs-FailedToBeSetup-Item ProtocolIE-ID ::= 65

id-SRBs-FailedToBeSetup-List ProtocolIE-ID ::= 66

id-SRBs-FailedToBeSetupMod-Item ProtocolIE-ID ::= 67

id-SRBs-FailedToBeSetupMod-List ProtocolIE-ID ::= 68

id-SRBs-Required-ToBeReleased-Item ProtocolIE-ID ::= 69

id-SRBs-Required-ToBeReleased-List ProtocolIE-ID ::= 70

id-SRBs-ToBeReleased-Item ProtocolIE-ID ::= 71

id-SRBs-ToBeReleased-List ProtocolIE-ID ::= 72

id-SRBs-ToBeSetup-Item ProtocolIE-ID ::= 73

id-SRBs-ToBeSetup-List ProtocolIE-ID ::= 74

id-SRBs-ToBeSetupMod-Item ProtocolIE-ID ::= 75

id-SRBs-ToBeSetupMod-List ProtocolIE-ID ::= 76

id-TimeToWait ProtocolIE-ID ::= 77

id-TransactionID ProtocolIE-ID ::= 78

id-TransmissionActionIndicator ProtocolIE-ID ::= 79

id-UE-associatedLogicalF1-ConnectionItem ProtocolIE-ID ::= 80

id-UE-associatedLogicalF1-ConnectionListResAck ProtocolIE-ID ::= 81

id-gNB-CU-Name ProtocolIE-ID ::= 82

id-SCell-FailedtoSetup-List ProtocolIE-ID ::= 83

id-SCell-FailedtoSetup-Item ProtocolIE-ID ::= 84

id-SCell-FailedtoSetupMod-List ProtocolIE-ID ::= 85

id-SCell-FailedtoSetupMod-Item ProtocolIE-ID ::= 86

id-RRCReconfigurationCompleteIndicator ProtocolIE-ID ::= 87

id-Cells-Status-Item ProtocolIE-ID ::= 88

id-Cells-Status-List ProtocolIE-ID ::= 89

id-Candidate-SpCell-List ProtocolIE-ID ::= 90

id-Candidate-SpCell-Item ProtocolIE-ID ::= 91

id-Potential-SpCell-List ProtocolIE-ID ::= 92

id-Potential-SpCell-Item ProtocolIE-ID ::= 93

id-FullConfiguration ProtocolIE-ID ::= 94

id-C-RNTI ProtocolIE-ID ::= 95

id-SpCellULConfigured ProtocolIE-ID ::= 96

id-InactivityMonitoringRequest ProtocolIE-ID ::= 97

id-InactivityMonitoringResponse ProtocolIE-ID ::= 98

id-DRB-Activity-Item ProtocolIE-ID ::= 99

id-DRB-Activity-List ProtocolIE-ID ::= 100

id-EUTRA-NR-CellResourceCoordinationReq-Container ProtocolIE-ID ::= 101

id-EUTRA-NR-CellResourceCoordinationReqAck-Container ProtocolIE-ID ::= 102

id-Protected-EUTRA-Resources-List ProtocolIE-ID ::= 105

id-RequestType ProtocolIE-ID ::= 106

id-ServCellIndex ProtocolIE-ID ::= 107

id-RAT-FrequencyPriorityInformation ProtocolIE-ID ::= 108

id-ExecuteDuplication ProtocolIE-ID ::= 109

id-NRCGI ProtocolIE-ID ::= 111

id-PagingCell-Item ProtocolIE-ID ::= 112

id-PagingCell-List ProtocolIE-ID ::= 113

id-PagingDRX ProtocolIE-ID ::= 114

id-PagingPriority ProtocolIE-ID ::= 115

id-SItype-List ProtocolIE-ID ::= 116

id-UEIdentityIndexValue ProtocolIE-ID ::= 117

id-gNB-CUSystemInformation ProtocolIE-ID ::= 118

id-HandoverPreparationInformation ProtocolIE-ID ::= 119

id-GNB-CU-TNL-Association-To-Add-Item ProtocolIE-ID ::= 120

id-GNB-CU-TNL-Association-To-Add-List ProtocolIE-ID ::= 121

id-GNB-CU-TNL-Association-To-Remove-Item ProtocolIE-ID ::= 122

id-GNB-CU-TNL-Association-To-Remove-List ProtocolIE-ID ::= 123

id-GNB-CU-TNL-Association-To-Update-Item ProtocolIE-ID ::= 124

id-GNB-CU-TNL-Association-To-Update-List ProtocolIE-ID ::= 125

id-MaskedIMEISV ProtocolIE-ID ::= 126

id-PagingIdentity ProtocolIE-ID ::= 127

id-DUtoCURRCContainer ProtocolIE-ID ::= 128

id-Cells-to-be-Barred-List ProtocolIE-ID ::= 129

id-Cells-to-be-Barred-Item ProtocolIE-ID ::= 130

id-TAISliceSupportList ProtocolIE-ID ::= 131

id-GNB-CU-TNL-Association-Setup-List ProtocolIE-ID ::= 132

id-GNB-CU-TNL-Association-Setup-Item ProtocolIE-ID ::= 133

id-GNB-CU-TNL-Association-Failed-To-Setup-List ProtocolIE-ID ::= 134

id-GNB-CU-TNL-Association-Failed-To-Setup-Item ProtocolIE-ID ::= 135

id-DRB-Notify-Item ProtocolIE-ID ::= 136

id-DRB-Notify-List ProtocolIE-ID ::= 137

id-NotficationControl ProtocolIE-ID ::= 138

id-RANAC ProtocolIE-ID ::= 139

id-PWSSystemInformation ProtocolIE-ID ::= 140

id-RepetitionPeriod ProtocolIE-ID ::= 141

id-NumberofBroadcastRequest ProtocolIE-ID ::= 142

id-Cells-To-Be-Broadcast-List ProtocolIE-ID ::= 144

id-Cells-To-Be-Broadcast-Item ProtocolIE-ID ::= 145

id-Cells-Broadcast-Completed-List ProtocolIE-ID ::= 146

id-Cells-Broadcast-Completed-Item ProtocolIE-ID ::= 147

id-Broadcast-To-Be-Cancelled-List ProtocolIE-ID ::= 148

id-Broadcast-To-Be-Cancelled-Item ProtocolIE-ID ::= 149

id-Cells-Broadcast-Cancelled-List ProtocolIE-ID ::= 150

id-Cells-Broadcast-Cancelled-Item ProtocolIE-ID ::= 151

id-NR-CGI-List-For-Restart-List ProtocolIE-ID ::= 152

id-NR-CGI-List-For-Restart-Item ProtocolIE-ID ::= 153

id-PWS-Failed-NR-CGI-List ProtocolIE-ID ::= 154

id-PWS-Failed-NR-CGI-Item ProtocolIE-ID ::= 155

id-ConfirmedUEID ProtocolIE-ID ::= 156

id-Cancel-all-Warning-Messages-Indicator ProtocolIE-ID ::= 157

id-GNB-DU-UE-AMBR-UL ProtocolIE-ID ::= 158

id-DRXConfigurationIndicator ProtocolIE-ID ::= 159

id-RLC-Status ProtocolIE-ID ::= 160

id-DLPDCPSNLength ProtocolIE-ID ::= 161

id-GNB-DUConfigurationQuery ProtocolIE-ID ::= 162

id-MeasurementTimingConfiguration ProtocolIE-ID ::= 163

id-DRB-Information ProtocolIE-ID ::= 164

id-ServingPLMN ProtocolIE-ID ::= 165

id-Protected-EUTRA-Resources-Item ProtocolIE-ID ::= 168

id-GNB-CU-RRC-Version ProtocolIE-ID ::= 170

id-GNB-DU-RRC-Version ProtocolIE-ID ::= 171

id-GNBDUOverloadInformation ProtocolIE-ID ::= 172

id-CellGroupConfig ProtocolIE-ID ::= 173

id-RLCFailureIndication ProtocolIE-ID ::= 174

id-UplinkTxDirectCurrentListInformation ProtocolIE-ID ::= 175

id-DC-Based-Duplication-Configured ProtocolIE-ID ::= 176

id-DC-Based-Duplication-Activation ProtocolIE-ID ::= 177

id-SULAccessIndication ProtocolIE-ID ::= 178

id-AvailablePLMNList ProtocolIE-ID ::= 179

id-PDUSessionID ProtocolIE-ID ::= 180

id-ULPDUSessionAggregateMaximumBitRate ProtocolIE-ID ::= 181

id-ServingCellMO ProtocolIE-ID ::= 182

id-QoSFlowMappingIndication ProtocolIE-ID ::= 183

id-RRCDeliveryStatusRequest ProtocolIE-ID ::= 184

id-RRCDeliveryStatus ProtocolIE-ID ::= 185

id-BearerTypeChange ProtocolIE-ID ::= 186

id-RLCMode ProtocolIE-ID ::= 187

id-Duplication-Activation ProtocolIE-ID ::= 188

id-Dedicated-SIDelivery-NeededUE-List ProtocolIE-ID ::= 189

id-Dedicated-SIDelivery-NeededUE-Item ProtocolIE-ID ::= 190

id-DRX-LongCycleStartOffset ProtocolIE-ID ::= 191

id-ULPDCPSNLength ProtocolIE-ID ::= 192

id-SelectedBandCombinationIndex ProtocolIE-ID ::= 193

id-SelectedFeatureSetEntryIndex ProtocolIE-ID ::= 194

id-ResourceCoordinationTransferInformation ProtocolIE-ID ::= 195

id-ExtendedServedPLMNs-List ProtocolIE-ID ::= 196

id-ExtendedAvailablePLMN-List ProtocolIE-ID ::= 197

id-Associated-SCell-List ProtocolIE-ID ::= 198

id-latest-RRC-Version-Enhanced ProtocolIE-ID ::= 199

id-Associated-SCell-Item ProtocolIE-ID ::= 200

id-Cell-Direction ProtocolIE-ID ::= 201

id-SRBs-Setup-List ProtocolIE-ID ::= 202

id-SRBs-Setup-Item ProtocolIE-ID ::= 203

id-SRBs-SetupMod-List ProtocolIE-ID ::= 204

id-SRBs-SetupMod-Item ProtocolIE-ID ::= 205

id-SRBs-Modified-List ProtocolIE-ID ::= 206

id-SRBs-Modified-Item ProtocolIE-ID ::= 207

id-Ph-InfoSCG ProtocolIE-ID ::= 208

id-RequestedBandCombinationIndex ProtocolIE-ID ::= 209

id-RequestedFeatureSetEntryIndex ProtocolIE-ID ::= 210

id-RequestedP-MaxFR2 ProtocolIE-ID ::= 211

id-DRX-Config ProtocolIE-ID ::= 212

id-IgnoreResourceCoordinationContainer ProtocolIE-ID ::= 213

id-UEAssistanceInformation ProtocolIE-ID ::= 214

id-NeedforGap ProtocolIE-ID ::= 215

id-PagingOrigin ProtocolIE-ID ::= 216

id-new-gNB-CU-UE-F1AP-ID ProtocolIE-ID ::= 217

id-RedirectedRRCmessage ProtocolIE-ID ::= 218

id-new-gNB-DU-UE-F1AP-ID ProtocolIE-ID ::= 219

id-NotificationInformation ProtocolIE-ID ::= 220

id-PLMNAssistanceInfoForNetShar ProtocolIE-ID ::= 221

id-UEContextNotRetrievable ProtocolIE-ID ::= 222

id-BPLMN-ID-Info-List ProtocolIE-ID ::= 223

id-SelectedPLMNID ProtocolIE-ID ::= 224

id-UAC-Assistance-Info ProtocolIE-ID ::= 225

id-RANUEID ProtocolIE-ID ::= 226

id-GNB-DU-TNL-Association-To-Remove-Item ProtocolIE-ID ::= 227

id-GNB-DU-TNL-Association-To-Remove-List ProtocolIE-ID ::= 228

id-TNLAssociationTransportLayerAddressgNBDU ProtocolIE-ID ::= 229

id-portNumber ProtocolIE-ID ::= 230

id-AdditionalSIBMessageList ProtocolIE-ID ::= 231

id-Cell-Type ProtocolIE-ID ::= 232

id-IgnorePRACHConfiguration ProtocolIE-ID ::= 233

id-CG-Config ProtocolIE-ID ::= 234

id-PDCCH-BlindDetectionSCG ProtocolIE-ID ::= 235

id-Requested-PDCCH-BlindDetectionSCG ProtocolIE-ID ::= 236

id-Ph-InfoMCG ProtocolIE-ID ::= 237

id-MeasGapSharingConfig ProtocolIE-ID ::= 238

id-systemInformationAreaID ProtocolIE-ID ::= 239

id-areaScope ProtocolIE-ID ::= 240

id-RRCContainer-RRCSetupComplete ProtocolIE-ID ::= 241

id-TraceActivation ProtocolIE-ID ::= 242

id-TraceID ProtocolIE-ID ::= 243

id-Neighbour-Cell-Information-List ProtocolIE-ID ::= 244

id-SymbolAllocInSlot ProtocolIE-ID ::= 246

id-NumDLULSymbols ProtocolIE-ID ::= 247

id-AdditionalRRMPriorityIndex ProtocolIE-ID ::= 248

id-DUCURadioInformationType ProtocolIE-ID ::= 249

id-CUDURadioInformationType ProtocolIE-ID ::= 250

id-AggressorgNBSetID ProtocolIE-ID ::= 251

id-VictimgNBSetID ProtocolIE-ID ::= 252

id-LowerLayerPresenceStatusChange ProtocolIE-ID ::= 253

id-Transport-Layer-Address-Info ProtocolIE-ID ::= 254

id-Neighbour-Cell-Information-Item ProtocolIE-ID ::= 255

id-IntendedTDD-DL-ULConfig ProtocolIE-ID ::= 256

id-QosMonitoringRequest ProtocolIE-ID ::= 257

id-BHChannels-ToBeSetup-List ProtocolIE-ID ::= 258

id-BHChannels-ToBeSetup-Item ProtocolIE-ID ::= 259

id-BHChannels-Setup-List ProtocolIE-ID ::= 260

id-BHChannels-Setup-Item ProtocolIE-ID ::= 261

id-BHChannels-ToBeModified-Item ProtocolIE-ID ::= 262

id-BHChannels-ToBeModified-List ProtocolIE-ID ::= 263

id-BHChannels-ToBeReleased-Item ProtocolIE-ID ::= 264

id-BHChannels-ToBeReleased-List ProtocolIE-ID ::= 265

id-BHChannels-ToBeSetupMod-Item ProtocolIE-ID ::= 266

id-BHChannels-ToBeSetupMod-List ProtocolIE-ID ::= 267

id-BHChannels-FailedToBeModified-Item ProtocolIE-ID ::= 268

id-BHChannels-FailedToBeModified-List ProtocolIE-ID ::= 269

id-BHChannels-FailedToBeSetupMod-Item ProtocolIE-ID ::= 270

id-BHChannels-FailedToBeSetupMod-List ProtocolIE-ID ::= 271

id-BHChannels-Modified-Item ProtocolIE-ID ::= 272

id-BHChannels-Modified-List ProtocolIE-ID ::= 273

id-BHChannels-SetupMod-Item ProtocolIE-ID ::= 274

id-BHChannels-SetupMod-List ProtocolIE-ID ::= 275

id-BHChannels-Required-ToBeReleased-Item ProtocolIE-ID ::= 276

id-BHChannels-Required-ToBeReleased-List ProtocolIE-ID ::= 277

id-BHChannels-FailedToBeSetup-Item ProtocolIE-ID ::= 278

id-BHChannels-FailedToBeSetup-List ProtocolIE-ID ::= 279

id-BHInfo ProtocolIE-ID ::= 280

id-BAPAddress ProtocolIE-ID ::= 281

id-ConfiguredBAPAddress ProtocolIE-ID ::= 282

id-BH-Routing-Information-Added-List ProtocolIE-ID ::= 283

id-BH-Routing-Information-Added-List-Item ProtocolIE-ID ::= 284

id-BH-Routing-Information-Removed-List ProtocolIE-ID ::= 285

id-BH-Routing-Information-Removed-List-Item ProtocolIE-ID ::= 286

id-UL-BH-Non-UP-Traffic-Mapping ProtocolIE-ID ::= 287

id-Activated-Cells-to-be-Updated-List ProtocolIE-ID ::= 288

id-Child-Nodes-List ProtocolIE-ID ::= 289

id-IAB-Info-IAB-DU ProtocolIE-ID ::= 290

id-IAB-Info-IAB-donor-CU ProtocolIE-ID ::= 291

id-IAB-TNL-Addresses-To-Remove-List ProtocolIE-ID ::= 292

id-IAB-TNL-Addresses-To-Remove-Item ProtocolIE-ID ::= 293

id-IAB-Allocated-TNL-Address-List ProtocolIE-ID ::= 294

id-IAB-Allocated-TNL-Address-Item ProtocolIE-ID ::= 295

id-IABIPv6RequestType ProtocolIE-ID ::= 296

id-IABv4AddressesRequested ProtocolIE-ID ::= 297

id-IAB-Barred ProtocolIE-ID ::= 298

id-TrafficMappingInformation ProtocolIE-ID ::= 299

id-UL-UP-TNL-Information-to-Update-List ProtocolIE-ID ::= 300

id-UL-UP-TNL-Information-to-Update-List-Item ProtocolIE-ID ::= 301

id-UL-UP-TNL-Address-to-Update-List ProtocolIE-ID ::= 302

id-UL-UP-TNL-Address-to-Update-List-Item ProtocolIE-ID ::= 303

id-DL-UP-TNL-Address-to-Update-List ProtocolIE-ID ::= 304

id-DL-UP-TNL-Address-to-Update-List-Item ProtocolIE-ID ::= 305

id-NRV2XServicesAuthorized ProtocolIE-ID ::= 306

id-LTEV2XServicesAuthorized ProtocolIE-ID ::= 307

id-NRUESidelinkAggregateMaximumBitrate ProtocolIE-ID ::= 308

id-LTEUESidelinkAggregateMaximumBitrate ProtocolIE-ID ::= 309

id-SIB12-message ProtocolIE-ID ::= 310

id-SIB13-message ProtocolIE-ID ::= 311

id-SIB14-message ProtocolIE-ID ::= 312

id-SLDRBs-FailedToBeModified-Item ProtocolIE-ID ::= 313

id-SLDRBs-FailedToBeModified-List ProtocolIE-ID ::= 314

id-SLDRBs-FailedToBeSetup-Item ProtocolIE-ID ::= 315

id-SLDRBs-FailedToBeSetup-List ProtocolIE-ID ::= 316

id-SLDRBs-Modified-Item ProtocolIE-ID ::= 317

id-SLDRBs-Modified-List ProtocolIE-ID ::= 318

id-SLDRBs-Required-ToBeModified-Item ProtocolIE-ID ::= 319

id-SLDRBs-Required-ToBeModified-List ProtocolIE-ID ::= 320

id-SLDRBs-Required-ToBeReleased-Item ProtocolIE-ID ::= 321

id-SLDRBs-Required-ToBeReleased-List ProtocolIE-ID ::= 322

id-SLDRBs-Setup-Item ProtocolIE-ID ::= 323

id-SLDRBs-Setup-List ProtocolIE-ID ::= 324

id-SLDRBs-ToBeModified-Item ProtocolIE-ID ::= 325

id-SLDRBs-ToBeModified-List ProtocolIE-ID ::= 326

id-SLDRBs-ToBeReleased-Item ProtocolIE-ID ::= 327

id-SLDRBs-ToBeReleased-List ProtocolIE-ID ::= 328

id-SLDRBs-ToBeSetup-Item ProtocolIE-ID ::= 329

id-SLDRBs-ToBeSetup-List ProtocolIE-ID ::= 330

id-SLDRBs-ToBeSetupMod-Item ProtocolIE-ID ::= 331

id-SLDRBs-ToBeSetupMod-List ProtocolIE-ID ::= 332

id-SLDRBs-SetupMod-List ProtocolIE-ID ::= 333

id-SLDRBs-FailedToBeSetupMod-List ProtocolIE-ID ::= 334

id-SLDRBs-SetupMod-Item ProtocolIE-ID ::= 335

id-SLDRBs-FailedToBeSetupMod-Item ProtocolIE-ID ::= 336

id-SLDRBs-ModifiedConf-List ProtocolIE-ID ::= 337

id-SLDRBs-ModifiedConf-Item ProtocolIE-ID ::= 338

id-UEAssistanceInformationEUTRA ProtocolIE-ID ::= 339

id-PC5LinkAMBR ProtocolIE-ID ::= 340

id-SL-PHY-MAC-RLC-Config ProtocolIE-ID ::= 341

id-SL-ConfigDedicatedEUTRA-Info ProtocolIE-ID ::= 342

id-AlternativeQoSParaSetList ProtocolIE-ID ::= 343

id-CurrentQoSParaSetIndex ProtocolIE-ID ::= 344

id-gNBCUMeasurementID ProtocolIE-ID ::= 345

id-gNBDUMeasurementID ProtocolIE-ID ::= 346

id-RegistrationRequest ProtocolIE-ID ::= 347

id-ReportCharacteristics ProtocolIE-ID ::= 348

id-CellToReportList ProtocolIE-ID ::= 349

id-CellMeasurementResultList ProtocolIE-ID ::= 350

id-HardwareLoadIndicator ProtocolIE-ID ::= 351

id-ReportingPeriodicity ProtocolIE-ID ::= 352

id-TNLCapacityIndicator ProtocolIE-ID ::= 353

id-CarrierList ProtocolIE-ID ::= 354

id-ULCarrierList ProtocolIE-ID ::= 355

id-FrequencyShift7p5khz ProtocolIE-ID ::= 356

id-SSB-PositionsInBurst ProtocolIE-ID ::= 357

id-NRPRACHConfig ProtocolIE-ID ::= 358

id-RACHReportInformationList ProtocolIE-ID ::= 359

id-RLFReportInformationList ProtocolIE-ID ::= 360

id-TDD-UL-DLConfigCommonNR ProtocolIE-ID ::= 361

id-CNPacketDelayBudgetDownlink ProtocolIE-ID ::= 362

id-ExtendedPacketDelayBudget ProtocolIE-ID ::= 363

id-TSCTrafficCharacteristics ProtocolIE-ID ::= 364

id-ReportingRequestType ProtocolIE-ID ::= 365

id-TimeReferenceInformation ProtocolIE-ID ::= 366

id-CNPacketDelayBudgetUplink ProtocolIE-ID ::= 369

id-AdditionalPDCPDuplicationTNL-List ProtocolIE-ID ::= 370

id-RLCDuplicationInformation ProtocolIE-ID ::= 371

id-AdditionalDuplicationIndication ProtocolIE-ID ::= 372

id-ConditionalInterDUMobilityInformation ProtocolIE-ID ::= 373

id-ConditionalIntraDUMobilityInformation ProtocolIE-ID ::= 374

id-targetCellsToCancel ProtocolIE-ID ::= 375

id-requestedTargetCellGlobalID ProtocolIE-ID ::= 376

id-ManagementBasedMDTPLMNList ProtocolIE-ID ::= 377

id-TraceCollectionEntityIPAddress ProtocolIE-ID ::= 378

id-PrivacyIndicator ProtocolIE-ID ::= 379

id-TraceCollectionEntityURI ProtocolIE-ID ::= 380

id-mdtConfiguration ProtocolIE-ID ::= 381

id-ServingNID ProtocolIE-ID ::= 382

id-NPNBroadcastInformation ProtocolIE-ID ::= 383

id-NPNSupportInfo ProtocolIE-ID ::= 384

id-NID ProtocolIE-ID ::= 385

id-AvailableSNPN-ID-List ProtocolIE-ID ::= 386

id-SIB10-message ProtocolIE-ID ::= 387

id-DLCarrierList ProtocolIE-ID ::= 389

id-ExtendedTAISliceSupportList ProtocolIE-ID ::= 390

id-RequestedSRSTransmissionCharacteristics ProtocolIE-ID ::= 391

id-PosAssistance-Information ProtocolIE-ID ::= 392

id-PosBroadcast ProtocolIE-ID ::= 393

id-RoutingID ProtocolIE-ID ::= 394

id-PosAssistanceInformationFailureList ProtocolIE-ID ::= 395

id-PosMeasurementQuantities ProtocolIE-ID ::= 396

id-PosMeasurementResultList ProtocolIE-ID ::= 397

id-TRPInformationTypeListTRPReq ProtocolIE-ID ::= 398

id-TRPInformationTypeItem ProtocolIE-ID ::= 399

id-TRPInformationListTRPResp ProtocolIE-ID ::= 400

id-TRPInformationItem ProtocolIE-ID ::= 401

id-LMF-MeasurementID ProtocolIE-ID ::= 402

id-SRSType ProtocolIE-ID ::= 403

id-ActivationTime ProtocolIE-ID ::= 404

id-AbortTransmission ProtocolIE-ID ::= 405

id-PositioningBroadcastCells ProtocolIE-ID ::= 406

id-SRSConfiguration ProtocolIE-ID ::= 407

id-PosReportCharacteristics ProtocolIE-ID ::= 408

id-PosMeasurementPeriodicity ProtocolIE-ID ::= 409

id-TRPList ProtocolIE-ID ::= 410

id-RAN-MeasurementID ProtocolIE-ID ::= 411

id-LMF-UE-MeasurementID ProtocolIE-ID ::= 412

id-RAN-UE-MeasurementID ProtocolIE-ID ::= 413

id-E-CID-MeasurementQuantities ProtocolIE-ID ::= 414

id-E-CID-MeasurementQuantities-Item ProtocolIE-ID ::= 415

id-E-CID-MeasurementPeriodicity ProtocolIE-ID ::= 416

id-E-CID-MeasurementResult ProtocolIE-ID ::= 417

id-Cell-Portion-ID ProtocolIE-ID ::= 418

id-SFNInitialisationTime ProtocolIE-ID ::= 419

id-SystemFrameNumber ProtocolIE-ID ::= 420

id-SlotNumber ProtocolIE-ID ::= 421

id-TRP-MeasurementRequestList ProtocolIE-ID ::= 422

id-MeasurementBeamInfoRequest ProtocolIE-ID ::= 423

id-E-CID-ReportCharacteristics ProtocolIE-ID ::= 424

id-ConfiguredTACIndication ProtocolIE-ID ::= 425

id-Extended-GNB-CU-Name ProtocolIE-ID ::= 426

id-Extended-GNB-DU-Name ProtocolIE-ID ::= 427

id-F1CTransferPath ProtocolIE-ID ::= 428

id-SFN-Offset ProtocolIE-ID ::= 429

id-TransmissionStopIndicator ProtocolIE-ID ::= 430

id-SrsFrequency ProtocolIE-ID ::= 431

id-SCGIndicator ProtocolIE-ID ::= 432

id-EstimatedArrivalProbability ProtocolIE-ID ::= 433

id-TRPType ProtocolIE-ID ::= 434

id-SRSSpatialRelationPerSRSResource ProtocolIE-ID ::= 435

id-PDCPTerminatingNodeDLTNLAddrInfo ProtocolIE-ID ::= 436

id-ENBDLTNLAddress ProtocolIE-ID ::= 437

id-PosMeasurementPeriodicityExtended ProtocolIE-ID ::= 438

id-PRS-Resource-ID ProtocolIE-ID ::= 439

id-LocationMeasurementInformation ProtocolIE-ID ::= 440

id-SliceRadioResourceStatus ProtocolIE-ID ::= 441

id-CompositeAvailableCapacity-SUL ProtocolIE-ID ::= 442

id-SuccessfulHOReportInformationList ProtocolIE-ID ::= 443

id-NR-U-Channel-List ProtocolIE-ID ::= 444

id-NR-U ProtocolIE-ID ::= 445

id-Coverage-Modification-Notification ProtocolIE-ID ::= 446

id-CCO-Assistance-Information ProtocolIE-ID ::= 447

id-Neighbor-node-CCO-Assistance-Information-List ProtocolIE-ID ::= 448

id-CellsForSON-List ProtocolIE-ID ::= 449

id-MIMOPRBusageInformation ProtocolIE-ID ::= 450

id-gNB-CU-MBS-F1AP-ID ProtocolIE-ID ::= 451

id-gNB-DU-MBS-F1AP-ID ProtocolIE-ID ::= 452

id-MBS-Area-Session-ID ProtocolIE-ID ::= 453

id-MBS-CUtoDURRCInformation ProtocolIE-ID ::= 454

id-MBS-Session-ID ProtocolIE-ID ::= 455

id-SNSSAI ProtocolIE-ID ::= 456

id-MBS-Broadcast-NeighbourCellList ProtocolIE-ID ::= 457

id-BroadcastMRBs-FailedToBeModified-List ProtocolIE-ID ::= 458

id-BroadcastMRBs-FailedToBeModified-Item ProtocolIE-ID ::= 459

id-BroadcastMRBs-FailedToBeSetup-List ProtocolIE-ID ::= 460

id-BroadcastMRBs-FailedToBeSetup-Item ProtocolIE-ID ::= 461

id-BroadcastMRBs-FailedToBeSetupMod-List ProtocolIE-ID ::= 462

id-BroadcastMRBs-FailedToBeSetupMod-Item ProtocolIE-ID ::= 463

id-BroadcastMRBs-Modified-List ProtocolIE-ID ::= 464

id-BroadcastMRBs-Modified-Item ProtocolIE-ID ::= 465

id-BroadcastMRBs-Setup-List ProtocolIE-ID ::= 466

id-BroadcastMRBs-Setup-Item ProtocolIE-ID ::= 467

id-BroadcastMRBs-SetupMod-List ProtocolIE-ID ::= 468

id-BroadcastMRBs-SetupMod-Item ProtocolIE-ID ::= 469

id-BroadcastMRBs-ToBeModified-List ProtocolIE-ID ::= 470

id-BroadcastMRBs-ToBeModified-Item ProtocolIE-ID ::= 471

id-BroadcastMRBs-ToBeReleased-List ProtocolIE-ID ::= 472

id-BroadcastMRBs-ToBeReleased-Item ProtocolIE-ID ::= 473

id-BroadcastMRBs-ToBeSetup-List ProtocolIE-ID ::= 474

id-BroadcastMRBs-ToBeSetup-Item ProtocolIE-ID ::= 475

id-BroadcastMRBs-ToBeSetupMod-List ProtocolIE-ID ::= 476

id-BroadcastMRBs-ToBeSetupMod-Item ProtocolIE-ID ::= 477

id-Supported-MBS-FSA-ID-List ProtocolIE-ID ::= 478

id-UEIdentity-List-For-Paging-List ProtocolIE-ID ::= 479

id-UEIdentity-List-For-Paging-Item ProtocolIE-ID ::= 480

id-MBS-ServiceArea ProtocolIE-ID ::= 481

id-MulticastMRBs-FailedToBeModified-List ProtocolIE-ID ::= 482

id-MulticastMRBs-FailedToBeModified-Item ProtocolIE-ID ::= 483

id-MulticastMRBs-FailedToBeSetup-List ProtocolIE-ID ::= 484

id-MulticastMRBs-FailedToBeSetup-Item ProtocolIE-ID ::= 485

id-MulticastMRBs-FailedToBeSetupMod-List ProtocolIE-ID ::= 486

id-MulticastMRBs-FailedToBeSetupMod-Item ProtocolIE-ID ::= 487

id-MulticastMRBs-Modified-List ProtocolIE-ID ::= 488

id-MulticastMRBs-Modified-Item ProtocolIE-ID ::= 489

id-MulticastMRBs-Setup-List ProtocolIE-ID ::= 490

id-MulticastMRBs-Setup-Item ProtocolIE-ID ::= 491

id-MulticastMRBs-SetupMod-List ProtocolIE-ID ::= 492

id-MulticastMRBs-SetupMod-Item ProtocolIE-ID ::= 493

id-MulticastMRBs-ToBeModified-List ProtocolIE-ID ::= 494

id-MulticastMRBs-ToBeModified-Item ProtocolIE-ID ::= 495

id-MulticastMRBs-ToBeReleased-List ProtocolIE-ID ::= 496

id-MulticastMRBs-ToBeReleased-Item ProtocolIE-ID ::= 497

id-MulticastMRBs-ToBeSetup-List ProtocolIE-ID ::= 498

id-MulticastMRBs-ToBeSetup-Item ProtocolIE-ID ::= 499

id-MulticastMRBs-ToBeSetupMod-List ProtocolIE-ID ::= 500

id-MulticastMRBs-ToBeSetupMod-Item ProtocolIE-ID ::= 501

id-MBSMulticastF1UContextDescriptor ProtocolIE-ID ::= 502

id-MulticastF1UContext-ToBeSetup-List ProtocolIE-ID ::= 503

id-MulticastF1UContext-ToBeSetup-Item ProtocolIE-ID ::= 504

id-MulticastF1UContext-Setup-List ProtocolIE-ID ::= 505

id-MulticastF1UContext-Setup-Item ProtocolIE-ID ::= 506

id-MulticastF1UContext-FailedToBeSetup-List ProtocolIE-ID ::= 507

id-MulticastF1UContext-FailedToBeSetup-Item ProtocolIE-ID ::= 508

id-IABCongestionIndication ProtocolIE-ID ::= 509

id-IABConditionalRRCMessageDeliveryIndication ProtocolIE-ID ::= 510

id-F1CTransferPathNRDC ProtocolIE-ID ::= 511

id-BufferSizeThresh ProtocolIE-ID ::= 512

id-IAB-TNL-Addresses-Exception ProtocolIE-ID ::= 513

id-BAP-Header-Rewriting-Added-List ProtocolIE-ID ::= 514

id-BAP-Header-Rewriting-Added-List-Item ProtocolIE-ID ::= 515

id-Re-routingEnableIndicator ProtocolIE-ID ::= 516

id-NonF1terminatingTopologyIndicator ProtocolIE-ID ::= 517

id-EgressNonF1terminatingTopologyIndicator ProtocolIE-ID ::= 518

id-IngressNonF1terminatingTopologyIndicator ProtocolIE-ID ::= 519

id-rBSetConfiguration ProtocolIE-ID ::= 520

id-frequency-Domain-HSNA-Configuration-List ProtocolIE-ID ::= 521

id-child-IAB-Nodes-NA-Resource-List ProtocolIE-ID ::= 522

id-Parent-IAB-Nodes-NA-Resource-Configuration-List ProtocolIE-ID ::= 523

id-uL-FreqInfo ProtocolIE-ID ::= 524

id-uL-Transmission-Bandwidth ProtocolIE-ID ::= 525

id-dL-FreqInfo ProtocolIE-ID ::= 526

id-dL-Transmission-Bandwidth ProtocolIE-ID ::= 527

id-uL-NR-Carrier-List ProtocolIE-ID ::= 528

id-dL-NR-Carrier-List ProtocolIE-ID ::= 529

id-nRFreqInfo ProtocolIE-ID ::= 530

id-transmission-Bandwidth ProtocolIE-ID ::= 531

id-nR-Carrier-List ProtocolIE-ID ::= 532

id-Neighbour-Node-Cells-List ProtocolIE-ID ::= 533

id-Serving-Cells-List ProtocolIE-ID ::= 534

id-permutation ProtocolIE-ID ::= 535

id-MDTPollutedMeasurementIndicator ProtocolIE-ID ::= 536

id-M5ReportAmount ProtocolIE-ID ::= 537

id-M6ReportAmount ProtocolIE-ID ::= 538

id-M7ReportAmount ProtocolIE-ID ::= 539

id-SurvivalTime ProtocolIE-ID ::= 540

id-PDCMeasurementPeriodicity ProtocolIE-ID ::= 541

id-PDCMeasurementQuantities ProtocolIE-ID ::= 542

id-PDCMeasurementQuantities-Item ProtocolIE-ID ::= 543

id-PDCMeasurementResult ProtocolIE-ID ::= 544

id-PDCReportType ProtocolIE-ID ::= 545

id-RAN-UE-PDC-MeasID ProtocolIE-ID ::= 546

id-SCGActivationRequest ProtocolIE-ID ::= 547

id-SCGActivationStatus ProtocolIE-ID ::= 548

id-PRSTRPList ProtocolIE-ID ::= 549

id-PRSTransmissionTRPList ProtocolIE-ID ::= 550

id-OnDemandPRS ProtocolIE-ID ::= 551

id-AoA-SearchWindow ProtocolIE-ID ::= 552

id-TRP-MeasurementUpdateList ProtocolIE-ID ::= 553

id-ZoAInformation ProtocolIE-ID ::= 554

id-ResponseTime ProtocolIE-ID ::= 555

id-ARPLocationInfo ProtocolIE-ID ::= 556

id-ARP-ID ProtocolIE-ID ::= 557

id-MultipleULAoA ProtocolIE-ID ::= 558

id-UL-SRS-RSRPP ProtocolIE-ID ::= 559

id-SRSResourcetype ProtocolIE-ID ::= 560

id-ExtendedAdditionalPathList ProtocolIE-ID ::= 561

id-LoS-NLoSInformation ProtocolIE-ID ::= 562

id-NumberOfTRPRxTEG ProtocolIE-ID ::= 564

id-NumberOfTRPRxTxTEG ProtocolIE-ID ::= 565

id-TRPTxTEGAssociation ProtocolIE-ID ::= 566

id-TRPTEGInformation ProtocolIE-ID ::= 567

id-TRPRx-TEGInformation ProtocolIE-ID ::= 568

id-TRP-PRS-Info-List ProtocolIE-ID ::= 569

id-PRS-Measurement-Info-List ProtocolIE-ID ::= 570

id-PRSConfigRequestType ProtocolIE-ID ::= 571

id-MeasurementTimeOccasion ProtocolIE-ID ::= 573

id-MeasurementCharacteristicsRequestIndicator ProtocolIE-ID ::= 574

id-UEReportingInformation ProtocolIE-ID ::= 575

id-PosConextRevIndication ProtocolIE-ID ::= 576

id-TRPBeamAntennaInformation ProtocolIE-ID ::= 577

id-NRRedCapUEIndication ProtocolIE-ID ::= 578

id-Redcap-Bcast-Information ProtocolIE-ID ::= 579

id-RANUEPagingDRX ProtocolIE-ID ::= 580

id-CNUEPagingDRX ProtocolIE-ID ::= 581

id-NRPagingeDRXInformation ProtocolIE-ID ::= 582

id-NRPagingeDRXInformationforRRCINACTIVE ProtocolIE-ID ::= 583

id-NR-TADV ProtocolIE-ID ::= 584

id-QoEInformation ProtocolIE-ID ::= 585

id-CG-SDTQueryIndication ProtocolIE-ID ::= 586

id-SDT-MAC-PHY-CG-Config ProtocolIE-ID ::= 587

id-CG-SDTKeptIndicator ProtocolIE-ID ::= 588

id-CG-SDTindicatorSetup ProtocolIE-ID ::= 589

id-CG-SDTindicatorMod ProtocolIE-ID ::= 590

id-CG-SDTSessionInfoOld ProtocolIE-ID ::= 591

id-SDTInformation ProtocolIE-ID ::= 592

id-SDTRLCBearerConfiguration ProtocolIE-ID ::= 593

id-FiveG-ProSeAuthorized ProtocolIE-ID ::= 594

id-FiveG-ProSeUEPC5AggregateMaximumBitrate ProtocolIE-ID ::= 595

id-FiveG-ProSePC5LinkAMBR ProtocolIE-ID ::= 596

id-SRBMappingInfo ProtocolIE-ID ::= 597

id-DRBMappingInfo ProtocolIE-ID ::= 598

id-UuRLCChannelToBeSetupList ProtocolIE-ID ::= 599

id-UuRLCChannelToBeModifiedList ProtocolIE-ID ::= 600

id-UuRLCChannelToBeReleasedList ProtocolIE-ID ::= 601

id-UuRLCChannelSetupList ProtocolIE-ID ::= 602

id-UuRLCChannelFailedToBeSetupList ProtocolIE-ID ::= 603

id-UuRLCChannelModifiedList ProtocolIE-ID ::= 604

id-UuRLCChannelFailedToBeModifiedList ProtocolIE-ID ::= 605

id-UuRLCChannelRequiredToBeModifiedList ProtocolIE-ID ::= 606

id-UuRLCChannelRequiredToBeReleasedList ProtocolIE-ID ::= 607

id-PC5RLCChannelToBeSetupList ProtocolIE-ID ::= 608

id-PC5RLCChannelToBeModifiedList ProtocolIE-ID ::= 609

id-PC5RLCChannelToBeReleasedList ProtocolIE-ID ::= 610

id-PC5RLCChannelSetupList ProtocolIE-ID ::= 611

id-PC5RLCChannelFailedToBeSetupList ProtocolIE-ID ::= 612

id-PC5RLCChannelFailedToBeModifiedList ProtocolIE-ID ::= 613

id-PC5RLCChannelRequiredToBeModifiedList ProtocolIE-ID ::= 614

id-PC5RLCChannelRequiredToBeReleasedList ProtocolIE-ID ::= 615

id-PC5RLCChannelModifiedList ProtocolIE-ID ::= 616

id-SidelinkRelayConfiguration ProtocolIE-ID ::= 617

id-UpdatedRemoteUELocalID ProtocolIE-ID ::= 618

id-PathSwitchConfiguration ProtocolIE-ID ::= 619

id-PagingCause ProtocolIE-ID ::= 620

id-MUSIM-GapConfig ProtocolIE-ID ::= 621

id-PEIPSAssistanceInfo ProtocolIE-ID ::= 622

id-UEPagingCapability ProtocolIE-ID ::= 623

id-LastUsedCellIndication ProtocolIE-ID ::= 624

id-SIB17-message ProtocolIE-ID ::= 625

id-GNBDUUESliceMaximumBitRateList ProtocolIE-ID ::= 626

id-SIB20-message ProtocolIE-ID ::= 627

id-UE-MulticastMRBs-ToBeReleased-List ProtocolIE-ID ::= 628

id-UE-MulticastMRBs-ToBeReleased-Item ProtocolIE-ID ::= 629

id-UE-MulticastMRBs-ToBeSetup-List ProtocolIE-ID ::= 630

id-UE-MulticastMRBs-ToBeSetup-Item ProtocolIE-ID ::= 631

id-MulticastMBSSessionSetupList ProtocolIE-ID ::= 632

id-MulticastMBSSessionRemoveList ProtocolIE-ID ::= 633

id-PosMeasurementAmount ProtocolIE-ID ::= 634

id-SDT-Termination-Request ProtocolIE-ID ::= 635

id-pathPower ProtocolIE-ID ::= 636

id-DU-RX-MT-RX-Extend ProtocolIE-ID ::= 637

id-DU-TX-MT-TX-Extend ProtocolIE-ID ::= 638

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-InterFrequencyConfig-NoGap ProtocolIE-ID ::= 651

id-MBSInterestIndication ProtocolIE-ID ::= 652

id-UE-MulticastMRBs-ConfirmedToBeModified-List ProtocolIE-ID ::= 653

id-UE-MulticastMRBs-ConfirmedToBeModified-Item ProtocolIE-ID ::= 654

id-UE-MulticastMRBs-RequiredToBeModified-List ProtocolIE-ID ::= 655

id-UE-MulticastMRBs-RequiredToBeModified-Item ProtocolIE-ID ::= 656

id-UE-MulticastMRBs-RequiredToBeReleased-List ProtocolIE-ID ::= 657

id-UE-MulticastMRBs-RequiredToBeReleased-Item ProtocolIE-ID ::= 658

id-L571Info ProtocolIE-ID ::= 659

id-L1151Info ProtocolIE-ID ::= 660

id-SCS-480 ProtocolIE-ID ::= 661

id-SCS-960 ProtocolIE-ID ::= 662

id-SRSPortIndex ProtocolIE-ID ::= 663

id-PEISubgroupingSupportIndication ProtocolIE-ID ::= 664

id-NeedForGapsInfoNR ProtocolIE-ID ::= 665

id-NeedForGapNCSGInfoNR ProtocolIE-ID ::= 666

id-NeedForGapNCSGInfoEUTRA ProtocolIE-ID ::= 667

id-procedure-code-668-not-to-be-used ProtocolIE-ID ::= 668

id-procedure-code-669-not-to-be-used ProtocolIE-ID ::= 669

id-procedure-code-670-not-to-be-used ProtocolIE-ID ::= 670

id-Source-MRB-ID ProtocolIE-ID ::= 671

id-PosMeasurementPeriodicityNR-AoA ProtocolIE-ID ::= 672

id-RedCapIndication ProtocolIE-ID ::= 673

id-SRSPosRRCInactiveConfig ProtocolIE-ID ::= 674

id-SDTBearerConfigurationQueryIndication ProtocolIE-ID ::= 675

id-SDTBearerConfigurationInfo ProtocolIE-ID ::= 676

id-UL-GapFR2-Config ProtocolIE-ID ::= 677

id-ConfigRestrictInfoDAPS ProtocolIE-ID ::= 678

id-UE-MulticastMRBs-Setup-List ProtocolIE-ID ::= 679

id-UE-MulticastMRBs-Setup-Item ProtocolIE-ID ::= 680

id-MulticastF1UContextReferenceCU ProtocolIE-ID ::= 681

id-PosSItypeList ProtocolIE-ID ::= 682

id-DAPS-HO-Status ProtocolIE-ID ::= 683

id-UplinkTxDirectCurrentTwoCarrierListInfo ProtocolIE-ID ::= 684

id-UE-MulticastMRBs-ToBeSetup-atModify-List ProtocolIE-ID ::= 685

id-UE-MulticastMRBs-ToBeSetup-atModify-Item ProtocolIE-ID ::= 686

id-MC-PagingCell-List ProtocolIE-ID ::= 687

id-MC-PagingCell-Item ProtocolIE-ID ::= 688

id-SRSPosRRCInactiveQueryIndication ProtocolIE-ID ::= 689

id-UlTxDirectCurrentMoreCarrierInformation ProtocolIE-ID ::= 690

id-CPACMCGInformation ProtocolIE-ID ::= 691

id-TwoPHRModeMCG ProtocolIE-ID ::= 692

id-TwoPHRModeSCG ProtocolIE-ID ::= 693

id-ExtendedUEIdentityIndexValue ProtocolIE-ID ::= 694

id-ServingCellMO-List ProtocolIE-ID ::= 695

id-ServingCellMO-List-Item ProtocolIE-ID ::= 696

id-ServingCellMO-encoded-in-CGC-List ProtocolIE-ID ::= 697

id-HashedUEIdentityIndexValue ProtocolIE-ID ::= 698

id-UE-MulticastMRBs-Setupnew-List ProtocolIE-ID ::= 699

id-UE-MulticastMRBs-Setupnew-Item ProtocolIE-ID ::= 700

id-ncd-SSB-RedCapInitialBWP-SDT ProtocolIE-ID ::= 701

id-nrofSymbolsExtended ProtocolIE-ID ::= 702

id-repetitionFactorExtended ProtocolIE-ID ::= 703

id-startRBHopping ProtocolIE-ID ::= 704

id-startRBIndex ProtocolIE-ID ::= 705

id-transmissionCombn8 ProtocolIE-ID ::= 706

id-ServCellInfoList ProtocolIE-ID ::= 707

id-FiveG-ProSeLayer2Multipath ProtocolIE-ID ::= 900 -- assigned by MCC

id-FiveG-ProSeLayer2UEtoUERelay ProtocolIE-ID ::= 902 -- assigned by MCC

id-FiveG-ProSeLayer2UEtoUERemote ProtocolIE-ID ::= 903 -- assigned by MCC

id-PathAdditionInformation ProtocolIE-ID ::= 901 -- assigned by MCC

END

-- ASN1STOP

### 9.4.8 Container Definitions

-- ASN1START

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Container definitions

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

F1AP-Containers {

itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)

ngran-access (22) modules (3) f1ap (3) version1 (1) f1ap-Containers (5) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- IE parameter types from other modules.

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

IMPORTS

Criticality,

Presence,

PrivateIE-ID,

ProtocolExtensionID,

ProtocolIE-ID

FROM F1AP-CommonDataTypes

maxPrivateIEs,

maxProtocolExtensions,

maxProtocolIEs

FROM F1AP-Constants;

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Class Definition for Protocol IEs

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

F1AP-PROTOCOL-IES ::= CLASS {

&id ProtocolIE-ID UNIQUE,

&criticality Criticality,

&Value,

&presence Presence

}

WITH SYNTAX {

ID &id

CRITICALITY &criticality

TYPE &Value

PRESENCE &presence

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Class Definition for Protocol IEs

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

F1AP-PROTOCOL-IES-PAIR ::= CLASS {

&id ProtocolIE-ID UNIQUE,

&firstCriticality Criticality,

&FirstValue,

&secondCriticality Criticality,

&SecondValue,

&presence Presence

}

WITH SYNTAX {

ID &id

FIRST CRITICALITY &firstCriticality

FIRST TYPE &FirstValue

SECOND CRITICALITY &secondCriticality

SECOND TYPE &SecondValue

PRESENCE &presence

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Class Definition for Protocol Extensions

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

F1AP-PROTOCOL-EXTENSION ::= CLASS {

&id ProtocolExtensionID UNIQUE,

&criticality Criticality,

&Extension,

&presence Presence

}

WITH SYNTAX {

ID &id

CRITICALITY &criticality

EXTENSION &Extension

PRESENCE &presence

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Class Definition for Private IEs

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

F1AP-PRIVATE-IES ::= CLASS {

&id PrivateIE-ID,

&criticality Criticality,

&Value,

&presence Presence

}

WITH SYNTAX {

ID &id

CRITICALITY &criticality

TYPE &Value

PRESENCE &presence

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Container for Protocol IEs

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

ProtocolIE-Container {F1AP-PROTOCOL-IES : IEsSetParam} ::=

SEQUENCE (SIZE (0..maxProtocolIEs)) OF

ProtocolIE-Field {{IEsSetParam}}

ProtocolIE-SingleContainer {F1AP-PROTOCOL-IES : IEsSetParam} ::=

ProtocolIE-Field {{IEsSetParam}}

ProtocolIE-Field {F1AP-PROTOCOL-IES : IEsSetParam} ::= SEQUENCE {

id F1AP-PROTOCOL-IES.&id ({IEsSetParam}),

criticality F1AP-PROTOCOL-IES.&criticality ({IEsSetParam}{@id}),

value F1AP-PROTOCOL-IES.&Value ({IEsSetParam}{@id})

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Container for Protocol IE Pairs

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

ProtocolIE-ContainerPair {F1AP-PROTOCOL-IES-PAIR : IEsSetParam} ::=

SEQUENCE (SIZE (0..maxProtocolIEs)) OF

ProtocolIE-FieldPair {{IEsSetParam}}

ProtocolIE-FieldPair {F1AP-PROTOCOL-IES-PAIR : IEsSetParam} ::= SEQUENCE {

id F1AP-PROTOCOL-IES-PAIR.&id ({IEsSetParam}),

firstCriticality F1AP-PROTOCOL-IES-PAIR.&firstCriticality ({IEsSetParam}{@id}),

firstValue F1AP-PROTOCOL-IES-PAIR.&FirstValue ({IEsSetParam}{@id}),

secondCriticality F1AP-PROTOCOL-IES-PAIR.&secondCriticality ({IEsSetParam}{@id}),

secondValue F1AP-PROTOCOL-IES-PAIR.&SecondValue ({IEsSetParam}{@id})

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Container for Protocol Extensions

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

ProtocolExtensionContainer {F1AP-PROTOCOL-EXTENSION : ExtensionSetParam} ::=

SEQUENCE (SIZE (1..maxProtocolExtensions)) OF

ProtocolExtensionField {{ExtensionSetParam}}

ProtocolExtensionField {F1AP-PROTOCOL-EXTENSION : ExtensionSetParam} ::= SEQUENCE {

id F1AP-PROTOCOL-EXTENSION.&id ({ExtensionSetParam}),

criticality F1AP-PROTOCOL-EXTENSION.&criticality ({ExtensionSetParam}{@id}),

extensionValue F1AP-PROTOCOL-EXTENSION.&Extension ({ExtensionSetParam}{@id})

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Container for Private IEs

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PrivateIE-Container {F1AP-PRIVATE-IES : IEsSetParam } ::=

SEQUENCE (SIZE (1.. maxPrivateIEs)) OF

PrivateIE-Field {{IEsSetParam}}

PrivateIE-Field {F1AP-PRIVATE-IES : IEsSetParam} ::= SEQUENCE {

id F1AP-PRIVATE-IES.&id ({IEsSetParam}),

criticality F1AP-PRIVATE-IES.&criticality ({IEsSetParam}{@id}),

value F1AP-PRIVATE-IES.&Value ({IEsSetParam}{@id})

}

END

-- ASN1STOP