**3GPP TSG-RAN Meeting #97-eRP-222641**

**E-meeting, 12 – 16 September 2022**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **37.483** | **CR** | 0037 | **rev** | **3** | **Current version:** | **17.1.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
|  | | | | | | | | |

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

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Correction for the MBS multicast data forwarding | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** |  | | | | | | | | | |
| ***Source to TSG:*** | Samsung, CATT, Huawei, Ericsson, Nokia, Nokia Shanghai Bell, Lenovo, Huawei | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_MBS-Core | | | | |  | ***Date:*** | | | 2022-08-09 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | E1AP does not contain yet any protocol functions to control CU-UP resources for data forwarding of multicast data between gNBs, neither for mobility between gNBs supporting NR MBS nor between a gNB supporting NR MBS and a gNB not supporting NR MBS. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add MC Forwarding Resource related IEs into existing MC Bearer Context IEs to support the following functions:   * Provision and retrieval of MBR progress information at s source and. * Request and provision of forwarding addresses * Provision of Mapping information between MBS QoS flows and associated unicast QoS flows together with a forwarding address for session level forwarding. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Data forwarding can not be supported in disaggregated architecture. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 8.6.2.2.2, 8.6.2.3.2, 9.3.1.xx(new), 9.3.1.zz (new), 9.3.1.mm (new), 9.3.1.a (new), 9.3.1.b (new), 9.3.1.c(new), 9.3.1.d(new), 9.3.1.e(new), 9.3.3.34, 9.3.3.35, 9.3.3.36, ASN.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **x** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **x** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **x** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | V3: correction on the ASN.1 and tabular misalignment. | | | | | | | | |

**/\*---------------**Start of Change**-----------\*/**

#### 8.6.2.2 MC Bearer Context Modification (gNB-CU-CP initiated)

##### 8.6.2.2.1 General

The purpose of the gNB-CU-CP initiated MC Bearer Context Modification procedure is to allow the gNB-CU-CP to modify resources for a multicast MBS session. The procedure uses MBS associated signalling.

##### 8.6.2.2.2 Successful Operation



Figure 8.6.2.2.2-1: MC Bearer Context Modification procedure, gNB-CU-CP initiated: Successful Operation.

The gNB-CU-CP initiates the procedure by sending the MC BEARER CONTEXT MODIFICATION REQUEST message to the gNB-CU-UP. If the gNB-CU-UP succeeds to perform at least partially the requested modifications it replies to the gNB-CU-CP with the MC BEARER CONTEXT MODIFICATION RESPONSE message.

The gNB-CU-UP shall report to the gNB-CU-CP, in the MC BEARER CONTEXT MODIFICATION RESPONSE message, the result of all the requested resources in the following way:

- A list of MC MRBs which are successfully established or modified shall be included in the *MC MRB Setup or Modify Response List* IE;

- A list of MC MRBs which failed to be established or modified shall be included in the M*C MRB Failed List* IE;

- For each newly established or modified MC MRB, a list of MBS QoS Flows which are successfully established or modified shall be included in the *MBS QoS Flow Setup List* IE;

- For each newly established or modified MC MRB, a list of MBS QoS Flows which failed to be established or modified shall be included in the *MBS QoS Flow Failed List* IE.

When the gNB-CU-UP reports the unsuccessful establishment of a MC MRB or MBS QoS Flow the cause value should be precise enough to enable the gNB-CU-CP to know the reason for the unsuccessful establishment.

If the M*C Bearer Context NG-U TNL Info at 5GC* IE is contained in the MC BEARER CONTEXT MODIFICATION REQUEST message, the gNB-CU-UP shall update the previously received MC Bearer Context NG-U TNL Info at 5GC.

If the *MC Bearer Context NG-U TNL Info at NG-RAN Request* IE is contained in the MC BEARER CONTEXT MODIFICATION REQUEST message, the gNB-CU-UP shall include the *MC Bearer Context NG-U TNL Info at NG-RAN Modify Response* IE in the MC BEARER CONTEXT MODIFICATION RESPONSE message.

If the *MRB Progress Information Request Type* IE is contained within the *MC Forwarding Resource Request* IE in the MC BEARER CONTEXT MODIFICATION REQUEST message, the gNB-CU-UP shall, if supported, include the requested information in the *MRB Progress Information* IE within the *MC Forwarding Resource Response* IE in the MC BEARER CONTEXT MODIFICATION RESPONSE message. If the *MRB Forwarding Address Request* IE set to "true" is contained in the *MC Forwarding Resource Request* IE in the MC BEARER CONTEXT MODIFICATION REQUEST message, the gNB-CU-UP shall, if supported, include the *MRB Forwarding Address* IE within the *MC Forwarding Resource Response* IE in the MC BEARER CONTEXT MODIFICATION RESPONSE message.

If the *MC Forwarding Resource Indication* IE is contained in the MC BEARER CONTEXT MODIFICATION REQUEST message, the gNB-CU-UP shall, if supported, take the included information into account.

If the *MC Forwarding Resource Release* IE is contained in the MC BEARER CONTEXT MODIFICATION REQUEST message, the gNB-CU-UP shall, if supported, release the indicated MC Forwarding Resource.

#### 8.6.2.3 MC Bearer Context Modification Required (gNB-CU-UP initiated)

##### 8.6.2.3.1 General

The purpose of the gNB-CU-UP initiated MC Bearer Context Modification Required procedure is to allow the gNB-CU-UP to request the gNB-CU-CP to modify resources for a multicast MBS session and inform the gNB-CU-CP. The procedure uses MBS associated signalling.

##### 8.6.2.3.2 Successful Operation



Figure 8.6.2.3.2-1: MC Bearer Context Modification Required procedure, gNB-CU-UP initiated: Successful Operation.

The gNB-CU-UP initiates the procedure by sending the MC BEARER CONTEXT MODIFICATION REQUIRED message to the gNB-CU-CP. The gNB-CU-CP replies to the gNB-CU-UP with the MC BEARER CONTEXT MODIFICATION CONFIRM message.

If the *MC Forwarding Resource Release Indication* IE is contained in the MC BEARER CONTEXT MODIFICATION REQUIRED message, the gNB-CU-CP shall, if supported, assume that the indicated MC Forwarding Resource was released by the gNB-CU-UP.

##### 8.6.2.3.3 Abnormal Conditions

void

/\*---------------Start of the Next Change-----------\*/

#### 9.3.1.xx MRB Progress Information

This IE contains the MRB progress information.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| CHOICE *MRB Progress Information SNs* | M |  |  |  |
| *>12bits* |  |  |  |  |
| >>PDCP SN Length 12 | M |  | INTEGER (0..4095) |  |
| *>18bits* |  |  |  |  |
| >>PDCP SN Length 18 | M |  | INTEGER (0..262143) |  |
| MRB Progress Information Type | M |  | 9.3.1.yy |  |

#### 9.3.1.yy MRB Progress Information Type

This IE contains the MRB progress information.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| MRB Progress Information Type | M |  | ENUMERATED (oldest available, last delivered, ...) |  |

#### 9.3.1.zz MC Forwarding Resource ID

This IE provides the means to identify a MC forwarding resource. It is uniquely allocated for a MC Bearer Context.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| MC Forwarding Resource ID | M |  | OCTET STRING (SIZE(2)) |  |

#### 9.3.1.mm MBS Session Associated Information

This IE provides the means to establish a MC MBS session level forwarding resource to support handover to a gNB not supporting NR MBS.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| **Associated QoS Flow Information List** |  | *1..<maxnoofQoSflows>* |  |  |
| >MBS QoS Flow Identifier | M |  | QoS Flow Identifier  9.3.1.24 |  |
| >Associated Unicast QoS Flow Identifier | M |  | QoS Flow Identifier  9.3.1.24 |  |
| MBS Session Forwarding Address | M |  | UP Transport Layer Information  9.3.2.1 |  |

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofQoSFlows | Maximum no. of QoS flows in a PDU Session. Value is 64. |

#### 9.3.1.a MC Forwarding Resource Request

This IE is used by the gNB-CU-CP for request from the gNB-CU-UP information from the peer node regarding a MC Forwarding Resource.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| MC Forwarding Resource ID | M |  | 9.3.1.zz |  |
| MBS Area Session ID | O |  | 9.3.1.111 |  |
| **MRB Forwarding Resource Request List** |  | *0..<maxnoofMRBs>* |  |  |
| >MRB ID | M |  | 9.3.1.16a |  |
| >MRB Progress Information Request Type | O |  | 9.3.1.yy | Requests MRB Progress Information of the indicated type from the peer node |
| >MRB Forwarding Address Request | O |  | ENUMERATED (request, ...) |  |

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofMRBs | Maximum no. of MRBs for one MBS Session. Value is 32. |

#### 9.3.1.b MC Forwarding Resource Indication

This IE is used by the gNB-CU-CP for indicate to the gNB-CU-UP information from the peer node regarding MC Forwarding Resources.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| MC Forwarding Resource ID | M |  | 9.3.1.zz |  |
| **MRB Forwarding Indication List** |  | *0..<maxnoofMRBs>* |  |  |
| >MRB ID | M |  | 9.3.1.16a |  |
| >MRB Progress Information | O |  | 9.3.1.xx | Provides MRB Progress Information from the peer node. |
| >MRB Forwarding Address | O |  | UP Transport Layer Information  9.3.2.1 |  |
| MBS Session Associated Information | O |  | 9.3.1.mm |  |

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofMRBs | Maximum no. of MRBs for one MBS Session. Value is 32. |

#### 9.3.1.c MC Forwarding Resource Response

This IE is used by the gNB-CU-UP to response to requests from the gNB-CU-CP regarding a MC Forwarding Resource at the gNB-CU-UP.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| MC Forwarding Resource ID | M |  | 9.3.1.zz |  |
| **MRB Forwarding Indication List** |  | *0..<maxnoofMRBs>* |  |  |
| >MRB ID | M |  | 9.3.1.16a |  |
| >MRB Progress Information | O |  | 9.3.1.xx |  |
| >MRB Forwarding Address | O |  | UP Transport Layer Information  9.3.2.1 |  |

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofMRBs | Maximum no. of MRBs for one MBS Session. Value is 32. |

#### 9.3.1.d MC Forwarding Release

This IE is used by the gNB-CU-CP to release a MC Forwarding Resource at the gNB-CU-UP.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| MC Forwarding Resource ID | M |  | 9.3.1.zz |  |

#### 9.3.1.e MC Forwarding Release Indication

This IE is used by the gNB-CU-UP to indicate the release of a MC Forwarding Resource to the gNB-CU-CP.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| MC Forwarding Resource ID | M |  | 9.3.1.zz |  |

\*---------------Start of the Next Change-----------\*/

#### 9.3.3.34 MC Bearer Context To Modify

This IE contains MBS session resource related information used to request a modification of a multicast MC Bearer Context.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| MC Bearer Context NG-U TNL Info at 5GC | O |  | 9.3.1.122 |  | - |  |
| MC Bearer Context NG-U TNL Info at NG-RAN Request | O |  | 9.3.1.123 | To request NG-U TNL information from the gNB-CU-UP, if not yet available at gNB-CU-CP | - |  |
| MBS Multicast F1-U Context Descriptor | C-ifSetupOrRemove |  | 9.3.1.125 |  | - |  |
| **MC MRB To Setup or Modify List** |  | *0..<maxnoofMRBs>* |  |  | - |  |
| >MRB ID | M |  | 9.3.1.16a |  | - |  |
| >MC Bearer Context F1-U TNL Info at DU | O |  | 9.3.1.124 |  | - |  |
| >SDAP Configuration | O |  | 9.3.1.39 |  | - |  |
| >MBS PDCP Configuration | O |  | PDCP Configuration  9.3.1.38 |  | - |  |
| >MBS QoS Flows Information To Be Setup | O |  | QoS Flow QoS Parameters List  9.3.1.25 |  | - |  |
| >MRB QoS | O |  | QoS Flow Level QoS Parameters 9.3.1.26 | Indicates the MRB QoS when more than one QoS Flow is mapped to the MRB. | - |  |
| >MBS Initial HFN and Reference PDCP SN Request | O |  | ENUMERATED (true, ...) | Indicates the MBS initial HFN and reference PDCP SN is requested. | - |  |
| **MC MRB To Remove List** |  | *0..<maxnoofMRBs>* |  |  | - |  |
| >MRB ID | M |  | 9.3.1.16a |  | - |  |
| MC Forwarding Resource Request | O |  | 9.3.1.a | requests MC Forwarding Resource related information for the peer node | YES | ignore |
| MC Forwarding Resource Indication | O |  | 9.3.1.b | provides MC Forwarding Resource related information from the peer node | YES | ignore |
| MC Forwarding Resouce Release | O |  | 9.3.1.d | requests the release of the MC Forwarding Resource | YES | ignore |

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofMRBs | Maximum no. of MRBs for a UE. Value is 32. |

|  |  |
| --- | --- |
| Condition | Explanation |
| ifSetupOrRemove | This IE shall be present if either the *MC MRB To Setup or Modify List* IE or the *MC MRB To Remove List* IE or both IEs are included. |

#### 9.3.3.35 MC Bearer Context To Modify Response

This IE contains MBS session resource related information used to confirm a MC Bearer Context Modification.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| MC Bearer Context NG-U TNL Info at NG-RAN Modify Response | O |  | 9.3.1.127 |  | - |  |
| MBS Multicast F1-U Context Descriptor | C-ifSetupOrFailed |  | 9.3.1.125 |  | - |  |
| **MC MRB Setup or Modify Response List** |  | *0..<maxnoofMRBs>* |  |  | - |  |
| >MRB ID | M |  | 9.3.1.16a |  | - |  |
| >MBS QoS Flow Setup List | O |  | QoS Flow List  9.3.1.12 |  | - |  |
| >MBS QoS Flow Failed List | O |  | Flow Failed List  9.3.1.45 |  | - |  |
| >MC Bearer Context F1-U TNL Info at CU | O |  | UP Transport Layer Information  9.3.2.1 |  | - |  |
| >MBS Initial HFN and Reference PDCP SN | O |  | BIT STRING (32) | Refer to the *multicastHFN-AndRefSN* IE as specified in the TS 38.331 [10]. | - |  |
| **MC MRB Failed List** |  | *0..<maxnoofMRBs>* |  |  | - |  |
| >MRB ID | M |  | 9.3.1.16a |  | - |  |
| >Cause | M |  | 9.3.1.2 |  | - |  |
| Available MC MRB Configuration | O |  | MC MRB Setup Configuration  9.3.1.120 | In case the shared MBS NG-U termination had a different MRB Configuration applied. | - |  |
| MC Forwarding Resource Response | O |  | 9.3.1.c | provides MC Forwarding Resource related information destined to the peer node | YES | ignore |

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofMRBs | Maximum no. of MRBs for a UE. Value is 32. |

|  |  |
| --- | --- |
| Condition | Explanation |
| ifSetupOrFailed | This IE shall be present if either the *MC MRB Setup or Modify Response List* IE or the *MC MRB Failed List*IE or both IEs are included. |

/\*---------------Start of the Next Change-----------\*/

#### 9.3.3.36 MC Bearer Context To Modify Required

This IE contains MBS session resource related information used to request MC Bearer Context Modification.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| MBS Multicast F1-U Context Descriptor | C-ifRemoved |  | 9.3.1.125 |  | - |  |
| **MC MRB To Remove List Required** |  | *0..<maxnoofMRBs>* |  |  | - |  |
| >MRB ID | M |  | 9.3.1.16a |  | - |  |
| **MC MRB To Modify List Required** |  | *0..<maxnoofMRBs>* |  |  | - |  |
| >MRB ID | M |  | 9.3.1.16a |  | - |  |
| >MBS Initial HFN and Reference PDCP SN | O |  | BIT STRING (32) | Refer to the *multicastHFN-AndRefSN* IE as specified in the TS 38.331 [10]. | - |  |
| MC Forwarding Resource Release Indication | O |  | 9.3.1.e | Indicates the release of an MC Forwarding Resource | YES | ignore |

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofMRBs | Maximum no. of MRBs for a UE. Value is 32. |

|  |  |
| --- | --- |
| Condition | Explanation |
| ifRemove | This IE shall be present if either the *MC MRB To Remove List Required* IE is included. |

/\*---------------Start of the Next Change-----------\*/

9.4.3 Elementary Procedure Definitions

-- ASN1START

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

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-- Elementary Procedure definitions

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

E1AP-PDU-Descriptions {

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

ngran-access (22) modules (3) e1ap (5) version1 (1) e1ap-PDU-Descriptions (0) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

--

-- IE parameter types from other modules

--

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

IMPORTS

Criticality,

ProcedureCode

FROM E1AP-CommonDataTypes

Reset,

ResetAcknowledge,

ErrorIndication,

GNB-CU-UP-E1SetupRequest,

GNB-CU-UP-E1SetupResponse,

GNB-CU-UP-E1SetupFailure,

GNB-CU-CP-E1SetupRequest,

GNB-CU-CP-E1SetupResponse,

GNB-CU-CP-E1SetupFailure,

GNB-CU-UP-ConfigurationUpdate,

GNB-CU-UP-ConfigurationUpdateAcknowledge,

GNB-CU-UP-ConfigurationUpdateFailure,

GNB-CU-CP-ConfigurationUpdate,

GNB-CU-CP-ConfigurationUpdateAcknowledge,

GNB-CU-CP-ConfigurationUpdateFailure,

BCBearerContextSetupRequest,

BCBearerContextSetupResponse,

BCBearerContextSetupFailure,

BCBearerContextModificationRequest,

BCBearerContextModificationResponse,

BCBearerContextModificationFailure,

BCBearerContextModificationRequired,

BCBearerContextModificationConfirm,

BCBearerContextReleaseCommand,

BCBearerContextReleaseComplete,

BCBearerContextReleaseRequest,

BearerContextSetupRequest,

BearerContextSetupResponse,

BearerContextSetupFailure,

BearerContextModificationRequest,

BearerContextModificationResponse,

BearerContextModificationFailure,

BearerContextModificationRequired,

BearerContextModificationConfirm,

BearerContextReleaseCommand,

BearerContextReleaseComplete,

BearerContextReleaseRequest,

BearerContextInactivityNotification,

DLDataNotification,

ULDataNotification,

DataUsageReport,

E1ReleaseRequest,

E1ReleaseResponse,

GNB-CU-UP-CounterCheckRequest,

GNB-CU-UP-StatusIndication,

MCBearerContextSetupRequest,

MCBearerContextSetupResponse,

MCBearerContextSetupFailure,

MCBearerContextModificationRequest,

MCBearerContextModificationResponse,

MCBearerContextModificationFailure,

MCBearerContextModificationRequired,

MCBearerContextModificationConfirm,

MCBearerContextReleaseCommand,

MCBearerContextReleaseComplete,

MCBearerContextReleaseRequest,

MRDC-DataUsageReport,

DeactivateTrace,

TraceStart,

PrivateMessage,

ResourceStatusRequest,

ResourceStatusResponse,

ResourceStatusFailure,

ResourceStatusUpdate,

IAB-UPTNLAddressUpdate,

IAB-UPTNLAddressUpdateAcknowledge,

IAB-UPTNLAddressUpdateFailure,

CellTrafficTrace,

EarlyForwardingSNTransfer,

GNB-CU-CPMeasurementResultsInformation,

IABPSKNotification

FROM E1AP-PDU-Contents

id-reset,

id-errorIndication,

id-gNB-CU-UP-E1Setup,

id-gNB-CU-CP-E1Setup,

id-gNB-CU-UP-ConfigurationUpdate,

id-gNB-CU-CP-ConfigurationUpdate,

id-e1Release,

id-bearerContextSetup,

id-bearerContextModification,

id-bearerContextModificationRequired,

id-bearerContextRelease,

id-bearerContextReleaseRequest,

id-bearerContextInactivityNotification,

id-dLDataNotification,

id-uLDataNotification,

id-dataUsageReport,

id-gNB-CU-UP-CounterCheck,

id-gNB-CU-UP-StatusIndication,

id-mRDC-DataUsageReport,

id-DeactivateTrace,

id-TraceStart,

id-privateMessage,

id-resourceStatusReportingInitiation,

id-resourceStatusReporting,

id-iAB-UPTNLAddressUpdate,

id-CellTrafficTrace,

id-earlyForwardingSNTransfer,

id-gNB-CU-CPMeasurementResultsInformation,

id-iABPSKNotification,

id-BCBearerContextSetup,

id-BCBearerContextModification,

id-BCBearerContextModificationRequired,

id-BCBearerContextRelease,

id-BCBearerContextReleaseRequest,

id-MCBearerContextSetup,

id-MCBearerContextModification,

id-MCBearerContextModificationRequired,

id-MCBearerContextRelease,

id-MCBearerContextReleaseRequest

FROM E1AP-Constants;

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

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-- Interface Elementary Procedure Class

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

E1AP-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

--

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

E1AP-PDU ::= CHOICE {

initiatingMessage InitiatingMessage,

successfulOutcome SuccessfulOutcome,

unsuccessfulOutcome UnsuccessfulOutcome,

...

}

InitiatingMessage ::= SEQUENCE {

procedureCode E1AP-ELEMENTARY-PROCEDURE.&procedureCode ({E1AP-ELEMENTARY-PROCEDURES}),

criticality E1AP-ELEMENTARY-PROCEDURE.&criticality ({E1AP-ELEMENTARY-PROCEDURES}{@procedureCode}),

value E1AP-ELEMENTARY-PROCEDURE.&InitiatingMessage ({E1AP-ELEMENTARY-PROCEDURES}{@procedureCode})

}

SuccessfulOutcome ::= SEQUENCE {

procedureCode E1AP-ELEMENTARY-PROCEDURE.&procedureCode ({E1AP-ELEMENTARY-PROCEDURES}),

criticality E1AP-ELEMENTARY-PROCEDURE.&criticality ({E1AP-ELEMENTARY-PROCEDURES}{@procedureCode}),

value E1AP-ELEMENTARY-PROCEDURE.&SuccessfulOutcome ({E1AP-ELEMENTARY-PROCEDURES}{@procedureCode})

}

UnsuccessfulOutcome ::= SEQUENCE {

procedureCode E1AP-ELEMENTARY-PROCEDURE.&procedureCode ({E1AP-ELEMENTARY-PROCEDURES}),

criticality E1AP-ELEMENTARY-PROCEDURE.&criticality ({E1AP-ELEMENTARY-PROCEDURES}{@procedureCode}),

value E1AP-ELEMENTARY-PROCEDURE.&UnsuccessfulOutcome ({E1AP-ELEMENTARY-PROCEDURES}{@procedureCode})

}

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

--

-- Interface Elementary Procedure List

--

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

E1AP-ELEMENTARY-PROCEDURES E1AP-ELEMENTARY-PROCEDURE ::= {

E1AP-ELEMENTARY-PROCEDURES-CLASS-1 |

E1AP-ELEMENTARY-PROCEDURES-CLASS-2 ,

...

}

E1AP-ELEMENTARY-PROCEDURES-CLASS-1 E1AP-ELEMENTARY-PROCEDURE ::= {

reset |

gNB-CU-UP-E1Setup |

gNB-CU-CP-E1Setup |

gNB-CU-UP-ConfigurationUpdate |

gNB-CU-CP-ConfigurationUpdate |

e1Release |

bearerContextSetup |

bearerContextModification |

bearerContextModificationRequired |

bearerContextRelease |

resourceStatusReportingInitiation |

iAB-UPTNLAddressUpdate |

bCBearerContextSetup |

bCBearerContextModification |

bCBearerContextModificationRequired |

bCBearerContextRelease |

mCBearerContextSetup |

mCBearerContextModification |

mCBearerContextModificationRequired |

mCBearerContextRelease ,

...

}

E1AP-ELEMENTARY-PROCEDURES-CLASS-2 E1AP-ELEMENTARY-PROCEDURE ::= {

errorIndication |

bearerContextReleaseRequest |

bearerContextInactivityNotification |

dLDataNotification |

uLDataNotification |

dataUsageReport |

gNB-CU-UP-CounterCheck |

gNB-CU-UP-StatusIndication |

mRDC-DataUsageReport |

deactivateTrace |

traceStart |

privateMessage |

cellTrafficTrace |

resourceStatusReporting |

earlyForwardingSNTransfer |

gNB-CU-CPMeasurementResultsInformation |

iABPSKNotification |

bCBearerContextReleaseRequest |

mCBearerContextReleaseRequest ,

...

}

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

--

-- Interface Elementary Procedures

--

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

reset E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE Reset

SUCCESSFUL OUTCOME ResetAcknowledge

PROCEDURE CODE id-reset

CRITICALITY reject

}

errorIndication E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ErrorIndication

PROCEDURE CODE id-errorIndication

CRITICALITY ignore

}

gNB-CU-UP-E1Setup E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE GNB-CU-UP-E1SetupRequest

SUCCESSFUL OUTCOME GNB-CU-UP-E1SetupResponse

UNSUCCESSFUL OUTCOME GNB-CU-UP-E1SetupFailure

PROCEDURE CODE id-gNB-CU-UP-E1Setup

CRITICALITY reject

}

gNB-CU-CP-E1Setup E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE GNB-CU-CP-E1SetupRequest

SUCCESSFUL OUTCOME GNB-CU-CP-E1SetupResponse

UNSUCCESSFUL OUTCOME GNB-CU-CP-E1SetupFailure

PROCEDURE CODE id-gNB-CU-CP-E1Setup

CRITICALITY reject

}

gNB-CU-UP-ConfigurationUpdate E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE GNB-CU-UP-ConfigurationUpdate

SUCCESSFUL OUTCOME GNB-CU-UP-ConfigurationUpdateAcknowledge

UNSUCCESSFUL OUTCOME GNB-CU-UP-ConfigurationUpdateFailure

PROCEDURE CODE id-gNB-CU-UP-ConfigurationUpdate

CRITICALITY reject

}

gNB-CU-CP-ConfigurationUpdate E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE GNB-CU-CP-ConfigurationUpdate

SUCCESSFUL OUTCOME GNB-CU-CP-ConfigurationUpdateAcknowledge

UNSUCCESSFUL OUTCOME GNB-CU-CP-ConfigurationUpdateFailure

PROCEDURE CODE id-gNB-CU-CP-ConfigurationUpdate

CRITICALITY reject

}

e1Release E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE E1ReleaseRequest

SUCCESSFUL OUTCOME E1ReleaseResponse

PROCEDURE CODE id-e1Release

CRITICALITY reject

}

bearerContextSetup E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE BearerContextSetupRequest

SUCCESSFUL OUTCOME BearerContextSetupResponse

UNSUCCESSFUL OUTCOME BearerContextSetupFailure

PROCEDURE CODE id-bearerContextSetup

CRITICALITY reject

}

bearerContextModification E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE BearerContextModificationRequest

SUCCESSFUL OUTCOME BearerContextModificationResponse

UNSUCCESSFUL OUTCOME BearerContextModificationFailure

PROCEDURE CODE id-bearerContextModification

CRITICALITY reject

}

bearerContextModificationRequired E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE BearerContextModificationRequired

SUCCESSFUL OUTCOME BearerContextModificationConfirm

PROCEDURE CODE id-bearerContextModificationRequired

CRITICALITY reject

}

bearerContextRelease E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE BearerContextReleaseCommand

SUCCESSFUL OUTCOME BearerContextReleaseComplete

PROCEDURE CODE id-bearerContextRelease

CRITICALITY reject

}

bearerContextReleaseRequest E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE BearerContextReleaseRequest

PROCEDURE CODE id-bearerContextReleaseRequest

CRITICALITY ignore

}

bearerContextInactivityNotification E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE BearerContextInactivityNotification

PROCEDURE CODE id-bearerContextInactivityNotification

CRITICALITY ignore

}

dLDataNotification E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE DLDataNotification

PROCEDURE CODE id-dLDataNotification

CRITICALITY ignore

}

uLDataNotification E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ULDataNotification

PROCEDURE CODE id-uLDataNotification

CRITICALITY ignore

}

dataUsageReport E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE DataUsageReport

PROCEDURE CODE id-dataUsageReport

CRITICALITY ignore

}

gNB-CU-UP-CounterCheck E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE GNB-CU-UP-CounterCheckRequest

PROCEDURE CODE id-gNB-CU-UP-CounterCheck

CRITICALITY ignore

}

gNB-CU-UP-StatusIndication E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE GNB-CU-UP-StatusIndication

PROCEDURE CODE id-gNB-CU-UP-StatusIndication

CRITICALITY ignore

}

privateMessage E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PrivateMessage

PROCEDURE CODE id-privateMessage

CRITICALITY ignore

}

gNB-CU-CPMeasurementResultsInformation E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE GNB-CU-CPMeasurementResultsInformation

PROCEDURE CODE id-gNB-CU-CPMeasurementResultsInformation

CRITICALITY ignore

}

mRDC-DataUsageReport E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE MRDC-DataUsageReport

PROCEDURE CODE id-mRDC-DataUsageReport

CRITICALITY ignore

}

deactivateTrace E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE DeactivateTrace

PROCEDURE CODE id-DeactivateTrace

CRITICALITY ignore

}

traceStart E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE TraceStart

PROCEDURE CODE id-TraceStart

CRITICALITY ignore

}

resourceStatusReportingInitiation E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ResourceStatusRequest

SUCCESSFUL OUTCOME ResourceStatusResponse

UNSUCCESSFUL OUTCOME ResourceStatusFailure

PROCEDURE CODE id-resourceStatusReportingInitiation

CRITICALITY reject

}

resourceStatusReporting E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ResourceStatusUpdate

PROCEDURE CODE id-resourceStatusReporting

CRITICALITY ignore

}

iAB-UPTNLAddressUpdate E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE IAB-UPTNLAddressUpdate

SUCCESSFUL OUTCOME IAB-UPTNLAddressUpdateAcknowledge

UNSUCCESSFUL OUTCOME IAB-UPTNLAddressUpdateFailure

PROCEDURE CODE id-iAB-UPTNLAddressUpdate

CRITICALITY reject

}

cellTrafficTrace E1AP-ELEMENTARY-PROCEDURE ::={

INITIATING MESSAGE CellTrafficTrace

PROCEDURE CODE id-CellTrafficTrace

CRITICALITY ignore

}

earlyForwardingSNTransfer E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE EarlyForwardingSNTransfer

PROCEDURE CODE id-earlyForwardingSNTransfer

CRITICALITY ignore

}

iABPSKNotification E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE IABPSKNotification

PROCEDURE CODE id-iABPSKNotification

CRITICALITY reject

}

bCBearerContextSetup E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE BCBearerContextSetupRequest

SUCCESSFUL OUTCOME BCBearerContextSetupResponse

UNSUCCESSFUL OUTCOME BCBearerContextSetupFailure

PROCEDURE CODE id-BCBearerContextSetup

CRITICALITY reject

}

bCBearerContextModification E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE BCBearerContextModificationRequest

SUCCESSFUL OUTCOME BCBearerContextModificationResponse

UNSUCCESSFUL OUTCOME BCBearerContextModificationFailure

PROCEDURE CODE id-BCBearerContextModification

CRITICALITY reject

}

bCBearerContextModificationRequired E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE BCBearerContextModificationRequired

SUCCESSFUL OUTCOME BCBearerContextModificationConfirm

PROCEDURE CODE id-BCBearerContextModificationRequired

CRITICALITY reject

}

bCBearerContextRelease E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE BCBearerContextReleaseCommand

SUCCESSFUL OUTCOME BCBearerContextReleaseComplete

PROCEDURE CODE id-BCBearerContextRelease

CRITICALITY reject

}

bCBearerContextReleaseRequest E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE BCBearerContextReleaseRequest

PROCEDURE CODE id-BCBearerContextReleaseRequest

CRITICALITY reject

}

mCBearerContextSetup E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE MCBearerContextSetupRequest

SUCCESSFUL OUTCOME MCBearerContextSetupResponse

UNSUCCESSFUL OUTCOME MCBearerContextSetupFailure

PROCEDURE CODE id-MCBearerContextSetup

CRITICALITY reject

}

mCBearerContextModification E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE MCBearerContextModificationRequest

SUCCESSFUL OUTCOME MCBearerContextModificationResponse

UNSUCCESSFUL OUTCOME MCBearerContextModificationFailure

PROCEDURE CODE id-MCBearerContextModification

CRITICALITY reject

}

mCBearerContextModificationRequired E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE MCBearerContextModificationRequired

SUCCESSFUL OUTCOME MCBearerContextModificationConfirm

PROCEDURE CODE id-MCBearerContextModificationRequired

CRITICALITY reject

}

mCBearerContextRelease E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE MCBearerContextReleaseCommand

SUCCESSFUL OUTCOME MCBearerContextReleaseComplete

PROCEDURE CODE id-MCBearerContextRelease

CRITICALITY reject

}

mCBearerContextReleaseRequest E1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE MCBearerContextReleaseRequest

PROCEDURE CODE id-MCBearerContextReleaseRequest

CRITICALITY reject

}

END

-- ASN1STOP

9.4.4 PDU Definitions

-- ASN1START

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

--

-- PDU definitions for E1AP

--

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

E1AP-PDU-Contents {

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

ngran-access (22) modules (3) e1ap (5) version1 (1) e1ap-PDU-Contents (1) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

--

-- IE parameter types from other modules

--

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

IMPORTS

Cause,

CriticalityDiagnostics,

GNB-CU-CP-MBS-E1AP-ID,

GNB-CU-UP-MBS-E1AP-ID,

GNB-CU-CP-UE-E1AP-ID,

GNB-CU-UP-UE-E1AP-ID,

UE-associatedLogicalE1-ConnectionItem,

GNB-CU-UP-ID,

GNB-CU-UP-Name,

Extended-GNB-CU-UP-Name,

GNB-CU-CP-Name,

Extended-GNB-CU-CP-Name,

CNSupport,

PLMN-Identity,

Slice-Support-List,

NR-CGI-Support-List,

QoS-Parameters-Support-List,

SecurityInformation,

BitRate,

BearerContextStatusChange,

DRB-To-Setup-List-EUTRAN,

DRB-Setup-List-EUTRAN,

DRB-Failed-List-EUTRAN,

DRB-To-Modify-List-EUTRAN,

DRB-Measurement-Results-Information-List,

DRB-Modified-List-EUTRAN,

DRB-Failed-To-Modify-List-EUTRAN,

DRB-To-Remove-List-EUTRAN,

DRB-Required-To-Remove-List-EUTRAN,

DRB-Required-To-Modify-List-EUTRAN,

DRB-Confirm-Modified-List-EUTRAN,

DRB-To-Setup-Mod-List-EUTRAN,

DRB-Setup-Mod-List-EUTRAN,

DRB-Failed-Mod-List-EUTRAN,

ExtendedSliceSupportList,

PDU-Session-Resource-To-Setup-List,

PDU-Session-Resource-Setup-List,

PDU-Session-Resource-Failed-List,

PDU-Session-Resource-To-Modify-List,

PDU-Session-Resource-Modified-List,

PDU-Session-Resource-Failed-To-Modify-List,

PDU-Session-Resource-To-Remove-List,

PDU-Session-Resource-Required-To-Modify-List,

PDU-Session-Resource-Confirm-Modified-List,

PDU-Session-Resource-To-Setup-Mod-List,

PDU-Session-Resource-Setup-Mod-List,

PDU-Session-Resource-Failed-Mod-List,

PDU-Session-To-Notify-List,

DRB-Status-Item,

DRB-Activity-Item,

Data-Usage-Report-List,

TimeToWait,

ActivityNotificationLevel,

ActivityInformation,

New-UL-TNL-Information-Required,

GNB-CU-CP-TNLA-Setup-Item,

GNB-CU-CP-TNLA-Failed-To-Setup-Item,

GNB-CU-CP-TNLA-To-Add-Item,

GNB-CU-CP-TNLA-To-Remove-Item,

GNB-CU-CP-TNLA-To-Update-Item,

GNB-CU-UP-TNLA-To-Remove-Item,

TransactionID,

Inactivity-Timer,

DRBs-Subject-To-Counter-Check-List-EUTRAN,

DRBs-Subject-To-Counter-Check-List-NG-RAN,

PPI,

GNB-CU-UP-Capacity,

GNB-CU-UP-OverloadInformation,

DataDiscardRequired,

PDU-Session-Resource-Data-Usage-List,

RANUEID,

GNB-DU-ID,

TraceID,

TraceActivation,

SubscriberProfileIDforRFP,

AdditionalRRMPriorityIndex,

RetainabilityMeasurementsInfo,

Transport-Layer-Address-Info,

HW-CapacityIndicator,

RegistrationRequest,

ReportCharacteristics,

ReportingPeriodicity,

TNL-AvailableCapacityIndicator,

DLUPTNLAddressToUpdateItem,

ULUPTNLAddressToUpdateItem,

NPNContextInfo,

NPNSupportInfo,

MDTPLMNList,

PrivacyIndicator,

URIaddress,

DRBs-Subject-To-Early-Forwarding-List,

CHOInitiation,

ExtendedSliceSupportList,

TransportLayerAddress,

AdditionalHandoverInfo,

Extended-NR-CGI-Support-List,

DirectForwardingPathAvailability,

IAB-Donor-CU-UPPSKInfo-Item,

ECGI-Support-List,

MDTPollutedMeasurementIndicator,

UESliceMaximumBitRateList,

SCGActivationStatus,

GlobalMBSSessionID,

BCBearerContextToSetup,

BCBearerContextToSetupResponse,

BCBearerContextToModify,

BCBearerContextToModifyResponse,

BCBearerContextToModifyRequired,

BCBearerContextToModifyConfirm,

MCBearerContextToSetup,

MCBearerContextToSetupResponse,

MCBearerContextToModify,

MCBearerContextToModifyResponse,

MCBearerContextToModifyRequired,

MCBearerContextToModifyConfirm,

MBSMulticastF1UContextDescriptor,

GNB-CU-UP-MBS-Support-Info,

SDTContinueROHC,

MDTPLMNModificationList

FROM E1AP-IEs

PrivateIE-Container{},

ProtocolExtensionContainer{},

ProtocolIE-Container{},

ProtocolIE-ContainerList{},

ProtocolIE-SingleContainer{},

E1AP-PRIVATE-IES,

E1AP-PROTOCOL-EXTENSION,

E1AP-PROTOCOL-IES

FROM E1AP-Containers

id-Cause,

id-CriticalityDiagnostics,

id-gNB-CU-CP-UE-E1AP-ID,

id-gNB-CU-UP-UE-E1AP-ID,

id-ResetType,

id-UE-associatedLogicalE1-ConnectionItem,

id-UE-associatedLogicalE1-ConnectionListResAck,

id-gNB-CU-UP-ID,

id-gNB-CU-UP-Name,

id-Extended-GNB-CU-UP-Name,

id-gNB-CU-CP-Name,

id-Extended-GNB-CU-CP-Name,

id-CNSupport,

id-SupportedPLMNs,

id-NPNSupportInfo,

id-NPNContextInfo,

id-SecurityInformation,

id-UEDLAggregateMaximumBitRate,

id-BearerContextStatusChange,

id-System-BearerContextSetupRequest,

id-System-BearerContextSetupResponse,

id-System-BearerContextModificationRequest,

id-System-BearerContextModificationResponse,

id-System-BearerContextModificationConfirm,

id-System-BearerContextModificationRequired,

id-DRB-Status-List,

id-Data-Usage-Report-List,

id-TimeToWait,

id-ActivityNotificationLevel,

id-ActivityInformation,

id-New-UL-TNL-Information-Required,

id-GNB-CU-CP-TNLA-Setup-List,

id-GNB-CU-CP-TNLA-Failed-To-Setup-List,

id-GNB-CU-CP-TNLA-To-Add-List,

id-GNB-CU-CP-TNLA-To-Remove-List,

id-GNB-CU-CP-TNLA-To-Update-List,

id-GNB-CU-UP-TNLA-To-Remove-List,

id-DRB-To-Setup-List-EUTRAN,

id-DRB-To-Modify-List-EUTRAN,

id-DRB-To-Remove-List-EUTRAN,

id-DRB-Required-To-Modify-List-EUTRAN,

id-DRB-Required-To-Remove-List-EUTRAN,

id-DRB-Setup-List-EUTRAN,

id-DRB-Failed-List-EUTRAN,

id-DRB-Measurement-Results-Information-List,

id-DRB-Modified-List-EUTRAN,

id-DRB-Failed-To-Modify-List-EUTRAN,

id-DRB-Confirm-Modified-List-EUTRAN,

id-DRB-To-Setup-Mod-List-EUTRAN,

id-DRB-Setup-Mod-List-EUTRAN,

id-DRB-Failed-Mod-List-EUTRAN,

id-PDU-Session-Resource-To-Setup-List,

id-PDU-Session-Resource-To-Modify-List,

id-PDU-Session-Resource-To-Remove-List,

id-PDU-Session-Resource-Required-To-Modify-List,

id-PDU-Session-Resource-Setup-List,

id-PDU-Session-Resource-Failed-List,

id-PDU-Session-Resource-Modified-List,

id-PDU-Session-Resource-Failed-To-Modify-List,

id-PDU-Session-Resource-Confirm-Modified-List,

id-PDU-Session-Resource-Setup-Mod-List,

id-PDU-Session-Resource-Failed-Mod-List,

id-PDU-Session-Resource-To-Setup-Mod-List,

id-PDU-Session-To-Notify-List,

id-TransactionID,

id-Serving-PLMN,

id-UE-Inactivity-Timer,

id-System-GNB-CU-UP-CounterCheckRequest,

id-DRBs-Subject-To-Counter-Check-List-EUTRAN,

id-DRBs-Subject-To-Counter-Check-List-NG-RAN,

id-PPI,

id-gNB-CU-UP-Capacity,

id-GNB-CU-UP-OverloadInformation,

id-UEDLMaximumIntegrityProtectedDataRate,

id-DataDiscardRequired,

id-PDU-Session-Resource-Data-Usage-List,

id-RANUEID,

id-GNB-DU-ID,

id-TraceID,

id-TraceActivation,

id-SubscriberProfileIDforRFP,

id-AdditionalRRMPriorityIndex,

id-RetainabilityMeasurementsInfo,

id-Transport-Layer-Address-Info,

id-gNB-CU-CP-Measurement-ID,

id-gNB-CU-UP-Measurement-ID,

id-RegistrationRequest,

id-ReportCharacteristics,

id-ReportingPeriodicity,

id-TNL-AvailableCapacityIndicator,

id-HW-CapacityIndicator,

id-DLUPTNLAddressToUpdateList,

id-ULUPTNLAddressToUpdateList,

id-ManagementBasedMDTPLMNList,

id-TraceCollectionEntityIPAddress,

id-PrivacyIndicator,

id-URIaddress,

id-DRBs-Subject-To-Early-Forwarding-List,

id-CHOInitiation,

id-ExtendedSliceSupportList,

id-AdditionalHandoverInfo,

id-Extended-NR-CGI-Support-List,

id-DirectForwardingPathAvailability, id-IAB-Donor-CU-UPPSKInfo,

id-ECGI-Support-List,

id-MDTPollutedMeasurementIndicator,

id-UESliceMaximumBitRateList,

id-SCGActivationStatus,

id-GNB-CU-CP-MBS-E1AP-ID,

id-GNB-CU-UP-MBS-E1AP-ID,

id-GlobalMBSSessionID,

id-BCBearerContextToSetup,

id-BCBearerContextToSetupResponse,

id-BCBearerContextToModify,

id-BCBearerContextToModifyResponse,

id-BCBearerContextToModifyRequired,

id-BCBearerContextToModifyConfirm,

id-MCBearerContextToSetup,

id-MCBearerContextToSetupResponse,

id-MCBearerContextToModify,

id-MCBearerContextToModifyResponse,

id-MCBearerContextToModifyRequired,

id-MCBearerContextToModifyConfirm,

id-MBSMulticastF1UContextDescriptor,

id-gNB-CU-UP-MBS-Support-Info,

id-SDTContinueROHC,

id-ManagementBasedMDTPLMNModificationList,

maxnoofErrors,

maxnoofSPLMNs,

maxnoofDRBs,

maxnoofTNLAssociations,

maxnoofIndividualE1ConnectionsToReset,

maxnoofTNLAddresses,

maxnoofPSKs

FROM E1AP-Constants;

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

--

-- RESET

--

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

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

--

-- Reset

--

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

Reset ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {ResetIEs} },

...

}

ResetIEs E1AP-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 {

e1-Interface ResetAll,

partOfE1-Interface UE-associatedLogicalE1-ConnectionListRes,

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

}

ResetType-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

ResetAll ::= ENUMERATED {

reset-all,

...

}

UE-associatedLogicalE1-ConnectionListRes ::= SEQUENCE (SIZE(1.. maxnoofIndividualE1ConnectionsToReset)) OF ProtocolIE-SingleContainer { { UE-associatedLogicalE1-ConnectionItemRes } }

UE-associatedLogicalE1-ConnectionItemRes E1AP-PROTOCOL-IES ::= {

{ ID id-UE-associatedLogicalE1-ConnectionItem CRITICALITY reject TYPE UE-associatedLogicalE1-ConnectionItem PRESENCE mandatory},

...

}

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

--

-- Reset Acknowledge

--

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

ResetAcknowledge ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {ResetAcknowledgeIEs} },

...

}

ResetAcknowledgeIEs E1AP-PROTOCOL-IES ::= {

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

{ ID id-UE-associatedLogicalE1-ConnectionListResAck CRITICALITY ignore TYPE UE-associatedLogicalE1-ConnectionListResAck PRESENCE optional }|

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

...

}

UE-associatedLogicalE1-ConnectionListResAck ::= SEQUENCE (SIZE(1.. maxnoofIndividualE1ConnectionsToReset)) OF ProtocolIE-SingleContainer { { UE-associatedLogicalE1-ConnectionItemResAck } }

UE-associatedLogicalE1-ConnectionItemResAck E1AP-PROTOCOL-IES ::= {

{ ID id-UE-associatedLogicalE1-ConnectionItem CRITICALITY ignore TYPE UE-associatedLogicalE1-ConnectionItem PRESENCE mandatory },

...

}

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

--

-- ERROR INDICATION

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

ErrorIndication ::= SEQUENCE {

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

...

}

ErrorIndication-IEs E1AP-PROTOCOL-IES ::= {

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

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY ignore TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE optional}|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY ignore TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE optional}|

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

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

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY ignore TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE optional}|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY ignore TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE optional},

...

}

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

--

-- GNB-CU-UP E1 SETUP

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

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

--

-- GNB-CU-UP E1 Setup Request

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

GNB-CU-UP-E1SetupRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {GNB-CU-UP-E1SetupRequestIEs} },

...

}

GNB-CU-UP-E1SetupRequestIEs E1AP-PROTOCOL-IES ::= {

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

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

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

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

{ ID id-SupportedPLMNs CRITICALITY reject TYPE SupportedPLMNs-List PRESENCE mandatory }|

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

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

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

{ ID id-gNB-CU-UP-MBS-Support-Info CRITICALITY reject TYPE GNB-CU-UP-MBS-Support-Info PRESENCE optional },

...

}

SupportedPLMNs-List ::= SEQUENCE (SIZE (1..maxnoofSPLMNs)) OF SupportedPLMNs-Item

SupportedPLMNs-Item ::= SEQUENCE {

pLMN-Identity PLMN-Identity,

slice-Support-List Slice-Support-List OPTIONAL,

nR-CGI-Support-List NR-CGI-Support-List OPTIONAL,

qoS-Parameters-Support-List QoS-Parameters-Support-List OPTIONAL,

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

...

}

SupportedPLMNs-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ ID id-NPNSupportInfo CRITICALITY reject EXTENSION NPNSupportInfo PRESENCE optional}|

{ ID id-ExtendedSliceSupportList CRITICALITY reject EXTENSION ExtendedSliceSupportList PRESENCE optional}|

{ ID id-Extended-NR-CGI-Support-List CRITICALITY ignore EXTENSION Extended-NR-CGI-Support-List PRESENCE optional}|

{ ID id-ECGI-Support-List CRITICALITY ignore EXTENSION ECGI-Support-List PRESENCE optional},

...

}

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

--

-- GNB-CU-UP E1 Setup Response

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

GNB-CU-UP-E1SetupResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {GNB-CU-UP-E1SetupResponseIEs} },

...

}

GNB-CU-UP-E1SetupResponseIEs E1AP-PROTOCOL-IES ::= {

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

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

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

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

...

}

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

--

-- GNB-CU-UP E1 Setup Failure

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

GNB-CU-UP-E1SetupFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {GNB-CU-UP-E1SetupFailureIEs} },

...

}

GNB-CU-UP-E1SetupFailureIEs E1AP-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-CP E1 SETUP

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

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

--

-- GNB-CU-CP E1 Setup Request

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

GNB-CU-CP-E1SetupRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {GNB-CU-CP-E1SetupRequestIEs} },

...

}

GNB-CU-CP-E1SetupRequestIEs E1AP-PROTOCOL-IES ::= {

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

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

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

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

...

}

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

--

-- GNB-CU-CP E1 Setup Response

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

GNB-CU-CP-E1SetupResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {GNB-CU-CP-E1SetupResponseIEs} },

...

}

GNB-CU-CP-E1SetupResponseIEs E1AP-PROTOCOL-IES ::= {

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

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

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

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

{ ID id-SupportedPLMNs CRITICALITY reject TYPE SupportedPLMNs-List PRESENCE mandatory }|

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

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

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

...

}

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

--

-- GNB-CU-CP E1 Setup Failure

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

GNB-CU-CP-E1SetupFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {GNB-CU-CP-E1SetupFailureIEs} },

...

}

GNB-CU-CP-E1SetupFailureIEs E1AP-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-UP CONFIGURATION UPDATE

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

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

--

-- GNB-CU-UP Configuration Update

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

GNB-CU-UP-ConfigurationUpdate ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {GNB-CU-UP-ConfigurationUpdateIEs} },

...

}

GNB-CU-UP-ConfigurationUpdateIEs E1AP-PROTOCOL-IES ::= {

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

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

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

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

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

{ ID id-GNB-CU-UP-TNLA-To-Remove-List CRITICALITY reject TYPE GNB-CU-UP-TNLA-To-Remove-List PRESENCE optional }|

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

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

{ ID id-gNB-CU-UP-MBS-Support-Info CRITICALITY reject TYPE GNB-CU-UP-MBS-Support-Info PRESENCE optional },

...

}

GNB-CU-UP-TNLA-To-Remove-List ::= SEQUENCE (SIZE(1.. maxnoofTNLAssociations)) OF GNB-CU-UP-TNLA-To-Remove-Item

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

--

-- GNB-CU-UP Configuration Update Acknowledge

--

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

GNB-CU-UP-ConfigurationUpdateAcknowledge ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {GNB-CU-UP-ConfigurationUpdateAcknowledgeIEs} },

...

}

GNB-CU-UP-ConfigurationUpdateAcknowledgeIEs E1AP-PROTOCOL-IES ::= {

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

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

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

...

}

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

--

-- GNB-CU-UP Configuration Update Failure

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

GNB-CU-UP-ConfigurationUpdateFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {GNB-CU-UP-ConfigurationUpdateFailureIEs} },

...

}

GNB-CU-UP-ConfigurationUpdateFailureIEs E1AP-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-CP CONFIGURATION UPDATE

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

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

--

-- GNB-CU-CP Configuration Update

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

GNB-CU-CP-ConfigurationUpdate ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {GNB-CU-CP-ConfigurationUpdateIEs} },

...

}

GNB-CU-CP-ConfigurationUpdateIEs E1AP-PROTOCOL-IES ::= {

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

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

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

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

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

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

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

...

}

GNB-CU-CP-TNLA-To-Add-List ::= SEQUENCE (SIZE(1.. maxnoofTNLAssociations)) OF GNB-CU-CP-TNLA-To-Add-Item

GNB-CU-CP-TNLA-To-Remove-List ::= SEQUENCE (SIZE(1.. maxnoofTNLAssociations)) OF GNB-CU-CP-TNLA-To-Remove-Item

GNB-CU-CP-TNLA-To-Update-List ::= SEQUENCE (SIZE(1.. maxnoofTNLAssociations)) OF GNB-CU-CP-TNLA-To-Update-Item

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

--

-- GNB-CU-CP Configuration Update Acknowledge

--

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

GNB-CU-CP-ConfigurationUpdateAcknowledge ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {GNB-CU-CP-ConfigurationUpdateAcknowledgeIEs} },

...

}

GNB-CU-CP-ConfigurationUpdateAcknowledgeIEs E1AP-PROTOCOL-IES ::= {

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

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

{ ID id-GNB-CU-CP-TNLA-Setup-List CRITICALITY ignore TYPE GNB-CU-CP-TNLA-Setup-List PRESENCE optional }|

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

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

...

}

GNB-CU-CP-TNLA-Setup-List ::= SEQUENCE (SIZE(1.. maxnoofTNLAssociations)) OF GNB-CU-CP-TNLA-Setup-Item

GNB-CU-CP-TNLA-Failed-To-Setup-List ::= SEQUENCE (SIZE(1.. maxnoofTNLAssociations)) OF GNB-CU-CP-TNLA-Failed-To-Setup-Item

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

--

-- GNB-CU-CP Configuration Update Failure

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

GNB-CU-CP-ConfigurationUpdateFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {GNB-CU-CP-ConfigurationUpdateFailureIEs} },

...

}

GNB-CU-CP-ConfigurationUpdateFailureIEs E1AP-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 },

...

}

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

--

-- E1 RELEASE

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

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

--

-- E1 Release Request

--

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

E1ReleaseRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {E1ReleaseRequestIEs} },

...

}

E1ReleaseRequestIEs E1AP-PROTOCOL-IES ::= {

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

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

...

}

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

--

-- E1 Release Response

--

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

E1ReleaseResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {E1ReleaseResponseIEs} },

...

}

E1ReleaseResponseIEs E1AP-PROTOCOL-IES ::= {

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

...

}

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

--

-- BEARER CONTEXT SETUP

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

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

--

-- Bearer Context Setup Request

--

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

BearerContextSetupRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BearerContextSetupRequestIEs} },

...

}

BearerContextSetupRequestIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory }|

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

{ ID id-UEDLAggregateMaximumBitRate CRITICALITY reject TYPE BitRate PRESENCE mandatory }|

{ ID id-UEDLMaximumIntegrityProtectedDataRate CRITICALITY reject TYPE BitRate PRESENCE optional }|

{ ID id-Serving-PLMN CRITICALITY ignore TYPE PLMN-Identity PRESENCE mandatory }|

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

{ ID id-UE-Inactivity-Timer CRITICALITY reject TYPE Inactivity-Timer PRESENCE optional }|

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

{ ID id-System-BearerContextSetupRequest CRITICALITY reject TYPE System-BearerContextSetupRequest PRESENCE mandatory }|

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

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

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

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

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

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

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

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

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY ignore TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE optional }|

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

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

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

...

}

System-BearerContextSetupRequest ::= CHOICE {

e-UTRAN-BearerContextSetupRequest ProtocolIE-Container {{EUTRAN-BearerContextSetupRequest}},

nG-RAN-BearerContextSetupRequest ProtocolIE-Container {{NG-RAN-BearerContextSetupRequest}},

choice-extension ProtocolIE-SingleContainer {{System-BearerContextSetupRequest-ExtIEs}}

}

System-BearerContextSetupRequest-ExtIEs E1AP-PROTOCOL-IES::= {

...

}

EUTRAN-BearerContextSetupRequest E1AP-PROTOCOL-IES ::= {

{ ID id-DRB-To-Setup-List-EUTRAN CRITICALITY reject TYPE DRB-To-Setup-List-EUTRAN PRESENCE mandatory }|

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

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

...

}

NG-RAN-BearerContextSetupRequest E1AP-PROTOCOL-IES ::= {

{ ID id-PDU-Session-Resource-To-Setup-List CRITICALITY reject TYPE PDU-Session-Resource-To-Setup-List PRESENCE mandatory },

...

}

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

--

-- Bearer Context Setup Response

--

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

BearerContextSetupResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BearerContextSetupResponseIEs} },

...

}

BearerContextSetupResponseIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-System-BearerContextSetupResponse CRITICALITY ignore TYPE System-BearerContextSetupResponse PRESENCE mandatory },

...

}

System-BearerContextSetupResponse::= CHOICE {

e-UTRAN-BearerContextSetupResponse ProtocolIE-Container {{EUTRAN-BearerContextSetupResponse}},

nG-RAN-BearerContextSetupResponse ProtocolIE-Container {{NG-RAN-BearerContextSetupResponse}},

choice-extension ProtocolIE-SingleContainer {{System-BearerContextSetupResponse-ExtIEs}}

}

System-BearerContextSetupResponse-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

EUTRAN-BearerContextSetupResponse E1AP-PROTOCOL-IES ::= {

{ ID id-DRB-Setup-List-EUTRAN CRITICALITY ignore TYPE DRB-Setup-List-EUTRAN PRESENCE mandatory }|

{ ID id-DRB-Failed-List-EUTRAN CRITICALITY ignore TYPE DRB-Failed-List-EUTRAN PRESENCE optional },

...

}

NG-RAN-BearerContextSetupResponse E1AP-PROTOCOL-IES ::= {

{ ID id-PDU-Session-Resource-Setup-List CRITICALITY ignore TYPE PDU-Session-Resource-Setup-List PRESENCE mandatory }|

{ ID id-PDU-Session-Resource-Failed-List CRITICALITY ignore TYPE PDU-Session-Resource-Failed-List PRESENCE optional },

...

}

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

--

-- Bearer Context Setup Failure

--

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

BearerContextSetupFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BearerContextSetupFailureIEs} },

...

}

BearerContextSetupFailureIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY ignore TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE optional }|

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

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

...

}

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

--

-- BEARER CONTEXT MODIFICATION

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

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

--

-- Bearer Context Modification Request

--

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

BearerContextModificationRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BearerContextModificationRequestIEs} },

...

}

BearerContextModificationRequestIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE mandatory }|

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

{ ID id-UEDLAggregateMaximumBitRate CRITICALITY reject TYPE BitRate PRESENCE optional }|

{ ID id-UEDLMaximumIntegrityProtectedDataRate CRITICALITY reject TYPE BitRate PRESENCE optional }|

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

{ ID id-New-UL-TNL-Information-Required CRITICALITY reject TYPE New-UL-TNL-Information-Required PRESENCE optional }|

{ ID id-UE-Inactivity-Timer CRITICALITY reject TYPE Inactivity-Timer PRESENCE optional }|

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

{ ID id-System-BearerContextModificationRequest CRITICALITY reject TYPE System-BearerContextModificationRequest PRESENCE optional }|

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

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

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

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

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

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

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

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

...

}

System-BearerContextModificationRequest ::= CHOICE {

e-UTRAN-BearerContextModificationRequest ProtocolIE-Container {{EUTRAN-BearerContextModificationRequest}},

nG-RAN-BearerContextModificationRequest ProtocolIE-Container {{NG-RAN-BearerContextModificationRequest}},

choice-extension ProtocolIE-SingleContainer {{System-BearerContextModificationRequest-ExtIEs}}

}

System-BearerContextModificationRequest-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

EUTRAN-BearerContextModificationRequest E1AP-PROTOCOL-IES ::= {

{ ID id-DRB-To-Setup-Mod-List-EUTRAN CRITICALITY reject TYPE DRB-To-Setup-Mod-List-EUTRAN PRESENCE optional }|

{ ID id-DRB-To-Modify-List-EUTRAN CRITICALITY reject TYPE DRB-To-Modify-List-EUTRAN PRESENCE optional }|

{ ID id-DRB-To-Remove-List-EUTRAN CRITICALITY reject TYPE DRB-To-Remove-List-EUTRAN PRESENCE optional }|

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

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

...

}

NG-RAN-BearerContextModificationRequest E1AP-PROTOCOL-IES ::= {

{ ID id-PDU-Session-Resource-To-Setup-Mod-List CRITICALITY reject TYPE PDU-Session-Resource-To-Setup-Mod-List PRESENCE optional }|

{ ID id-PDU-Session-Resource-To-Modify-List CRITICALITY reject TYPE PDU-Session-Resource-To-Modify-List PRESENCE optional }|

{ ID id-PDU-Session-Resource-To-Remove-List CRITICALITY reject TYPE PDU-Session-Resource-To-Remove-List PRESENCE optional },

...

}

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

--

-- Bearer Context Modification Response

--

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

BearerContextModificationResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BearerContextModificationResponseIEs} },

...

}

BearerContextModificationResponseIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-System-BearerContextModificationResponse CRITICALITY ignore TYPE System-BearerContextModificationResponse PRESENCE optional },

...

}

System-BearerContextModificationResponse ::= CHOICE {

e-UTRAN-BearerContextModificationResponse ProtocolIE-Container {{EUTRAN-BearerContextModificationResponse}},

nG-RAN-BearerContextModificationResponse ProtocolIE-Container {{NG-RAN-BearerContextModificationResponse}},

choice-extension ProtocolIE-SingleContainer {{System-BearerContextModificationResponse-ExtIEs}}

}

System-BearerContextModificationResponse-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

EUTRAN-BearerContextModificationResponse E1AP-PROTOCOL-IES ::= {

{ ID id-DRB-Setup-Mod-List-EUTRAN CRITICALITY ignore TYPE DRB-Setup-Mod-List-EUTRAN PRESENCE optional }|

{ ID id-DRB-Failed-Mod-List-EUTRAN CRITICALITY ignore TYPE DRB-Failed-Mod-List-EUTRAN PRESENCE optional }|

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

{ ID id-DRB-Failed-To-Modify-List-EUTRAN CRITICALITY ignore TYPE DRB-Failed-To-Modify-List-EUTRAN PRESENCE optional }|

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

...

}

NG-RAN-BearerContextModificationResponse E1AP-PROTOCOL-IES ::= {

{ ID id-PDU-Session-Resource-Setup-Mod-List CRITICALITY reject TYPE PDU-Session-Resource-Setup-Mod-List PRESENCE optional }|

{ ID id-PDU-Session-Resource-Failed-Mod-List CRITICALITY reject TYPE PDU-Session-Resource-Failed-Mod-List PRESENCE optional }|

{ ID id-PDU-Session-Resource-Modified-List CRITICALITY reject TYPE PDU-Session-Resource-Modified-List PRESENCE optional }|

{ ID id-PDU-Session-Resource-Failed-To-Modify-List CRITICALITY reject TYPE PDU-Session-Resource-Failed-To-Modify-List PRESENCE optional }|

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

...

}

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

--

-- Bearer Context Modification Failure

--

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

BearerContextModificationFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BearerContextModificationFailureIEs} },

...

}

BearerContextModificationFailureIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE mandatory }|

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

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

...

}

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

--

-- BEARER CONTEXT MODIFICATION REQUIRED

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

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

--

-- Bearer Context Modification Required

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

BearerContextModificationRequired ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BearerContextModificationRequiredIEs} },

...

}

BearerContextModificationRequiredIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-System-BearerContextModificationRequired CRITICALITY reject TYPE System-BearerContextModificationRequired PRESENCE mandatory },

...

}

System-BearerContextModificationRequired ::= CHOICE {

e-UTRAN-BearerContextModificationRequired ProtocolIE-Container {{EUTRAN-BearerContextModificationRequired}},

nG-RAN-BearerContextModificationRequired ProtocolIE-Container {{NG-RAN-BearerContextModificationRequired}},

choice-extension ProtocolIE-SingleContainer {{System-BearerContextModificationRequired-ExtIEs}}

}

System-BearerContextModificationRequired-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

EUTRAN-BearerContextModificationRequired E1AP-PROTOCOL-IES ::= {

{ ID id-DRB-Required-To-Modify-List-EUTRAN CRITICALITY reject TYPE DRB-Required-To-Modify-List-EUTRAN PRESENCE optional }|

{ ID id-DRB-Required-To-Remove-List-EUTRAN CRITICALITY reject TYPE DRB-Required-To-Remove-List-EUTRAN PRESENCE optional },

...

}

NG-RAN-BearerContextModificationRequired E1AP-PROTOCOL-IES ::= {

{ ID id-PDU-Session-Resource-Required-To-Modify-List CRITICALITY reject TYPE PDU-Session-Resource-Required-To-Modify-List PRESENCE optional }|

{ ID id-PDU-Session-Resource-To-Remove-List CRITICALITY reject TYPE PDU-Session-Resource-To-Remove-List PRESENCE optional },

...

}

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

--

-- Bearer Context Modification Confirm

--

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

BearerContextModificationConfirm ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BearerContextModificationConfirmIEs} },

...

}

BearerContextModificationConfirmIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-System-BearerContextModificationConfirm CRITICALITY ignore TYPE System-BearerContextModificationConfirm PRESENCE optional },

...

}

System-BearerContextModificationConfirm ::= CHOICE {

e-UTRAN-BearerContextModificationConfirm ProtocolIE-Container {{EUTRAN-BearerContextModificationConfirm}},

nG-RAN-BearerContextModificationConfirm ProtocolIE-Container {{NG-RAN-BearerContextModificationConfirm}},

choice-extension ProtocolIE-SingleContainer {{System-BearerContextModificationConfirm-ExtIEs}}

}

System-BearerContextModificationConfirm-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

EUTRAN-BearerContextModificationConfirm E1AP-PROTOCOL-IES ::= {

{ ID id-DRB-Confirm-Modified-List-EUTRAN CRITICALITY ignore TYPE DRB-Confirm-Modified-List-EUTRAN PRESENCE optional },

...

}

NG-RAN-BearerContextModificationConfirm E1AP-PROTOCOL-IES ::= {

{ ID id-PDU-Session-Resource-Confirm-Modified-List CRITICALITY ignore TYPE PDU-Session-Resource-Confirm-Modified-List PRESENCE optional },

...

}

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

--

-- BEARER CONTEXT RELEASE

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

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--

-- Bearer Context Release Command

--

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

BearerContextReleaseCommand ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BearerContextReleaseCommandIEs} },

...

}

BearerContextReleaseCommandIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE mandatory }|

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

...

}

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

--

-- Bearer Context Release Complete

--

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

BearerContextReleaseComplete ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BearerContextReleaseCompleteIEs} },

...

}

BearerContextReleaseCompleteIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE mandatory }|

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

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

...

}

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

--

-- BEARER CONTEXT RELEASE REQUEST

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

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--

-- Bearer Context Release Request

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

BearerContextReleaseRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BearerContextReleaseRequestIEs} },

...

}

BearerContextReleaseRequestIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE mandatory }|

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

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

...

}

DRB-Status-List ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF DRB-Status-Item

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

--

-- BEARER CONTEXT INACTIVITY NOTIFICATION

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

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

--

-- Bearer Context Inactivity Notification

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

BearerContextInactivityNotification ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BearerContextInactivityNotificationIEs } },

...

}

BearerContextInactivityNotificationIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE mandatory }|

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

...

}

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

--

-- DL DATA NOTIFICATION

--

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

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

--

-- DL Data Notification

--

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

DLDataNotification ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { DLDataNotificationIEs } },

...

}

DLDataNotificationIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE mandatory }|

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

{ ID id-PDU-Session-To-Notify-List CRITICALITY ignore TYPE PDU-Session-To-Notify-List PRESENCE optional },

...

}

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

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

--

-- UL Data Notification

--

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

ULDataNotification ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { ULDataNotificationIEs } },

...

}

ULDataNotificationIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-PDU-Session-To-Notify-List CRITICALITY reject TYPE PDU-Session-To-Notify-List PRESENCE mandatory },

...

}

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

--

-- DATA USAGE REPORT

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

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

--

-- Data Usage Report

--

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

DataUsageReport ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { DataUsageReportIEs } },

...

}

DataUsageReportIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-Data-Usage-Report-List CRITICALITY ignore TYPE Data-Usage-Report-List PRESENCE mandatory },

...

}

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

--

-- GNB-CU-UP COUNTER CHECK

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

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

--

-- gNB-CU-UP Counter Check Request

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

GNB-CU-UP-CounterCheckRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { GNB-CU-UP-CounterCheckRequestIEs } },

...

}

GNB-CU-UP-CounterCheckRequestIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-System-GNB-CU-UP-CounterCheckRequest CRITICALITY reject TYPE System-GNB-CU-UP-CounterCheckRequest PRESENCE mandatory },

...

}

System-GNB-CU-UP-CounterCheckRequest ::= CHOICE {

e-UTRAN-GNB-CU-UP-CounterCheckRequest ProtocolIE-Container {{EUTRAN-GNB-CU-UP-CounterCheckRequest}},

nG-RAN-GNB-CU-UP-CounterCheckRequest ProtocolIE-Container {{NG-RAN-GNB-CU-UP-CounterCheckRequest}},

choice-extension ProtocolIE-SingleContainer {{System-GNB-CU-UP-CounterCheckRequest-ExtIEs}}

}

System-GNB-CU-UP-CounterCheckRequest-ExtIEs E1AP-PROTOCOL-IES::= {

...

}

EUTRAN-GNB-CU-UP-CounterCheckRequest E1AP-PROTOCOL-IES ::= {

{ ID id-DRBs-Subject-To-Counter-Check-List-EUTRAN CRITICALITY ignore TYPE DRBs-Subject-To-Counter-Check-List-EUTRAN PRESENCE mandatory },

...

}

NG-RAN-GNB-CU-UP-CounterCheckRequest E1AP-PROTOCOL-IES ::= {

{ ID id-DRBs-Subject-To-Counter-Check-List-NG-RAN CRITICALITY ignore TYPE DRBs-Subject-To-Counter-Check-List-NG-RAN PRESENCE mandatory },

...

}

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

--

-- gNB-CU-UP STATUS INDICATION ELEMENTARY PROCEDURE

--

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

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

--

-- gNB-CU-UP Status Indication

--

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

GNB-CU-UP-StatusIndication ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { GNB-CU-UP-StatusIndicationIEs} },

...

}

GNB-CU-UP-StatusIndicationIEs E1AP-PROTOCOL-IES ::= {

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

{ ID id-GNB-CU-UP-OverloadInformation CRITICALITY reject TYPE GNB-CU-UP-OverloadInformation PRESENCE mandatory },

...

}

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

--

-- gNB-CU-CP MEASUREMENT RESULTS INFORMATION

--

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

GNB-CU-CPMeasurementResultsInformation ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { GNB-CU-CPMeasurementResultsInformationIEs } },

...

}

GNB-CU-CPMeasurementResultsInformationIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory}|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE mandatory}|

{ ID id-DRB-Measurement-Results-Information-List CRITICALITY ignore TYPE DRB-Measurement-Results-Information-List PRESENCE mandatory},

...

}

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

--

-- MR-DC DATA USAGE REPORT

--

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

MRDC-DataUsageReport ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { MRDC-DataUsageReportIEs } },

...

}

MRDC-DataUsageReportIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory}|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE mandatory}|

{ ID id-PDU-Session-Resource-Data-Usage-List CRITICALITY ignore TYPE PDU-Session-Resource-Data-Usage-List PRESENCE mandatory},

...

}

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

--

-- TRACE ELEMENTARY PROCEDURES

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

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

--

-- TRACE START

--

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

TraceStart ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {TraceStartIEs} },

...

}

TraceStartIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-TraceActivation CRITICALITY ignore TYPE TraceActivation PRESENCE mandatory },

...

}

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

--

-- DEACTIVATE TRACE

--

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

DeactivateTrace ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {DeactivateTraceIEs} },

...

}

DeactivateTraceIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-TraceID CRITICALITY ignore TYPE TraceID PRESENCE mandatory },

...

}

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

--

-- CELL TRAFFIC TRACE

--

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

CellTrafficTrace ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { CellTrafficTraceIEs } },

...

}

CellTrafficTraceIEs E1AP-PROTOCOL-IES ::= {

{ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory }|

{ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-UE-E1AP-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-URIaddress CRITICALITY ignore TYPE URIaddress PRESENCE optional},

...

}

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

--

-- PRIVATE MESSAGE

--

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

PrivateMessage ::= SEQUENCE {

privateIEs PrivateIE-Container {{PrivateMessage-IEs}},

...

}

PrivateMessage-IEs E1AP-PRIVATE-IES ::= {

...

}

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

--

-- RESOURCE STATUS REQUEST

--

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

ResourceStatusRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { ResourceStatusRequestIEs } },

...

}

ResourceStatusRequestIEs E1AP-PROTOCOL-IES ::= {

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

{ ID id-gNB-CU-CP-Measurement-ID CRITICALITY reject TYPE INTEGER (1..4095, ...) PRESENCE mandatory}|

{ ID id-gNB-CU-UP-Measurement-ID CRITICALITY ignore TYPE INTEGER (1..4095, ...) PRESENCE optional}|

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

{ ID id-ReportCharacteristics CRITICALITY reject TYPE ReportCharacteristics PRESENCE conditional}|

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

...

}

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

--

-- RESOURCE STATUS RESPONSE

--

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

ResourceStatusResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { ResourceStatusResponseIEs } },

...

}

ResourceStatusResponseIEs E1AP-PROTOCOL-IES ::= {

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

{ ID id-gNB-CU-CP-Measurement-ID CRITICALITY reject TYPE INTEGER (1..4095, ...) PRESENCE mandatory}|

{ ID id-gNB-CU-UP-Measurement-ID CRITICALITY ignore TYPE INTEGER (1..4095, ...) PRESENCE mandatory}|

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

...

}

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

--

-- RESOURCE STATUS FAILURE

--

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

ResourceStatusFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { ResourceStatusFailureIEs } },

...

}

ResourceStatusFailureIEs E1AP-PROTOCOL-IES ::= {

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

{ ID id-gNB-CU-CP-Measurement-ID CRITICALITY reject TYPE INTEGER (1..4095, ...) PRESENCE mandatory}|

{ ID id-gNB-CU-UP-Measurement-ID CRITICALITY ignore TYPE INTEGER (1..4095, ...) PRESENCE optional}|

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

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

...

}

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

--

-- RESOURCE STATUS UPDATE

--

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

ResourceStatusUpdate ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { ResourceStatusUpdateIEs } },

...

}

ResourceStatusUpdateIEs E1AP-PROTOCOL-IES ::= {

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

{ ID id-gNB-CU-CP-Measurement-ID CRITICALITY reject TYPE INTEGER (1..4095, ...) PRESENCE mandatory}|

{ ID id-gNB-CU-UP-Measurement-ID CRITICALITY ignore TYPE INTEGER (1..4095, ...) PRESENCE optional}|

{ ID id-TNL-AvailableCapacityIndicator CRITICALITY ignore TYPE TNL-AvailableCapacityIndicator PRESENCE optional}|

{ ID id-HW-CapacityIndicator CRITICALITY ignore TYPE HW-CapacityIndicator PRESENCE mandatory},

...

}

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

--

-- IAB UP TNL ADDRESS UPDATE

--

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

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

--

-- IAB UP TNL Address Update

--

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

IAB-UPTNLAddressUpdate ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { IAB-UPTNLAddressUpdateIEs} },

...

}

IAB-UPTNLAddressUpdateIEs E1AP-PROTOCOL-IES ::= {

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

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

...

}

DLUPTNLAddressToUpdateList ::= SEQUENCE (SIZE(1.. maxnoofTNLAddresses)) OF DLUPTNLAddressToUpdateItem

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

--

-- IAB UP TNL Address Update Acknowledge

--

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

IAB-UPTNLAddressUpdateAcknowledge ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { IAB-UPTNLAddressUpdateAcknowledgeIEs} },

...

}

IAB-UPTNLAddressUpdateAcknowledgeIEs E1AP-PROTOCOL-IES ::= {

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

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

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

...

}

ULUPTNLAddressToUpdateList ::= SEQUENCE (SIZE(1.. maxnoofTNLAddresses)) OF ULUPTNLAddressToUpdateItem

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

--

-- IAB UP TNL Address Update Failure

--

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

IAB-UPTNLAddressUpdateFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {IAB-UPTNLAddressUpdateFailureIEs} },

...

}

IAB-UPTNLAddressUpdateFailureIEs E1AP-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 },

...

}

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

--

-- EARLY FORWARDING SN TRANSFER

--

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

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

--

-- Early Forwarding SN Transfer

--

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

EarlyForwardingSNTransfer ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { EarlyForwardingSNTransferIEs } },

...

}

EarlyForwardingSNTransferIEs E1AP-PROTOCOL-IES ::= {

{ ID id-gNB-CU-CP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-gNB-CU-UP-UE-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-UE-E1AP-ID PRESENCE mandatory }|

{ ID id-DRBs-Subject-To-Early-Forwarding-List CRITICALITY reject TYPE DRBs-Subject-To-Early-Forwarding-List PRESENCE mandatory },

...

}

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

--

-- IAB PSK NOTIFICATION

--

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

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

--

-- IAB PSK Notification

--

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

IABPSKNotification ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { IABPSKNotificationIEs } },

...

}

IABPSKNotificationIEs E1AP-PROTOCOL-IES ::= {

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

{ ID id-IAB-Donor-CU-UPPSKInfo CRITICALITY reject TYPE IAB-Donor-CU-UPPSKInfo PRESENCE mandatory },

...

}

IAB-Donor-CU-UPPSKInfo ::= SEQUENCE (SIZE(1.. maxnoofPSKs)) OF IAB-Donor-CU-UPPSKInfo-Item

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

--

-- BC BEARER CONTEXT SETUP

--

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

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

--

-- BC BEARER CONTEXT SETUP REQUEST

--

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

BCBearerContextSetupRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BCBearerContextSetupRequestIEs } },

...

}

BCBearerContextSetupRequestIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

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

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

...

}

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

--

-- BC BEARER CONTEXT SETUP RESPONSE

--

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

BCBearerContextSetupResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BCBearerContextSetupResponseIEs } },

...

}

BCBearerContextSetupResponseIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE mandatory }|

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

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

...

}

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

--

-- BC BEARER CONTEXT SETUP FAILURE

--

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

BCBearerContextSetupFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BCBearerContextSetupFailureIEs } },

...

}

BCBearerContextSetupFailureIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY ignore TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE optional }|

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

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

...

}

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

--

-- BC BEARER CONTEXT MODIFICATION

--

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

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

--

-- BC BEARER CONTEXT MODIFICATION REQUEST

--

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

BCBearerContextModificationRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BCBearerContextModificationRequestIEs } },

...

}

BCBearerContextModificationRequestIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE mandatory }|

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

...

}

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

--

-- BC BEARER CONTEXT MODIFICATION RESPONSE

--

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

BCBearerContextModificationResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BCBearerContextModificationResponseIEs } },

...

}

BCBearerContextModificationResponseIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE mandatory }|

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

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

...

}

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

--

-- BC BEARER CONTEXT MODIFICATION FAILURE

--

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

BCBearerContextModificationFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BCBearerContextModificationFailureIEs } },

...

}

BCBearerContextModificationFailureIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE mandatory }|

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

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

...

}

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

--

-- BC BEARER CONTEXT MODIFICATION REQUIRED

--

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

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

--

-- BC BEARER CONTEXT MODIFICATION REQUIRED

--

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

BCBearerContextModificationRequired ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BCBearerContextModificationRequiredIEs } },

...

}

BCBearerContextModificationRequiredIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE mandatory }|

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

...

}

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

--

-- BC BEARER CONTEXT MODIFICATION CONFIRM

--

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

BCBearerContextModificationConfirm ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BCBearerContextModificationConfirmIEs } },

...

}

BCBearerContextModificationConfirmIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE mandatory }|

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

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

...

}

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

--

-- BC BEARER CONTEXT RELEASE

--

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

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

--

-- BC BEARER CONTEXT RELEASE COMMAND

--

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

BCBearerContextReleaseCommand ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BCBearerContextReleaseCommandIEs } },

...

}

BCBearerContextReleaseCommandIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE mandatory }|

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

...

}

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

--

-- BC BEARER CONTEXT RELEASE COMPLETE

--

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

BCBearerContextReleaseComplete ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BCBearerContextReleaseCompleteIEs } },

...

}

BCBearerContextReleaseCompleteIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE mandatory }|

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

...

}

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

--

-- BC BEARER CONTEXT RELEASE REQUEST

--

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

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

--

-- BC BEARER CONTEXT RELEASE REQUEST

--

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

BCBearerContextReleaseRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { BCBearerContextReleaseRequestIEs } },

...

}

BCBearerContextReleaseRequestIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE mandatory }|

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

...

}

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

--

-- MC BEARER CONTEXT SETUP

--

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

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

--

-- MC BEARER CONTEXT SETUP REQUEST

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

MCBearerContextSetupRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { MCBearerContextSetupRequestIEs } },

...

}

MCBearerContextSetupRequestIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

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

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

...

}

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

--

-- MC BEARER CONTEXT SETUP RESPONSE

--

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

MCBearerContextSetupResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { MCBearerContextSetupResponseIEs } },

...

}

MCBearerContextSetupResponseIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE mandatory }|

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

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

...

}

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

--

-- MC BEARER CONTEXT SETUP FAILURE

--

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

MCBearerContextSetupFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { MCBearerContextSetupFailureIEs } },

...

}

MCBearerContextSetupFailureIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY ignore TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE optional }|

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

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

...

}

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

--

-- MC BEARER CONTEXT MODIFICATION

--

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

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

--

-- MC BEARER CONTEXT MODIFICATION REQUEST

--

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

MCBearerContextModificationRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { MCBearerContextModificationRequestIEs } },

...

}

MCBearerContextModificationRequestIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE mandatory }|

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

...

}

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

--

-- MC BEARER CONTEXT MODIFICATION RESPONSE

--

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

MCBearerContextModificationResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { MCBearerContextModificationResponseIEs } },

...

}

MCBearerContextModificationResponseIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE mandatory }|

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

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

...

}

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

--

-- MC BEARER CONTEXT MODIFICATION FAILURE

--

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

MCBearerContextModificationFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { MCBearerContextModificationFailureIEs } },

...

}

MCBearerContextModificationFailureIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-MBSMulticastF1UContextDescriptor CRITICALITY reject TYPE MBSMulticastF1UContextDescriptor PRESENCE optional }|

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

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

...

}

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

--

-- MC BEARER CONTEXT MODIFICATION REQUIRED

--

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

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

--

-- MC BEARER CONTEXT MODIFICATION REQUIRED

--

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

MCBearerContextModificationRequired ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { MCBearerContextModificationRequiredIEs } },

...

}

MCBearerContextModificationRequiredIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-MCBearerContextToModifyRequired CRITICALITY ignore TYPE MCBearerContextToModifyRequired PRESENCE mandatory },

...

}

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

--

-- MC BEARER CONTEXT MODIFICATION CONFIRM

--

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

MCBearerContextModificationConfirm ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { MCBearerContextModificationConfirmIEs } },

...

}

MCBearerContextModificationConfirmIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE mandatory }|

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

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

...

}

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

--

-- MC BEARER CONTEXT RELEASE

--

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

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

--

-- MC BEARER CONTEXT RELEASE COMMAND

--

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

MCBearerContextReleaseCommand ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { MCBearerContextReleaseCommandIEs } },

...

}

MCBearerContextReleaseCommandIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE mandatory }|

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

...

}

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

--

-- MC BEARER CONTEXT RELEASE COMPLETE

--

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

MCBearerContextReleaseComplete ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { MCBearerContextReleaseCompleteIEs } },

...

}

MCBearerContextReleaseCompleteIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE mandatory }|

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

...

}

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

--

-- MC BEARER CONTEXT RELEASE REQUEST

--

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

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

--

-- MC BEARER CONTEXT RELEASE REQUEST

--

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

MCBearerContextReleaseRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { { MCBearerContextReleaseRequestIEs } },

...

}

MCBearerContextReleaseRequestIEs E1AP-PROTOCOL-IES ::= {

{ ID id-GNB-CU-CP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-CP-MBS-E1AP-ID PRESENCE mandatory }|

{ ID id-GNB-CU-UP-MBS-E1AP-ID CRITICALITY reject TYPE GNB-CU-UP-MBS-E1AP-ID PRESENCE mandatory }|

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

...

}

END

-- ASN1STOP

9.4.5 Information Element Definitions

-- ASN1START

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

--

-- Information Element Definitions

--

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

E1AP-IEs {

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

ngran-access (22) modules (3) e1ap (5) version1 (1) e1ap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

id-CommonNetworkInstance,

id-SNSSAI,

id-OldQoSFlowMap-ULendmarkerexpected,

id-DRB-QoS,

id-endpoint-IP-Address-and-Port,

id-NetworkInstance,

id-QoSFlowMappingIndication,

id-TNLAssociationTransportLayerAddressgNBCUUP,

id-Cause,

id-QoSMonitoringRequest,

id-QosMonitoringReportingFrequency,

id-QoSMonitoringDisabled,

id-PDCP-StatusReportIndication,

id-RedundantCommonNetworkInstance,

id-redundant-nG-UL-UP-TNL-Information,

id-redundant-nG-DL-UP-TNL-Information,

id-RedundantQosFlowIndicator,

id-TSCTrafficCharacteristics,

id-ExtendedPacketDelayBudget,

id-CNPacketDelayBudgetDownlink,

id-CNPacketDelayBudgetUplink,

id-AdditionalPDCPduplicationInformation,

id-RedundantPDUSessionInformation,

id-RedundantPDUSessionInformation-used,

id-QoS-Mapping-Information,

id-MDTConfiguration,

id-TraceCollectionEntityURI,

id-EHC-Parameters,

id-DAPSRequestInfo,

id-EarlyForwardingCOUNTReq,

id-EarlyForwardingCOUNTInfo,

id-AlternativeQoSParaSetList,

id-MCG-OfferedGBRQoSFlowInfo,

id-Number-of-tunnels,

id-DataForwardingtoE-UTRANInformationList,

id-DataForwardingtoNG-RANQoSFlowInformationList,

id-MaxCIDEHCDL,

id-ignoreMappingRuleIndication,

id-EarlyDataForwardingIndicator,

id-QoSFlowsDRBRemapping,

id-SecurityIndicationModify,

id-DataForwardingSourceIPAddress,

id-M4ReportAmount,

id-M6ReportAmount,

id-M7ReportAmount,

id-PDUSession-PairID,

id-SurvivalTime,

id-UDC-Parameters,

id-SecurityIndication,

id-SecurityResult,

id-SDTindicatorSetup,

id-SDTindicatorMod,

id-DiscardTimerExtended,

id-MCForwardingResourceRequest,

id-MCForwardingResourceIndication,

id-MCForwardingResourceResponse,

id-MCForwardingResourceRelease,

id-MCForwardingResourceReleaseIndication,

maxnoofMBSAreaSessionIDs,

maxnoofSharedNG-UTerminations,

maxnoofMRBs,

maxnoofMBSSessionIDs,

maxnoofQoSParaSets,

maxnoofErrors,

maxnoofSliceItems,

maxnoofEUTRANQOSParameters,

maxnoofNGRANQOSParameters,

maxnoofDRBs,

maxnoofPDUSessionResource,

maxnoofQoSFlows,

maxnoofUPParameters,

maxnoofCellGroups,

maxnooftimeperiods,

maxnoofNRCGI,

maxnoofTLAs,

maxnoofGTPTLAs,

maxnoofSPLMNs,

maxnoofMDTPLMNs,

maxnoofExtSliceItems,

maxnoofDataForwardingTunneltoE-UTRAN,

maxnoofExtNRCGI,

maxnoofECGI,

maxnoofSMBRValues

FROM E1AP-Constants

Criticality,

ProcedureCode,

ProtocolIE-ID,

TriggeringMessage

FROM E1AP-CommonDataTypes

ProtocolExtensionContainer{},

ProtocolIE-SingleContainer{},

E1AP-PROTOCOL-EXTENSION,

E1AP-PROTOCOL-IES

FROM E1AP-Containers;

-- A

ActivityInformation ::= CHOICE {

dRB-Activity-List DRB-Activity-List,

pDU-Session-Resource-Activity-List PDU-Session-Resource-Activity-List,

uE-Activity UE-Activity,

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

}

ActivityInformation-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

ActivityNotificationLevel ::= ENUMERATED {

drb,

pdu-session,

ue,

...

}

AdditionalHandoverInfo ::= ENUMERATED {

discard-pdpc-SN,

...

}

AdditionalPDCPduplicationInformation ::= ENUMERATED {

three,

four,

...

}

AdditionalRRMPriorityIndex ::= BIT STRING (SIZE(32))

AveragingWindow ::= INTEGER (0..4095, ...)

AlternativeQoSParaSetList ::= SEQUENCE (SIZE(1..maxnoofQoSParaSets)) OF AlternativeQoSParaSetItem

AlternativeQoSParaSetItem ::= SEQUENCE {

alternativeQoSParameterIndex INTEGER(1..8,...),

guaranteedFlowBitRateDL BitRate OPTIONAL,

guaranteedFlowBitRateUL BitRate OPTIONAL,

packetDelayBudget PacketDelayBudget OPTIONAL,

packetErrorRate PacketErrorRate OPTIONAL,

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

...

}

AlternativeQoSParaSetItem-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- B

-- BCBearerContextToSetup

BCBearerContextToSetup ::= SEQUENCE {

snssai SNSSAI,

bcBearerContextNGU-TNLInfoat5GC BCBearerContextNGU-TNLInfoat5GC,

bcMRBToSetupList BCMRBSetupConfiguration,

requestedAction RequestedAction4AvailNGUTermination OPTIONAL,

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

...

}

BCBearerContextToSetup-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

BCBearerContextNGU-TNLInfoat5GC::= CHOICE {

locationindependent MBSNGUInformationAt5GC,

locationdependent LocationDependentMBSNGUInformationAt5GC,

choice-extension ProtocolIE-SingleContainer {{BCBearerContextNGU-TNLInfoat5GC-ExtIEs}}

}

BCBearerContextNGU-TNLInfoat5GC-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

BCMRBSetupConfiguration ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF BCMRBSetupConfiguration-Item

BCMRBSetupConfiguration-Item ::= SEQUENCE {

mrb-ID MRB-ID,

sdap-config SDAP-Configuration,

mbs-pdcp-config PDCP-Configuration,

qoS-Flow-QoS-Parameter-List QoS-Flow-QoS-Parameter-List,

qoSFlowLevelQoSParameters QoSFlowLevelQoSParameters OPTIONAL,

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

...

}

BCMRBSetupConfiguration-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- BCBearerContextToSetupResponse

BCBearerContextToSetupResponse ::= SEQUENCE {

bcBearerContextNGU-TNLInfoatNGRAN BCBearerContextNGU-TNLInfoatNGRAN OPTIONAL,

bcMRBSetupResponseList BCMRBSetupResponseList,

bcMRBFailedList BCMRBFailedList OPTIONAL,

availableBCMRBConfig BCMRBSetupConfiguration OPTIONAL,

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

...

}

BCBearerContextToSetupResponse-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

BCBearerContextNGU-TNLInfoatNGRAN::= CHOICE {

locationindependent MBSNGUInformationAtNGRAN,

locationdependent LocationDependentMBSNGUInformationAtNGRAN,

choice-extension ProtocolIE-SingleContainer {{BCBearerContextNGU-TNLInfoatNGRAN-ExtIEs}}

}

BCBearerContextNGU-TNLInfoatNGRAN-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

BCMRBSetupResponseList ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF BCMRBSetupResponseList-Item

BCMRBSetupResponseList-Item ::= SEQUENCE {

mrb-ID MRB-ID,

qosflow-setup QoS-Flow-List,

qosflow-failed QoS-Flow-Failed-List OPTIONAL,

bcBearerContextF1U-TNLInfoatCU BCBearerContextF1U-TNLInfoatCU,

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

...

}

BCMRBSetupResponseList-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

BCBearerContextF1U-TNLInfoatCU ::= CHOICE {

locationindependent MBSF1UInformationAtCU,

locationdependent LocationDependentMBSF1UInformationAtCU,

choice-extension ProtocolIE-SingleContainer {{BCBearerContextF1U-TNLInfoatCU-ExtIEs}}

}

BCBearerContextF1U-TNLInfoatCU-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

BCMRBFailedList ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF BCMRBFailedList-Item

BCMRBFailedList-Item ::= SEQUENCE {

mrb-ID MRB-ID,

cause Cause,

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

...

}

BCMRBFailedList-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- BCBearerContextToModify

BCBearerContextToModify ::= SEQUENCE {

bcBearerContextNGU-TNLInfoat5GC BCBearerContextNGU-TNLInfoat5GC OPTIONAL,

bcMRBToSetupList BCMRBSetupConfiguration OPTIONAL,

bcMRBToModifyList BCMRBModifyConfiguration OPTIONAL,

bcMRBToRemoveList BCMRBRemoveConfiguration OPTIONAL,

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

...

}

BCBearerContextToModify-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

BCMRBModifyConfiguration ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF BCMRBModifyConfiguration-Item

BCMRBModifyConfiguration-Item ::= SEQUENCE {

mrb-ID MRB-ID,

bcBearerContextF1U-TNLInfoatDU BCBearerContextF1U-TNLInfoatDU OPTIONAL,

sdap-config SDAP-Configuration OPTIONAL,

mbs-pdcp-config PDCP-Configuration OPTIONAL,

qoS-Flow-QoS-Parameter-List QoS-Flow-QoS-Parameter-List OPTIONAL,

qoSFlowLevelQoSParameters QoSFlowLevelQoSParameters OPTIONAL,

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

...

}

BCMRBModifyConfiguration-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

BCBearerContextF1U-TNLInfoatDU ::= CHOICE {

locationindependent MBSF1UInformationAtDU,

locationdependent LocationDependentMBSF1UInformationAtDU,

choice-extension ProtocolIE-SingleContainer {{BCBearerContextF1U-TNLInfoatDU-ExtIEs}}

}

BCBearerContextF1U-TNLInfoatDU-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

BCMRBRemoveConfiguration ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF MRB-ID

-- BCBearerContextToModifyResponse

BCBearerContextToModifyResponse ::= SEQUENCE {

bcBearerContextNGU-TNLInfoatNGRAN BCBearerContextNGU-TNLInfoatNGRAN OPTIONAL,

bcMRBSetupModifyResponseList BCMRBSetupModifyResponseList,

bcMRBFailedList BCMRBFailedList OPTIONAL,

availableBCMRBConfig BCMRBSetupConfiguration OPTIONAL,

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

...

}

BCBearerContextToModifyResponse-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

BCMRBSetupModifyResponseList ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF BCMRBSetupModifyResponseList-Item

BCMRBSetupModifyResponseList-Item ::= SEQUENCE {

mrb-ID MRB-ID,

qosflow-setup QoS-Flow-List OPTIONAL,

qosflow-failed QoS-Flow-Failed-List OPTIONAL,

bcBearerContextF1U-TNLInfoatCU BCBearerContextF1U-TNLInfoatCU OPTIONAL,

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

...

}

BCMRBSetupModifyResponseList-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- BCBearerContextToModifyRequired

BCBearerContextToModifyRequired ::= SEQUENCE {

bcMRBToRemoveList BCMRBRemoveConfiguration OPTIONAL,

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

...

}

BCBearerContextToModifyRequired-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- BCBearerContextToModifyConfirm

BCBearerContextToModifyConfirm ::= SEQUENCE {

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

...

}

BCBearerContextToModifyConfirm-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

BearerContextStatusChange ::= ENUMERATED {

suspend,

resume,

... ,

resumeforSDT

}

BitRate ::= INTEGER (0..4000000000000,...)

BufferSize ::= ENUMERATED {

kbyte2,

kbyte4,

kbyte8,

...

}

-- C

Cause ::= CHOICE {

radioNetwork CauseRadioNetwork,

transport CauseTransport,

protocol CauseProtocol,

misc CauseMisc,

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

}

Cause-ExtIEs E1AP-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,

unknown-or-already-allocated-gnb-cu-cp-ue-e1ap-id,

unknown-or-already-allocated-gnb-cu-up-ue-e1ap-id,

unknown-or-inconsistent-pair-of-ue-e1ap-id,

interaction-with-other-procedure,

pPDCP-Count-wrap-around,

not-supported-QCI-value,

not-supported-5QI-value,

encryption-algorithms-not-supported,

integrity-protection-algorithms-not-supported,

uP-integrity-protection-not-possible,

uP-confidentiality-protection-not-possible,

multiple-PDU-Session-ID-Instances,

unknown-PDU-Session-ID,

multiple-QoS-Flow-ID-Instances,

unknown-QoS-Flow-ID,

multiple-DRB-ID-Instances,

unknown-DRB-ID,

invalid-QoS-combination,

procedure-cancelled,

normal-release,

no-radio-resources-available,

action-desirable-for-radio-reasons,

resources-not-available-for-the-slice,

pDCP-configuration-not-supported,

...,

ue-dl-max-IP-data-rate-reason,

uP-integrity-protection-failure,

release-due-to-pre-emption,

rsn-not-available-for-the-up,

nPN-not-supported,

report-characteristic-empty,

existing-measurement-ID,

measurement-temporarily-not-available,

measurement-not-supported-for-the-object,

scg-activation-deactivation-failure,

scg-deactivation-failure-due-to-data-transmission

}

CauseTransport ::= ENUMERATED {

unspecified,

transport-resource-unavailable,

...,

unknown-TNL-address-for-IAB

}

Cell-Group-Information ::= SEQUENCE (SIZE(1.. maxnoofCellGroups)) OF Cell-Group-Information-Item

Cell-Group-Information-Item ::= SEQUENCE {

cell-Group-ID Cell-Group-ID,

uL-Configuration UL-Configuration OPTIONAL,

dL-TX-Stop DL-TX-Stop OPTIONAL,

rAT-Type RAT-Type OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Cell-Group-Information-Item-ExtIEs } } OPTIONAL,

...

}

Cell-Group-Information-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ ID id-Number-of-tunnels CRITICALITY ignore EXTENSION Number-of-tunnels PRESENCE optional},

...

}

Cell-Group-ID ::= INTEGER (0..3, ...)

CHOInitiation ::= ENUMERATED {true, ...}

Number-of-tunnels ::= INTEGER (1..4, ...)

CipheringAlgorithm ::= ENUMERATED {

nEA0,

c-128-NEA1,

c-128-NEA2,

c-128-NEA3,

...

}

CNSupport ::= ENUMERATED {

c-epc,

c-5gc,

both,

...

}

CommonNetworkInstance ::= OCTET STRING

ConfidentialityProtectionIndication ::= ENUMERATED {

required,

preferred,

not-needed,

...

}

ConfidentialityProtectionResult ::= ENUMERATED {

performed,

not-performed,

...

}

CP-TNL-Information ::= CHOICE {

endpoint-IP-Address TransportLayerAddress,

choice-extension ProtocolIE-SingleContainer {{CP-TNL-Information-ExtIEs}}

}

CP-TNL-Information-ExtIEs E1AP-PROTOCOL-IES ::= {

{ ID id-endpoint-IP-Address-and-Port CRITICALITY reject TYPE Endpoint-IP-address-and-port PRESENCE mandatory},

...

}

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 E1AP-PROTOCOL-EXTENSION ::= {

...

}

CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxnoofErrors)) OF

SEQUENCE {

iECriticality Criticality,

iE-ID ProtocolIE-ID,

typeOfError TypeOfError,

iE-Extensions ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs} } OPTIONAL,

...

}

CriticalityDiagnostics-IE-List-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- D

DAPSRequestInfo ::= SEQUENCE {

dapsIndicator ENUMERATED {daps-HO-required, ...},

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

...

}

DAPSRequestInfo-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

Data-Forwarding-Information-Request ::= SEQUENCE {

data-Forwarding-Request Data-Forwarding-Request,

qoS-Flows-Forwarded-On-Fwd-Tunnels QoS-Flow-Mapping-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Data-Forwarding-Information-Request-ExtIEs } } OPTIONAL,

...

}

Data-Forwarding-Information-Request-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

Data-Forwarding-Information ::= SEQUENCE {

uL-Data-Forwarding UP-TNL-Information OPTIONAL,

dL-Data-Forwarding UP-TNL-Information OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Data-Forwarding-Information-ExtIEs } } OPTIONAL,

...

}

Data-Forwarding-Information-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ID id-DataForwardingtoNG-RANQoSFlowInformationList CRITICALITY ignore EXTENSION DataForwardingtoNG-RANQoSFlowInformationList PRESENCE optional},

...

}

Data-Forwarding-Request ::= ENUMERATED {

uL,

dL,

both,

...

}

DataForwardingtoE-UTRANInformationList ::= SEQUENCE (SIZE(1.. maxnoofDataForwardingTunneltoE-UTRAN)) OF DataForwardingtoE-UTRANInformationListItem

DataForwardingtoE-UTRANInformationListItem ::= SEQUENCE {

data-forwarding-tunnel-information  UP-TNL-Information,

qoS-Flows-to-be-forwarded-List QoS-Flows-to-be-forwarded-List,

iE-Extensions ProtocolExtensionContainer { { DataForwardingtoE-UTRANInformationListItem-ExtIEs} } OPTIONAL,

...

}

DataForwardingtoE-UTRANInformationListItem-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

Data-Usage-per-PDU-Session-Report ::= SEQUENCE {

secondaryRATType ENUMERATED {nR, e-UTRA, ...},

pDU-session-Timed-Report-List SEQUENCE (SIZE(1..maxnooftimeperiods)) OF MRDC-Data-Usage-Report-Item,

iE-Extensions ProtocolExtensionContainer { { Data-Usage-per-PDU-Session-Report-ExtIEs} } OPTIONAL,

...

}

Data-Usage-per-PDU-Session-Report-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

Data-Usage-per-QoS-Flow-List ::= SEQUENCE (SIZE(1..maxnoofQoSFlows)) OF Data-Usage-per-QoS-Flow-Item

Data-Usage-per-QoS-Flow-Item ::= SEQUENCE {

qoS-Flow-Identifier QoS-Flow-Identifier,

secondaryRATType ENUMERATED {nR, e-UTRA, ...},

qoS-Flow-Timed-Report-List SEQUENCE (SIZE(1..maxnooftimeperiods)) OF MRDC-Data-Usage-Report-Item,

iE-Extensions ProtocolExtensionContainer { { Data-Usage-per-QoS-Flow-Item-ExtIEs} } OPTIONAL,

...

}

Data-Usage-per-QoS-Flow-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

Data-Usage-Report-List ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF Data-Usage-Report-Item

Data-Usage-Report-Item ::= SEQUENCE {

dRB-ID DRB-ID,

rAT-Type RAT-Type,

dRB-Usage-Report-List DRB-Usage-Report-List,

iE-Extensions ProtocolExtensionContainer { { Data-Usage-Report-ItemExtIEs } } OPTIONAL,

...

}

Data-Usage-Report-ItemExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DefaultDRB ::= ENUMERATED {

true,

false,

...

}

Dictionary ::= ENUMERATED {

sip-SDP,

operator,

...

}

DirectForwardingPathAvailability ::= ENUMERATED {

inter-system-direct-path-available,

...,

intra-system-direct-path-available

}

DiscardTimer ::= ENUMERATED {ms10, ms20, ms30, ms40, ms50, ms60, ms75, ms100, ms150, ms200, ms250, ms300, ms500, ms750, ms1500, infinity}

DiscardTimerExtended ::= ENUMERATED {ms0dot5, ms1, ms2, ms4, ms6, ms8,..., ms2000}

DLDiscarding ::= SEQUENCE {

dLDiscardingCountVal PDCP-Count,

iE-Extensions ProtocolExtensionContainer { { DLDiscarding-ExtIEs } } OPTIONAL

}

DLDiscarding-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DLUPTNLAddressToUpdateItem ::= SEQUENCE {

oldTNLAdress TransportLayerAddress,

newTNLAdress TransportLayerAddress,

iE-Extensions ProtocolExtensionContainer { { DLUPTNLAddressToUpdateItemExtIEs } } OPTIONAL,

...

}

DLUPTNLAddressToUpdateItemExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DL-TX-Stop ::= ENUMERATED {

stop,

resume,

...

}

DRB-Activity ::= ENUMERATED {

active,

not-active,

...

}

DRB-Activity-List ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF DRB-Activity-Item

DRB-Activity-Item ::= SEQUENCE {

dRB-ID DRB-ID,

dRB-Activity DRB-Activity,

iE-Extensions ProtocolExtensionContainer { { DRB-Activity-ItemExtIEs } } OPTIONAL,

...

}

DRB-Activity-ItemExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Confirm-Modified-List-EUTRAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-Confirm-Modified-Item-EUTRAN

DRB-Confirm-Modified-Item-EUTRAN ::= SEQUENCE {

dRB-ID DRB-ID,

cell-Group-Information Cell-Group-Information OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRB-Confirm-Modified-Item-EUTRAN-ExtIEs } } OPTIONAL,

...

}

DRB-Confirm-Modified-Item-EUTRAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Confirm-Modified-List-NG-RAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-Confirm-Modified-Item-NG-RAN

DRB-Confirm-Modified-Item-NG-RAN ::= SEQUENCE {

dRB-ID DRB-ID,

cell-Group-Information Cell-Group-Information OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRB-Confirm-Modified-Item-NG-RAN-ExtIEs } } OPTIONAL,

...

}

DRB-Confirm-Modified-Item-NG-RAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Failed-List-EUTRAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-Failed-Item-EUTRAN

DRB-Failed-Item-EUTRAN ::= SEQUENCE {

dRB-ID DRB-ID,

cause Cause,

iE-Extensions ProtocolExtensionContainer { { DRB-Failed-Item-EUTRAN-ExtIEs } } OPTIONAL,

...

}

DRB-Failed-Item-EUTRAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Failed-Mod-List-EUTRAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-Failed-Mod-Item-EUTRAN

DRB-Failed-Mod-Item-EUTRAN ::= SEQUENCE {

dRB-ID DRB-ID,

cause Cause,

iE-Extensions ProtocolExtensionContainer { { DRB-Failed-Mod-Item-EUTRAN-ExtIEs } } OPTIONAL,

...

}

DRB-Failed-Mod-Item-EUTRAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Failed-List-NG-RAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-Failed-Item-NG-RAN

DRB-Failed-Item-NG-RAN ::= SEQUENCE {

dRB-ID DRB-ID,

cause Cause,

iE-Extensions ProtocolExtensionContainer { { DRB-Failed-Item-NG-RAN-ExtIEs } } OPTIONAL,

...

}

DRB-Failed-Item-NG-RAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Failed-Mod-List-NG-RAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-Failed-Mod-Item-NG-RAN

DRB-Failed-Mod-Item-NG-RAN ::= SEQUENCE {

dRB-ID DRB-ID,

cause Cause,

iE-Extensions ProtocolExtensionContainer { { DRB-Failed-Mod-Item-NG-RAN-ExtIEs } } OPTIONAL,

...

}

DRB-Failed-Mod-Item-NG-RAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Failed-To-Modify-List-EUTRAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-Failed-To-Modify-Item-EUTRAN

DRB-Failed-To-Modify-Item-EUTRAN ::= SEQUENCE {

dRB-ID DRB-ID,

cause Cause,

iE-Extensions ProtocolExtensionContainer { { DRB-Failed-To-Modify-Item-EUTRAN-ExtIEs } } OPTIONAL,

...

}

DRB-Failed-To-Modify-Item-EUTRAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Failed-To-Modify-List-NG-RAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-Failed-To-Modify-Item-NG-RAN

DRB-Failed-To-Modify-Item-NG-RAN ::= SEQUENCE {

dRB-ID DRB-ID,

cause Cause,

iE-Extensions ProtocolExtensionContainer { { DRB-Failed-To-Modify-Item-NG-RAN-ExtIEs } } OPTIONAL,

...

}

DRB-Failed-To-Modify-Item-NG-RAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-ID ::= INTEGER (1..32, ...)

DRB-Measurement-Results-Information-List ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-Measurement-Results-Information-Item

DRB-Measurement-Results-Information-Item ::= SEQUENCE {

dRB-ID DRB-ID,

uL-D1-Result INTEGER (0..10000, ...) OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRB-Measurement-Results-Information-Item-ExtIEs } } OPTIONAL,

...

}

DRB-Measurement-Results-Information-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Modified-List-EUTRAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-Modified-Item-EUTRAN

DRB-Modified-Item-EUTRAN ::= SEQUENCE {

dRB-ID DRB-ID,

s1-DL-UP-TNL-Information UP-TNL-Information OPTIONAL,

pDCP-SN-Status-Information PDCP-SN-Status-Information OPTIONAL,

uL-UP-Transport-Parameters UP-Parameters OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRB-Modified-Item-EUTRAN-ExtIEs } } OPTIONAL,

...

}

DRB-Modified-Item-EUTRAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Modified-List-NG-RAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-Modified-Item-NG-RAN

DRB-Modified-Item-NG-RAN ::= SEQUENCE {

dRB-ID DRB-ID,

uL-UP-Transport-Parameters UP-Parameters OPTIONAL,

pDCP-SN-Status-Information PDCP-SN-Status-Information OPTIONAL,

flow-Setup-List QoS-Flow-List OPTIONAL,

flow-Failed-List QoS-Flow-Failed-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRB-Modified-Item-NG-RAN-ExtIEs } } OPTIONAL,

...

}

DRB-Modified-Item-NG-RAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ID id-EarlyForwardingCOUNTInfo CRITICALITY reject EXTENSION EarlyForwardingCOUNTInfo PRESENCE optional}|

{ID id-OldQoSFlowMap-ULendmarkerexpected CRITICALITY ignore EXTENSION QoS-Flow-List PRESENCE optional},

...

}

DRB-Removed-Item ::= SEQUENCE {

dRB-ID DRB-ID,

dRB-Released-In-Session ENUMERATED {released-in-session, not-released-in-session, ...} OPTIONAL,

dRB-Accumulated-Session-Time OCTET STRING (SIZE(5)) OPTIONAL,

qoS-Flow-Removed-List SEQUENCE (SIZE(1.. maxnoofQoSFlows)) OF QoS-Flow-Removed-Item OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRB-Removed-Item-ExtIEs } } OPTIONAL,

...

}

DRB-Removed-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Required-To-Modify-List-EUTRAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-Required-To-Modify-Item-EUTRAN

DRB-Required-To-Modify-Item-EUTRAN ::= SEQUENCE {

dRB-ID DRB-ID,

s1-DL-UP-TNL-Information UP-TNL-Information OPTIONAL,

gNB-CU-UP-CellGroupRelatedConfiguration GNB-CU-UP-CellGroupRelatedConfiguration OPTIONAL,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRB-Required-To-Modify-Item-EUTRAN-ExtIEs } } OPTIONAL,

...

}

DRB-Required-To-Modify-Item-EUTRAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Required-To-Modify-List-NG-RAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-Required-To-Modify-Item-NG-RAN

DRB-Required-To-Modify-Item-NG-RAN ::= SEQUENCE {

dRB-ID DRB-ID,

gNB-CU-UP-CellGroupRelatedConfiguration GNB-CU-UP-CellGroupRelatedConfiguration OPTIONAL,

flow-To-Remove QoS-Flow-List OPTIONAL,

cause Cause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRB-Required-To-Modify-Item-NG-RAN-ExtIEs } } OPTIONAL,

...

}

DRB-Required-To-Modify-Item-NG-RAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Setup-List-EUTRAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-Setup-Item-EUTRAN

DRB-Setup-Item-EUTRAN ::= SEQUENCE {

dRB-ID DRB-ID,

s1-DL-UP-TNL-Information UP-TNL-Information,

data-Forwarding-Information-Response Data-Forwarding-Information OPTIONAL,

uL-UP-Transport-Parameters UP-Parameters,

s1-DL-UP-Unchanged ENUMERATED {true, ...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRB-Setup-Item-EUTRAN-ExtIEs } } OPTIONAL,

...

}

DRB-Setup-Item-EUTRAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ID id-DataForwardingSourceIPAddress CRITICALITY ignore EXTENSION TransportLayerAddress PRESENCE optional}|

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

...

}

DRB-Setup-Mod-List-EUTRAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-Setup-Mod-Item-EUTRAN

DRB-Setup-Mod-Item-EUTRAN ::= SEQUENCE {

dRB-ID DRB-ID,

s1-DL-UP-TNL-Information UP-TNL-Information,

data-Forwarding-Information-Response Data-Forwarding-Information OPTIONAL,

uL-UP-Transport-Parameters UP-Parameters,

iE-Extensions ProtocolExtensionContainer { { DRB-Setup-Mod-Item-EUTRAN-ExtIEs } } OPTIONAL,

...

}

DRB-Setup-Mod-Item-EUTRAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

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

{ID id-DataForwardingSourceIPAddress CRITICALITY ignore EXTENSION TransportLayerAddress PRESENCE optional},

...

}

DRB-Setup-List-NG-RAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-Setup-Item-NG-RAN

DRB-Setup-Item-NG-RAN ::= SEQUENCE {

dRB-ID DRB-ID,

dRB-data-Forwarding-Information-Response Data-Forwarding-Information OPTIONAL,

uL-UP-Transport-Parameters UP-Parameters,

flow-Setup-List QoS-Flow-List,

flow-Failed-List QoS-Flow-Failed-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRB-Setup-Item-NG-RAN-ExtIEs } } OPTIONAL,

...

}

DRB-Setup-Item-NG-RAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Setup-Mod-List-NG-RAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-Setup-Mod-Item-NG-RAN

DRB-Setup-Mod-Item-NG-RAN ::= SEQUENCE {

dRB-ID DRB-ID,

dRB-data-Forwarding-Information-Response Data-Forwarding-Information OPTIONAL,

uL-UP-Transport-Parameters UP-Parameters,

flow-Setup-List QoS-Flow-List,

flow-Failed-List QoS-Flow-Failed-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRB-Setup-Mod-Item-NG-RAN-ExtIEs } } OPTIONAL,

...

}

DRB-Setup-Mod-Item-NG-RAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Status-Item ::= SEQUENCE {

dRB-ID DRB-ID,

pDCP-DL-Count PDCP-Count OPTIONAL,

pDCP-UL-Count PDCP-Count OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRB-Status-ItemExtIEs } } OPTIONAL,

...

}

DRB-Status-ItemExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRBs-Subject-To-Counter-Check-List-EUTRAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRBs-Subject-To-Counter-Check-Item-EUTRAN

DRBs-Subject-To-Counter-Check-Item-EUTRAN ::= SEQUENCE {

dRB-ID DRB-ID,

pDCP-UL-Count PDCP-Count,

pDCP-DL-Count PDCP-Count,

iE-Extensions ProtocolExtensionContainer { { DRBs-Subject-To-Counter-Check-Item-EUTRAN-ExtIEs } } OPTIONAL,

...

}

DRBs-Subject-To-Counter-Check-Item-EUTRAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRBs-Subject-To-Counter-Check-List-NG-RAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRBs-Subject-To-Counter-Check-Item-NG-RAN

DRBs-Subject-To-Counter-Check-Item-NG-RAN ::= SEQUENCE {

pDU-Session-ID PDU-Session-ID,

dRB-ID DRB-ID,

pDCP-UL-Count PDCP-Count,

pDCP-DL-Count PDCP-Count,

iE-Extensions ProtocolExtensionContainer { { DRBs-Subject-To-Counter-Check-Item-NG-RAN-ExtIEs } } OPTIONAL,

...

}

DRBs-Subject-To-Counter-Check-Item-NG-RAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRBs-Subject-To-Early-Forwarding-List ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRBs-Subject-To-Early-Forwarding-Item

DRBs-Subject-To-Early-Forwarding-Item ::= SEQUENCE {

dRB-ID DRB-ID,

dLCountValue PDCP-Count,

iE-Extensions ProtocolExtensionContainer { { DRBs-Subject-To-Early-Forwarding-Item-ExtIEs } } OPTIONAL,

...

}

DRBs-Subject-To-Early-Forwarding-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-To-Modify-List-EUTRAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-To-Modify-Item-EUTRAN

DRB-To-Modify-Item-EUTRAN ::= SEQUENCE {

dRB-ID DRB-ID,

pDCP-Configuration PDCP-Configuration OPTIONAL,

eUTRAN-QoS EUTRAN-QoS OPTIONAL,

s1-UL-UP-TNL-Information UP-TNL-Information OPTIONAL,

data-Forwarding-Information Data-Forwarding-Information OPTIONAL,

pDCP-SN-Status-Request PDCP-SN-Status-Request OPTIONAL,

pDCP-SN-Status-Information PDCP-SN-Status-Information OPTIONAL,

dL-UP-Parameters UP-Parameters OPTIONAL,

cell-Group-To-Add Cell-Group-Information OPTIONAL,

cell-Group-To-Modify Cell-Group-Information OPTIONAL,

cell-Group-To-Remove Cell-Group-Information OPTIONAL,

dRB-Inactivity-Timer Inactivity-Timer OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRB-To-Modify-Item-EUTRAN-ExtIEs } } OPTIONAL,

...

}

DRB-To-Modify-Item-EUTRAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-To-Modify-List-NG-RAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-To-Modify-Item-NG-RAN

DRB-To-Modify-Item-NG-RAN ::= SEQUENCE {

dRB-ID DRB-ID,

sDAP-Configuration SDAP-Configuration OPTIONAL,

pDCP-Configuration PDCP-Configuration OPTIONAL,

dRB-Data-Forwarding-Information Data-Forwarding-Information OPTIONAL,

pDCP-SN-Status-Request PDCP-SN-Status-Request OPTIONAL,

pdcp-SN-Status-Information PDCP-SN-Status-Information OPTIONAL,

dL-UP-Parameters UP-Parameters OPTIONAL,

cell-Group-To-Add Cell-Group-Information OPTIONAL,

cell-Group-To-Modify Cell-Group-Information OPTIONAL,

cell-Group-To-Remove Cell-Group-Information OPTIONAL,

flow-Mapping-Information QoS-Flow-QoS-Parameter-List OPTIONAL,

dRB-Inactivity-Timer Inactivity-Timer OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRB-To-Modify-Item-NG-RAN-ExtIEs } } OPTIONAL,

...

}

DRB-To-Modify-Item-NG-RAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ID id-OldQoSFlowMap-ULendmarkerexpected CRITICALITY reject EXTENSION QoS-Flow-List PRESENCE optional}|

{ID id-DRB-QoS CRITICALITY ignore EXTENSION QoSFlowLevelQoSParameters PRESENCE optional}|

{ID id-EarlyForwardingCOUNTReq CRITICALITY reject EXTENSION EarlyForwardingCOUNTReq PRESENCE optional}|

{ID id-EarlyForwardingCOUNTInfo CRITICALITY reject EXTENSION EarlyForwardingCOUNTInfo PRESENCE optional}|

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

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

{ID id-SDTindicatorMod CRITICALITY reject EXTENSION SDTindicatorMod PRESENCE optional},

...

}

DRB-To-Remove-List-EUTRAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-To-Remove-Item-EUTRAN

DRB-To-Remove-Item-EUTRAN ::= SEQUENCE {

dRB-ID DRB-ID,

iE-Extensions ProtocolExtensionContainer { { DRB-To-Remove-Item-EUTRAN-ExtIEs } } OPTIONAL,

...

}

DRB-To-Remove-Item-EUTRAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Required-To-Remove-List-EUTRAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-Required-To-Remove-Item-EUTRAN

DRB-Required-To-Remove-Item-EUTRAN ::= SEQUENCE {

dRB-ID DRB-ID,

cause Cause,

iE-Extensions ProtocolExtensionContainer { { DRB-Required-To-Remove-Item-EUTRAN-ExtIEs } } OPTIONAL,

...

}

DRB-Required-To-Remove-Item-EUTRAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-To-Remove-List-NG-RAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-To-Remove-Item-NG-RAN

DRB-To-Remove-Item-NG-RAN ::= SEQUENCE {

dRB-ID DRB-ID,

iE-Extensions ProtocolExtensionContainer { { DRB-To-Remove-Item-NG-RAN-ExtIEs } } OPTIONAL,

...

}

DRB-To-Remove-Item-NG-RAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Required-To-Remove-List-NG-RAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-Required-To-Remove-Item-NG-RAN

DRB-Required-To-Remove-Item-NG-RAN ::= SEQUENCE {

dRB-ID DRB-ID,

cause Cause,

iE-Extensions ProtocolExtensionContainer { { DRB-Required-To-Remove-Item-NG-RAN-ExtIEs } } OPTIONAL,

...

}

DRB-Required-To-Remove-Item-NG-RAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRB-To-Setup-List-EUTRAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-To-Setup-Item-EUTRAN

DRB-To-Setup-Item-EUTRAN ::= SEQUENCE {

dRB-ID DRB-ID,

pDCP-Configuration PDCP-Configuration,

eUTRAN-QoS EUTRAN-QoS,

s1-UL-UP-TNL-Information UP-TNL-Information,

data-Forwarding-Information-Request Data-Forwarding-Information-Request OPTIONAL,

cell-Group-Information Cell-Group-Information,

dL-UP-Parameters UP-Parameters OPTIONAL,

dRB-Inactivity-Timer Inactivity-Timer OPTIONAL,

existing-Allocated-S1-DL-UP-TNL-Info UP-TNL-Information OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRB-To-Setup-Item-EUTRAN-ExtIEs } } OPTIONAL,

...

}

DRB-To-Setup-Item-EUTRAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ID id-DataForwardingSourceIPAddress CRITICALITY ignore EXTENSION TransportLayerAddress PRESENCE optional}|

{ID id-SecurityIndication CRITICALITY reject EXTENSION SecurityIndication PRESENCE optional},

...

}

DRB-To-Setup-Mod-List-EUTRAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-To-Setup-Mod-Item-EUTRAN

DRB-To-Setup-Mod-Item-EUTRAN ::= SEQUENCE {

dRB-ID DRB-ID,

pDCP-Configuration PDCP-Configuration,

eUTRAN-QoS EUTRAN-QoS,

s1-UL-UP-TNL-Information UP-TNL-Information,

data-Forwarding-Information-Request Data-Forwarding-Information-Request OPTIONAL,

cell-Group-Information Cell-Group-Information,

dL-UP-Parameters UP-Parameters OPTIONAL,

dRB-Inactivity-Timer Inactivity-Timer OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRB-To-Setup-Mod-Item-EUTRAN-ExtIEs } } OPTIONAL,

...

}

DRB-To-Setup-Mod-Item-EUTRAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ID id-SecurityIndication CRITICALITY reject EXTENSION SecurityIndication PRESENCE optional}|

{ID id-DataForwardingSourceIPAddress CRITICALITY ignore EXTENSION TransportLayerAddress PRESENCE optional},

...

}

DRB-To-Setup-List-NG-RAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-To-Setup-Item-NG-RAN

DRB-To-Setup-Item-NG-RAN ::= SEQUENCE {

dRB-ID DRB-ID,

sDAP-Configuration SDAP-Configuration,

pDCP-Configuration PDCP-Configuration,

cell-Group-Information Cell-Group-Information,

qos-flow-Information-To-Be-Setup QoS-Flow-QoS-Parameter-List,

dRB-Data-Forwarding-Information-Request Data-Forwarding-Information-Request OPTIONAL,

dRB-Inactivity-Timer Inactivity-Timer OPTIONAL,

pDCP-SN-Status-Information PDCP-SN-Status-Information OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRB-To-Setup-Item-NG-RAN-ExtIEs } } OPTIONAL,

...

}

DRB-To-Setup-Item-NG-RAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ID id-DRB-QoS CRITICALITY ignore EXTENSION QoSFlowLevelQoSParameters PRESENCE optional}|

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

{ID id-ignoreMappingRuleIndication CRITICALITY reject EXTENSION IgnoreMappingRuleIndication PRESENCE optional}|

{ID id-QoSFlowsDRBRemapping CRITICALITY reject EXTENSION QoS-Flows-DRB-Remapping PRESENCE optional}|

{ID id-SDTindicatorSetup CRITICALITY reject EXTENSION SDTindicatorSetup PRESENCE optional},

...

}

DRB-To-Setup-Mod-List-NG-RAN ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-To-Setup-Mod-Item-NG-RAN

DRB-To-Setup-Mod-Item-NG-RAN ::= SEQUENCE {

dRB-ID DRB-ID,

sDAP-Configuration SDAP-Configuration,

pDCP-Configuration PDCP-Configuration,

cell-Group-Information Cell-Group-Information,

flow-Mapping-Information QoS-Flow-QoS-Parameter-List,

dRB-Data-Forwarding-Information-Request Data-Forwarding-Information-Request OPTIONAL,

dRB-Inactivity-Timer Inactivity-Timer OPTIONAL,

pDCP-SN-Status-Information PDCP-SN-Status-Information OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { DRB-To-Setup-Mod-Item-NG-RAN-ExtIEs } } OPTIONAL,

...

}

DRB-To-Setup-Mod-Item-NG-RAN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ID id-DRB-QoS CRITICALITY ignore EXTENSION QoSFlowLevelQoSParameters PRESENCE optional}|

{ID id-ignoreMappingRuleIndication CRITICALITY reject EXTENSION IgnoreMappingRuleIndication PRESENCE optional}|

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

{ID id-SDTindicatorSetup CRITICALITY reject EXTENSION SDTindicatorSetup PRESENCE optional},

...

}

DRB-Usage-Report-List ::= SEQUENCE (SIZE(1..maxnooftimeperiods)) OF DRB-Usage-Report-Item

DRB-Usage-Report-Item ::= SEQUENCE {

startTimeStamp OCTET STRING (SIZE(4)),

endTimeStamp OCTET STRING (SIZE(4)),

usageCountUL INTEGER (0..18446744073709551615),

usageCountDL INTEGER (0..18446744073709551615),

iE-Extensions ProtocolExtensionContainer { { DRB-Usage-Report-Item-ExtIEs} } OPTIONAL,

...

}

DRB-Usage-Report-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

Duplication-Activation ::= ENUMERATED {

active,

inactive,

...

}

Dynamic5QIDescriptor ::= SEQUENCE {

qoSPriorityLevel QoSPriorityLevel,

packetDelayBudget PacketDelayBudget,

packetErrorRate PacketErrorRate,

fiveQI INTEGER (0..255, ...) OPTIONAL,

delayCritical ENUMERATED {delay-critical, non-delay-critical} OPTIONAL,

averagingWindow AveragingWindow OPTIONAL,

maxDataBurstVolume MaxDataBurstVolume OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Dynamic5QIDescriptor-ExtIEs } } OPTIONAL

}

Dynamic5QIDescriptor-ExtIEs E1AP-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 },

...

}

DataDiscardRequired ::= ENUMERATED {

required,

...

}

-- E

EarlyDataForwardingIndicator ::= ENUMERATED {stop, ...}

EarlyForwardingCOUNTInfo ::= CHOICE {

firstDLCount FirstDLCount,

dLDiscardingCount DLDiscarding,

choice-Extension ProtocolIE-SingleContainer { { EarlyForwardingCOUNTInfo-ExtIEs} }

}

EarlyForwardingCOUNTInfo-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

EarlyForwardingCOUNTReq ::= ENUMERATED { first-dl-count, dl-discarding, ...}

EHC-Common-Parameters ::= SEQUENCE {

ehc-CID-Length ENUMERATED { bits7, bits15, ...},

iE-Extensions ProtocolExtensionContainer { { EHC-Common-Parameters-ExtIEs } } OPTIONAL

}

EHC-Common-Parameters-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

EHC-Downlink-Parameters ::= SEQUENCE {

drb-ContinueEHC-DL ENUMERATED {true, ..., false},

iE-Extensions ProtocolExtensionContainer { { EHC-Downlink-Parameters-ExtIEs } } OPTIONAL

}

EHC-Downlink-Parameters-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

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

...

}

EHC-Uplink-Parameters ::= SEQUENCE {

drb-ContinueEHC-UL ENUMERATED {true, ... , false},

iE-Extensions ProtocolExtensionContainer { { EHC-Uplink-Parameters-ExtIEs } } OPTIONAL

}

EHC-Uplink-Parameters-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

EHC-Parameters ::= SEQUENCE {

ehc-Common EHC-Common-Parameters,

ehc-Downlink EHC-Downlink-Parameters OPTIONAL,

ehc-Uplink EHC-Uplink-Parameters OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { EHC-Parameters-ExtIEs } } OPTIONAL

}

EHC-Parameters-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

EncryptionKey ::= OCTET STRING

Endpoint-IP-address-and-port::= SEQUENCE {

endpoint-IP-Address TransportLayerAddress,

portNumber PortNumber,

iE-Extensions ProtocolExtensionContainer { { Endpoint-IP-address-and-port-ExtIEs} } OPTIONAL

}

Endpoint-IP-address-and-port-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

EUTRANAllocationAndRetentionPriority ::= SEQUENCE {

priorityLevel PriorityLevel,

pre-emptionCapability Pre-emptionCapability,

pre-emptionVulnerability Pre-emptionVulnerability,

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

...

}

ExtendedPacketDelayBudget ::= INTEGER (1..65535, ...)

EUTRANAllocationAndRetentionPriority-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

E-UTRAN-Cell-Identity ::= BIT STRING (SIZE(28))

ECGI ::= SEQUENCE {

pLMN-Identity PLMN-Identity,

eUTRAN-Cell-Identity E-UTRAN-Cell-Identity,

iE-Extensions ProtocolExtensionContainer { { ECGI-ExtIEs } } OPTIONAL

}

ECGI-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

ECGI-Support-List ::= SEQUENCE (SIZE(1.. maxnoofECGI)) OF ECGI-Support-Item

ECGI-Support-Item ::= SEQUENCE {

eCGI ECGI,

iE-Extensions ProtocolExtensionContainer { { ECGI-Support-Item-ExtIEs } } OPTIONAL

}

ECGI-Support-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

EUTRAN-QoS-Support-List ::= SEQUENCE (SIZE(1.. maxnoofEUTRANQOSParameters)) OF EUTRAN-QoS-Support-Item

EUTRAN-QoS-Support-Item ::= SEQUENCE {

eUTRAN-QoS EUTRAN-QoS,

iE-Extensions ProtocolExtensionContainer { { EUTRAN-QoS-Support-Item-ExtIEs } } OPTIONAL

}

EUTRAN-QoS-Support-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

EUTRAN-QoS ::= SEQUENCE {

qCI QCI,

eUTRANallocationAndRetentionPriority EUTRANAllocationAndRetentionPriority,

gbrQosInformation GBR-QosInformation OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { EUTRAN-QoS-ExtIEs } } OPTIONAL,

...

}

EUTRAN-QoS-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

ExtendedSliceSupportList ::= SEQUENCE (SIZE(1.. maxnoofExtSliceItems)) OF Slice-Support-Item

-- F

FirstDLCount ::= SEQUENCE {

firstDLCountVal PDCP-Count,

iE-Extensions ProtocolExtensionContainer { { FirstDLCount-ExtIEs } } OPTIONAL

}

FirstDLCount-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- G

GlobalMBSSessionID ::= SEQUENCE {

tmgi OCTET STRING (SIZE(6)),

nid NID OPTIONAL,

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

...

}

GlobalMBSSessionID-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

GNB-CU-CP-Name ::= PrintableString(SIZE(1..150,...))

Extended-GNB-CU-CP-Name ::= SEQUENCE {

gNB-CU-CP-NameVisibleString GNB-CU-CP-NameVisibleString OPTIONAL,

gNB-CU-CP-NameUTF8String GNB-CU-CP-NameUTF8String OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Extended-GNB-CU-CP-Name-ExtIEs } } OPTIONAL,

...

}

Extended-GNB-CU-CP-Name-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

GNB-CU-CP-MBS-E1AP-ID ::= INTEGER (0..16777215)

GNB-CU-CP-NameVisibleString ::= VisibleString(SIZE(1..150,...))

GNB-CU-CP-NameUTF8String ::= UTF8String(SIZE(1..150,...))

GNB-CU-CP-UE-E1AP-ID ::= INTEGER (0..4294967295)

GNB-CU-UP-Capacity ::= INTEGER (0..255)

GNB-CU-UP-CellGroupRelatedConfiguration ::= SEQUENCE (SIZE(1.. maxnoofUPParameters)) OF GNB-CU-UP-CellGroupRelatedConfiguration-Item

GNB-CU-UP-CellGroupRelatedConfiguration-Item ::= SEQUENCE {

cell-Group-ID Cell-Group-ID,

uP-TNL-Information UP-TNL-Information,

uL-Configuration UL-Configuration OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {GNB-CU-UP-CellGroupRelatedConfiguration-Item-ExtIEs } } OPTIONAL

}

GNB-CU-UP-CellGroupRelatedConfiguration-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

GNB-CU-UP-ID ::= INTEGER (0..68719476735)

GNB-CU-UP-MBS-Support-Info ::= SEQUENCE {

mbs-Support-Info-ToAdd-List MBS-Support-Info-ToAdd-List OPTIONAL,

mbs-Support-Info-ToRemove-List MBS-Support-Info-ToRemove-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { GNB-CU-UP-MBS-Support-Info-ExtIEs } } OPTIONAL,

...

}

GNB-CU-UP-MBS-Support-Info-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

GNB-CU-UP-Name ::= PrintableString(SIZE(1..150,...))

Extended-GNB-CU-UP-Name ::= SEQUENCE {

gNB-CU-UP-NameVisibleString GNB-CU-UP-NameVisibleString OPTIONAL,

gNB-CU-UP-NameUTF8String GNB-CU-UP-NameUTF8String OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Extended-GNB-CU-UP-Name-ExtIEs } } OPTIONAL,

...

}

Extended-GNB-CU-UP-Name-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

GNB-CU-UP-MBS-E1AP-ID ::= INTEGER (0..65535)

GNB-CU-UP-NameVisibleString ::= VisibleString(SIZE(1..150,...))

GNB-CU-UP-NameUTF8String ::= UTF8String(SIZE(1..150,...))

GNB-CU-UP-UE-E1AP-ID ::= INTEGER (0..4294967295)

GNB-CU-CP-TNLA-Setup-Item::= SEQUENCE {

tNLAssociationTransportLayerAddress CP-TNL-Information,

iE-Extensions ProtocolExtensionContainer { { GNB-CU-CP-TNLA-Setup-Item-ExtIEs} } OPTIONAL,

...

}

GNB-CU-CP-TNLA-Setup-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

GNB-CU-CP-TNLA-Failed-To-Setup-Item ::= SEQUENCE {

tNLAssociationTransportLayerAddress CP-TNL-Information,

cause Cause,

iE-Extensions ProtocolExtensionContainer { { GNB-CU-CP-TNLA-Failed-To-Setup-Item-ExtIEs} } OPTIONAL

}

GNB-CU-CP-TNLA-Failed-To-Setup-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

GNB-CU-CP-TNLA-To-Add-Item ::= SEQUENCE {

tNLAssociationTransportLayerAddress CP-TNL-Information,

tNLAssociationUsage TNLAssociationUsage,

iE-Extensions ProtocolExtensionContainer { { GNB-CU-CP-TNLA-To-Add-Item-ExtIEs} } OPTIONAL

}

GNB-CU-CP-TNLA-To-Add-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

GNB-CU-CP-TNLA-To-Remove-Item::= SEQUENCE {

tNLAssociationTransportLayerAddress CP-TNL-Information,

iE-Extensions ProtocolExtensionContainer { { GNB-CU-CP-TNLA-To-Remove-Item-ExtIEs} } OPTIONAL

}

GNB-CU-CP-TNLA-To-Remove-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ID id-TNLAssociationTransportLayerAddressgNBCUUP CRITICALITY reject EXTENSION CP-TNL-Information PRESENCE optional},

...

}

GNB-CU-CP-TNLA-To-Update-Item::= SEQUENCE {

tNLAssociationTransportLayerAddress CP-TNL-Information,

tNLAssociationUsage TNLAssociationUsage OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { GNB-CU-CP-TNLA-To-Update-Item-ExtIEs} } OPTIONAL

}

GNB-CU-CP-TNLA-To-Update-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

GNB-CU-UP-TNLA-To-Remove-Item::= SEQUENCE {

tNLAssociationTransportLayerAddress CP-TNL-Information,

tNLAssociationTransportLayerAddressgNBCUCP CP-TNL-Information OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { GNB-CU-UP-TNLA-To-Remove-Item-ExtIEs} } OPTIONAL

}

GNB-CU-UP-TNLA-To-Remove-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

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 E1AP-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 E1AP-PROTOCOL-EXTENSION ::= {

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

...

}

GTP-TEID ::= OCTET STRING (SIZE (4))

GTPTLAs ::= SEQUENCE (SIZE(1.. maxnoofGTPTLAs)) OF GTPTLA-Item

GTPTLA-Item ::= SEQUENCE {

gTPTransportLayerAddresses TransportLayerAddress,

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

...

}

GTPTLA-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

GTPTunnel ::= SEQUENCE {

transportLayerAddress TransportLayerAddress,

gTP-TEID GTP-TEID,

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

...

}

GTPTunnel-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

GNB-CU-UP-OverloadInformation ::= ENUMERATED {overloaded, not-overloaded}

GNB-DU-ID ::= INTEGER (0..68719476735)

-- H

HFN ::= INTEGER (0..4294967295)

HW-CapacityIndicator ::= SEQUENCE {

offeredThroughput INTEGER (1..16777216, ...),

availableThroughput INTEGER (0..100, ...),

iE-Extensions ProtocolExtensionContainer { { HW-CapacityIndicator-ExtIEs } },

...

}

HW-CapacityIndicator-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- I

IgnoreMappingRuleIndication ::= ENUMERATED {

true,

...

}

IntegrityProtectionIndication ::= ENUMERATED {

required,

preferred,

not-needed,

...

}

IntegrityProtectionAlgorithm ::= ENUMERATED {

nIA0,

i-128-NIA1,

i-128-NIA2,

i-128-NIA3,

...

}

IntegrityProtectionKey ::= OCTET STRING

IntegrityProtectionResult ::= ENUMERATED {

performed,

not-performed,

...

}

Inactivity-Timer ::= INTEGER (1..7200, ...)

InterfacesToTrace ::= BIT STRING (SIZE(8))

ImmediateMDT ::= SEQUENCE {

measurementsToActivate MeasurementsToActivate,

measurementFour M4Configuration OPTIONAL,

measurementSix M6Configuration OPTIONAL,

measurementSeven M7Configuration OPTIONAL,

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

...

}

ImmediateMDT-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

IAB-Donor-CU-UPPSKInfo-Item ::= SEQUENCE {

iAB-donor-CU-UPPSK IAB-donor-CU-UPPSK,

iAB-donor-CU-UPIPAddress TransportLayerAddress,

iAB-DUIPAddress TransportLayerAddress,

iE-Extensions ProtocolExtensionContainer { { IAB-donor-CU-UPPSKInfoItemExtIEs } } OPTIONAL,

...

}

IAB-donor-CU-UPPSKInfoItemExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

IAB-donor-CU-UPPSK ::= OCTET STRING

-- J

-- K

-- L

Links-to-log ::= ENUMERATED {

uplink,

downlink,

both-uplink-and-downlink,

...

}

LocationDependentMBSNGUInformationAt5GC ::= SEQUENCE (SIZE(1..maxnoofMBSAreaSessionIDs)) OF LocationDependentMBSNGUInformationAt5GC-Item

LocationDependentMBSNGUInformationAt5GC-Item ::= SEQUENCE {

mbsAreaSession-ID MBSAreaSessionID,

mbsNGUInformationAt5GC MBSNGUInformationAt5GC,

iE-Extensions ProtocolExtensionContainer { { LocationDependentMBSNGUInformationAt5GC-Item-ExtIEs } } OPTIONAL,

...

}

LocationDependentMBSNGUInformationAt5GC-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

LocationDependentMBSF1UInformationAtCU ::= SEQUENCE (SIZE(1..maxnoofMBSAreaSessionIDs)) OF LocationDependentMBSF1UInformationAtCU-Item

LocationDependentMBSF1UInformationAtCU-Item ::= SEQUENCE {

mbsAreaSession-ID MBSAreaSessionID,

mbs-f1u-info-at-CU UP-TNL-Information,

iE-Extensions ProtocolExtensionContainer { { LocationDependentMBSF1UInformationAtCU-Item-ExtIEs } } OPTIONAL,

...

}

LocationDependentMBSF1UInformationAtCU-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

LocationDependentMBSF1UInformationAtDU ::= SEQUENCE (SIZE(1..maxnoofMBSAreaSessionIDs)) OF LocationDependentMBSF1UInformationAtDU-Item

LocationDependentMBSF1UInformationAtDU-Item ::= SEQUENCE {

mbsAreaSession-ID MBSAreaSessionID,

mbs-f1u-info-at-DU UP-TNL-Information,

iE-Extensions ProtocolExtensionContainer { { LocationDependentMBSF1UInformationAtDU-Item-ExtIEs } } OPTIONAL,

...

}

LocationDependentMBSF1UInformationAtDU-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

LocationDependentMBSNGUInformationAtNGRAN ::= SEQUENCE (SIZE(1..maxnoofMBSAreaSessionIDs)) OF LocationDependentMBSNGUInformationAtNGRAN-Item

LocationDependentMBSNGUInformationAtNGRAN-Item ::= SEQUENCE {

mbsAreaSession-ID MBSAreaSessionID,

mbsNGUInformationAtNGRAN MBSNGUInformationAtNGRAN,

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

...

}

LocationDependentMBSNGUInformationAtNGRAN-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- M

MaxDataBurstVolume ::= INTEGER (0..4095, ..., 4096.. 2000000)

MaximumIPdatarate ::= SEQUENCE {

maxIPrate MaxIPrate,

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

...

}

MaximumIPdatarate-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MaxIPrate ::= ENUMERATED {

bitrate64kbs,

max-UErate,

...

}

MaxPacketLossRate ::= INTEGER (0..1000, ...)

MaxCIDEHCDL ::= INTEGER (1..32767, ...)

MBSAreaSessionID ::= INTEGER (0..65535, ...)

MBSF1UInformationAtCU ::= SEQUENCE {

mbs-f1u-info-at-CU UP-TNL-Information,

iE-Extensions ProtocolExtensionContainer { { MBSF1UInformationAtCU-ExtIEs } } OPTIONAL,

...

}

MBSF1UInformationAtCU-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MBSF1UInformationAtDU ::= SEQUENCE {

mbs-f1u-info-at-DU UP-TNL-Information,

iE-Extensions ProtocolExtensionContainer { { MBSF1UInformationAtDU-ExtIEs } } OPTIONAL,

...

}

MBSF1UInformationAtDU-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MBSNGUInformationAt5GC ::= CHOICE {

multicast MBSNGUInformationAt5GC-Multicast,

unicast UP-TNL-Information,

choice-extension ProtocolIE-SingleContainer {{MBSNGUInformationAt5GC-ExtIEs}}

}

MBSNGUInformationAt5GC-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

MBSNGUInformationAt5GC-Multicast ::= SEQUENCE {

ipmcAddress TransportLayerAddress,

ipsourceAddress TransportLayerAddress,

gtpDLTEID GTP-TEID,

iE-Extensions ProtocolExtensionContainer { {MBSNGUInformationAt5GC-Multicast-ExtIEs} } OPTIONAL,

...

}

MBSNGUInformationAt5GC-Multicast-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MBSNGUInformationAtNGRAN ::= CHOICE {

unicast UP-TNL-Information,

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

}

MBSNGUInformationAtNGRAN-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

MBSSessionAssociatedInformation ::= SEQUENCE {

mbsSessionAssociatedInformationList MBSSessionAssociatedInformationList,

mbsSessionForwardingAddress TransportLayerAddress,

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

...

}

MBSSessionAssociatedInformation-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MBSSessionAssociatedInformationList ::= SEQUENCE (SIZE(1.. maxnoofQoSFlows)) OF MBSSessionAssociatedInformation-Item

MBSSessionAssociatedInformation-Item ::= SEQUENCE {

mbs-QoS-Flow-Identifier QoS-Flow-Identifier,

associated-unicast-QoS-Flow-Identifier QoS-Flow-Identifier,

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

...

}

MBSSessionAssociatedInformation-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MBS-Support-Info-ToAdd-List ::= SEQUENCE (SIZE(1..maxnoofMBSSessionIDs)) OF MBS-Support-Info-ToAdd-Item

MBS-Support-Info-ToAdd-Item ::= SEQUENCE {

globalMBSSessionID GlobalMBSSessionID,

iE-Extensions ProtocolExtensionContainer { { MBS-Support-Info-ToAdd-Item-ExtIEs} } OPTIONAL,

...

}

MBS-Support-Info-ToAdd-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MBS-Support-Info-ToRemove-List ::= SEQUENCE (SIZE(1..maxnoofMBSSessionIDs)) OF MBS-Support-Info-ToRemove-Item

MBS-Support-Info-ToRemove-Item ::= SEQUENCE {

globalMBSSessionID GlobalMBSSessionID,

iE-Extensions ProtocolExtensionContainer { { MBS-Support-Info-ToRemove-Item-ExtIEs} } OPTIONAL,

...

}

MBS-Support-Info-ToRemove-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- MCBearerContextToSetup

MCBearerContextToSetup ::= SEQUENCE {

snssai SNSSAI,

mcMRBToSetupList MCMRBSetupConfiguration,

requestedAction RequestedAction4AvailNGUTermination OPTIONAL,

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

...

}

MCBearerContextToSetup-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MCMRBSetupConfiguration ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF MCMRBSetupConfiguration-Item

MCMRBSetupConfiguration-Item ::= SEQUENCE {

mrb-ID MRB-ID,

sdap-config SDAP-Configuration,

mbs-pdcp-config PDCP-Configuration,

qoS-Flow-QoS-Parameter-List QoS-Flow-QoS-Parameter-List,

qoSFlowLevelQoSParameters QoSFlowLevelQoSParameters OPTIONAL,

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

...

}

MCMRBSetupConfiguration-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- MCBearerContextToSetupResponse

MCBearerContextToSetupResponse ::= SEQUENCE {

mcBearerContextNGU-TNLInfoatNGRAN MCBearerContextNGU-TNLInfoatNGRAN OPTIONAL,

mcMRBSetupResponseList MCMRBSetupResponseList,

mcMRBFailedList MCMRBFailedList OPTIONAL,

availableMCMRBConfig MCMRBSetupConfiguration OPTIONAL,

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

...

}

MCBearerContextToSetupResponse-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MCBearerContextNGU-TNLInfoatNGRAN::= CHOICE {

locationindependent MBSNGUInformationAtNGRAN,

locationdependent LocationDependentMBSNGUInformationAtNGRAN,

choice-extension ProtocolIE-SingleContainer {{MCBearerContextNGU-TNLInfoatNGRAN-ExtIEs}}

}

MCBearerContextNGU-TNLInfoatNGRAN-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

MCMRBSetupResponseList ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF MCMRBSetupResponseList-Item

MCMRBSetupResponseList-Item ::= SEQUENCE {

mrb-ID MRB-ID,

qosflow-setup QoS-Flow-List,

qosflow-failed QoS-Flow-Failed-List OPTIONAL,

mBSInitialHFNRefSN MBS-Initial-HFN-Ref-SN OPTIONAL,

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

...

}

MCMRBSetupResponseList-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MBS-Initial-HFN-Ref-SN ::= BIT STRING (SIZE (32))

MCMRBFailedList ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF MCMRBFailedList-Item

MCMRBFailedList-Item ::= SEQUENCE {

mrb-ID MRB-ID,

cause Cause,

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

...

}

MCMRBFailedList-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- MCBearerContextToModify

MCBearerContextToModify ::= SEQUENCE {

mcBearerContextNGUTNLInfoat5GC MCBearerContextNGUTNLInfoat5GC OPTIONAL,

mcBearerContextNGUTnlInfoatNGRANRequest MCBearerContextNGUTnlInfoatNGRANRequest OPTIONAL,

mbsMulticastF1UContextDescriptor MBSMulticastF1UContextDescriptor OPTIONAL,

-- This IE shall be present if either the *MC MRB To Setup or Modify List* IE or the *MC MRB To Remove List* IE or both IEs are included.

mcMRBToSetupModifyList MCMRBSetupModifyConfiguration OPTIONAL,

mcMRBToRemoveList MCMRBRemoveConfiguration OPTIONAL,

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

...

}

MCBearerContextToModify-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

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

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

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

...

}

MCBearerContextNGUTNLInfoat5GC ::= SEQUENCE {

mbsNGUInformationAt5GC MBSNGUInformationAt5GC,

mbsAreaSession-ID MBSAreaSessionID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {MCBearerContextNGUTNLInfoat5GC-ExtIEs} } OPTIONAL,

...

}

MCBearerContextNGUTNLInfoat5GC-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MCBearerContextNGUTnlInfoatNGRANRequest ::= SEQUENCE {

ngRANNGUTNLRequested ENUMERATED {requested, ...},

mbsAreaSession-ID MBSAreaSessionID OPTIONAL,

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

...

}

MCBearerContextNGUTnlInfoatNGRANRequest-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MCMRBSetupModifyConfiguration ::= SEQUENCE {

mrb-ID MRB-ID,

f1uTNLatDU MCBearerContextF1UTNLInfoatDU OPTIONAL,

sdap-config SDAP-Configuration OPTIONAL,

mbs-pdcp-config PDCP-Configuration OPTIONAL,

qoS-Flow-QoS-Parameter-List QoS-Flow-QoS-Parameter-List OPTIONAL,

mrbQoS QoSFlowLevelQoSParameters OPTIONAL,

mbsInitialHFNRefSNReq MBS-Initial-HFN-Ref-SN-Req OPTIONAL,

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

...

}

MCMRBSetupModifyConfiguration-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MCBearerContextF1UTNLInfoatDU ::= SEQUENCE {

mbsF1UInfoatDU UP-TNL-Information,

mbsMulticastF1UContextDescriptor MBSMulticastF1UContextDescriptor,

iE-Extensions ProtocolExtensionContainer { {MCBearerContextF1UTNLInfoatDU-ExtIEs} } OPTIONAL,

...

}

MCBearerContextF1UTNLInfoatDU-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MBSMulticastF1UContextDescriptor ::= CHOICE {

du NULL,

mbsAreaSession MBSAreaSessionID,

cell MCDUCellReference,

ptp-retransmission MBSPTPUEReference,

ptp-only-MRB MBSPTPUEReference,

choice-extension ProtocolIE-SingleContainer {{MBSMulticastF1UContextDescriptor-ExtIEs}}

}

MBSMulticastF1UContextDescriptor-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

MCDUCellReference ::= SEQUENCE {

du-CellIndex INTEGER (1..512),

nr-CGI NR-CGI,

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

...

}

MCDUCellReference-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MBSPTPUEReference::= SEQUENCE {

ueReferenceID INTEGER (0..65535, ...),

du-CellIndex INTEGER (1..512),

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

...

}

MBSPTPUEReference-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MCMRBRemoveConfiguration ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF MRB-ID

MBS-Initial-HFN-Ref-SN-Req ::= ENUMERATED {true, ... }

-- MCBearerContextToModifyResponse

MCBearerContextToModifyResponse ::= SEQUENCE {

mcBearerContextNGU-TNLInfoatNGRANModifyResponse MCBearerContextNGU-TNLInfoatNGRANModifyResponse OPTIONAL,

mbsMulticastF1UContextDescriptor MBSMulticastF1UContextDescriptor OPTIONAL,

-- This IE shall be present if either the *MC MRB Setup or Modify Response List* IE or the *MC MRB Failed List*IE or both IEs are included.

mcMRBModifySetupResponseList MCMRBSetupModifyResponseList OPTIONAL,

mcMRBFailedList MCMRBFailedList OPTIONAL,

availableMCMRBConfig MCMRBSetupConfiguration OPTIONAL,

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

...

}

MCBearerContextToModifyResponse-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

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

...

}

MCBearerContextNGU-TNLInfoatNGRANModifyResponse ::= SEQUENCE {

mbs-NGU-InfoatNGRAN MBSNGUInformationAtNGRAN,

mbsAreaSession MBSAreaSessionID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {MCBearerContextNGU-TNLInfoatNGRANModifyResponse-ExtIEs} } OPTIONAL,

...

}

MCBearerContextNGU-TNLInfoatNGRANModifyResponse-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MCMRBSetupModifyResponseList ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF MCMRBSetupModifyResponseList-Item

MCMRBSetupModifyResponseList-Item ::= SEQUENCE {

mrb-ID MRB-ID,

qosflow-setup QoS-Flow-List OPTIONAL,

qosflow-failed QoS-Flow-Failed-List OPTIONAL,

mcBearerContextF1UTNLInfoatCU UP-TNL-Information OPTIONAL,

mBSInitialHFNRefSN MBS-Initial-HFN-Ref-SN OPTIONAL,

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

...

}

MCMRBSetupModifyResponseList-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- MCBearerContextToModifyRequired

MCBearerContextToModifyRequired ::= SEQUENCE {

mbsMulticastF1UContextDescriptor MBSMulticastF1UContextDescriptor OPTIONAL,

-- This IE shall be present if either the *MC MRB To Remove List Required* IE is included.

mcMRBToRemoveRequiredList MCMRBRemoveConfiguration OPTIONAL,

mcMRBToModifyRequiredList MCMRBModifyRequiredConfiguration OPTIONAL,

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

...

}

MCBearerContextToModifyRequired-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

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

...

}

MCMRBModifyRequiredConfiguration ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF MCMRBModifyRequiredConfiguration-Item

MCMRBModifyRequiredConfiguration-Item ::= SEQUENCE {

mrb-ID MRB-ID,

mBSInitialHFNRefSN MBS-Initial-HFN-Ref-SN OPTIONAL,

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

...

}

MCMRBModifyRequiredConfiguration-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- MCBearerContextToModifyConfirm

MCBearerContextToModifyConfirm ::= SEQUENCE {

mbsMulticastF1UContextDescriptor MBSMulticastF1UContextDescriptor OPTIONAL,

mcMRBModifyConfirmList MCMRBModifyConfirmList OPTIONAL,

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

...

}

MCMRBModifyConfirmList ::= SEQUENCE (SIZE(1..maxnoofMRBs)) OF MCMRBModifyConfirmList-Item

MCMRBModifyConfirmList-Item ::= SEQUENCE {

mrb-ID MRB-ID,

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

...

}

MCMRBModifyConfirmList-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MCBearerContextToModifyConfirm-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- MCForwardingResourceRequest

MCForwardingResourceRequest ::= SEQUENCE {

mcForwardingResourceID MCForwardingResourceID,

mbsAreaSession-ID MBSAreaSessionID OPTIONAL,

mrbForwardingResourceRequestList MRBForwardingResourceRequestList OPTIONAL,

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

...

}

MCForwardingResourceRequest-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MRBForwardingResourceRequestList ::= SEQUENCE (SIZE(1.. maxnoofMRBs)) OF MRBForwardingResourceRequest-Item

MRBForwardingResourceRequest-Item ::= SEQUENCE {

mrb-ID MRB-ID,

mrbProgressRequestType MRB-ProgressInformationType OPTIONAL,

mrbForwardingAddressRequest ENUMERATED {request, ...} OPTIONAL,

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

...

}

MRBForwardingResourceRequest-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- MCForwardingResourceIndication

MCForwardingResourceIndication ::= SEQUENCE {

mcForwardingResourceID MCForwardingResourceID,

mrbForwardingResourceIndicationList MRBForwardingResourceIndicationList OPTIONAL,

mbsSessionAssociatedInformation MBSSessionAssociatedInformation OPTIONAL,

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

...

}

MCForwardingResourceIndication-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MRBForwardingResourceIndicationList ::= SEQUENCE (SIZE(1.. maxnoofMRBs)) OF MRBForwardingResourceIndication-Item

MRBForwardingResourceIndication-Item ::= SEQUENCE {

mrb-ID MRB-ID,

mrb-ProgressInformation MRB-ProgressInformation OPTIONAL,

mrbForwardingAddress UP-TNL-Information OPTIONAL,

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

...

}

MRBForwardingResourceIndication-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- MCForwardingResourceResponse

MCForwardingResourceResponse ::= SEQUENCE {

mcForwardingResourceID MCForwardingResourceID,

mrbForwardingResourceResponseList MRBForwardingResourceResponseList OPTIONAL,

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

...

}

MCForwardingResourceResponse-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MRBForwardingResourceResponseList ::= SEQUENCE (SIZE(1.. maxnoofMRBs)) OF MRBForwardingResourceResponse-Item

MRBForwardingResourceResponse-Item ::= SEQUENCE {

mrb-ID MRB-ID,

mrb-ProgressInformation MRB-ProgressInformation OPTIONAL,

mrbForwardingAddress UP-TNL-Information OPTIONAL,

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

...

}

MRBForwardingResourceResponse-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- MCForwardingResourceRelease

MCForwardingResourceRelease ::= SEQUENCE {

mcForwardingResourceID MCForwardingResourceID,

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

...

}

MCForwardingResourceRelease-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- MCForwardingResourceReleaseIndication

MCForwardingResourceReleaseIndication ::= SEQUENCE {

mcForwardingResourceID MCForwardingResourceID,

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

...

}

MCForwardingResourceReleaseIndication-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MCForwardingResourceID ::= OCTET STRING (SIZE(2))

MDTPollutedMeasurementIndicator ::= ENUMERATED {

iDC,

no-IDC,

...

}

MRB-ID ::= INTEGER (1..512, ...)

MRB-ProgressInformation ::= SEQUENCE {

mrb-ProgressInformationSNs MRB-ProgressInformationSNs,

mrb-ProgressInformationType MRB-ProgressInformationType,

iE-Extensions ProtocolExtensionContainer { {MRB-ProgressInformation-ExtIEs} } OPTIONAL,

...

}

MRB-ProgressInformation-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MRB-ProgressInformationSNs ::= CHOICE {

pdcp-SN12 INTEGER (0..4095),

pdcp-SN18 INTEGER (0..262143),

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

}

MRB-ProgressInformationSNs-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

MRB-ProgressInformationType ::= ENUMERATED {oldest-available, last-delivered, ...}

MRDC-Data-Usage-Report-Item ::= SEQUENCE {

startTimeStamp OCTET STRING (SIZE(4)),

endTimeStamp OCTET STRING (SIZE(4)),

usageCountUL INTEGER (0..18446744073709551615),

usageCountDL INTEGER (0..18446744073709551615),

iE-Extensions ProtocolExtensionContainer { { MRDC-Data-Usage-Report-Item-ExtIEs} } OPTIONAL,

...

}

MRDC-Data-Usage-Report-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MRDC-Usage-Information ::= SEQUENCE {

data-Usage-per-PDU-Session-Report Data-Usage-per-PDU-Session-Report OPTIONAL,

data-Usage-per-QoS-Flow-List Data-Usage-per-QoS-Flow-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { MRDC-Usage-Information-ExtIEs} } OPTIONAL,

...

}

MRDC-Usage-Information-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

M4Configuration ::= SEQUENCE {

m4period M4period,

m4-links-to-log Links-to-log,

iE-Extensions ProtocolExtensionContainer { { M4Configuration-ExtIEs} } OPTIONAL,

...

}

M4Configuration-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ ID id-M4ReportAmount CRITICALITY ignore EXTENSION M4ReportAmount PRESENCE optional },

...

}

M4period ::= ENUMERATED {ms1024, ms2048, ms5120, ms10240, min1, ... }

M4ReportAmount ::= ENUMERATED { r1, r2, r4, r8, r16, r32, r64, infinity, ... }

M6Configuration ::= SEQUENCE {

m6report-Interval M6report-Interval,

m6-links-to-log Links-to-log,

iE-Extensions ProtocolExtensionContainer { { M6Configuration-ExtIEs} } OPTIONAL,

...

}

M6Configuration-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ ID id-M6ReportAmount CRITICALITY ignore EXTENSION M6ReportAmount PRESENCE optional },

...

}

M6ReportAmount ::= ENUMERATED { r1, r2, r4, r8, r16, r32, r64, infinity, ... }

M6report-Interval ::= ENUMERATED { ms120, ms240, ms480, ms640, ms1024, ms2048, ms5120, ms10240, ms20480 ,ms40960, min1, min6, min12, min30, ... }

M7Configuration ::= SEQUENCE {

m7period M7period,

m7-links-to-log Links-to-log,

iE-Extensions ProtocolExtensionContainer { { M7Configuration-ExtIEs} } OPTIONAL,

...

}

M7Configuration-ExtIEs E1AP-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, ... }

MDT-Activation ::= ENUMERATED {

immediate-MDT-only,

immediate-MDT-and-Trace,

...

}

MDT-Configuration ::= SEQUENCE {

mdt-Activation MDT-Activation,

mDTMode MDTMode,

iE-Extensions ProtocolExtensionContainer { { MDT-Configuration-ExtIEs} } OPTIONAL,

...

}

MDT-Configuration-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

MDTMode ::= CHOICE {

immediateMDT ImmediateMDT,

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

}

MDTMode-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

MeasurementsToActivate ::= BIT STRING (SIZE (8))

MDTPLMNList ::= SEQUENCE (SIZE(1..maxnoofMDTPLMNs)) OF PLMN-Identity

MDTPLMNModificationList ::= SEQUENCE (SIZE(0..maxnoofMDTPLMNs)) OF PLMN-Identity

-- N

NetworkInstance ::= INTEGER (1..256, ...)

New-UL-TNL-Information-Required::= ENUMERATED {

required,

...

}

NGRANAllocationAndRetentionPriority ::= SEQUENCE {

priorityLevel PriorityLevel,

pre-emptionCapability Pre-emptionCapability,

pre-emptionVulnerability Pre-emptionVulnerability,

iE-Extensions ProtocolExtensionContainer { {NGRANAllocationAndRetentionPriority-ExtIEs} } OPTIONAL

}

NGRANAllocationAndRetentionPriority-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

NG-RAN-QoS-Support-List ::= SEQUENCE (SIZE(1.. maxnoofNGRANQOSParameters)) OF NG-RAN-QoS-Support-Item

NG-RAN-QoS-Support-Item ::= SEQUENCE {

non-Dynamic5QIDescriptor Non-Dynamic5QIDescriptor,

iE-Extensions ProtocolExtensionContainer { { NG-RAN-QoS-Support-Item-ExtIEs } } OPTIONAL

}

NG-RAN-QoS-Support-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

NID ::= BIT STRING (SIZE (44))

Non-Dynamic5QIDescriptor ::= SEQUENCE {

fiveQI INTEGER (0..255, ...),

qoSPriorityLevel QoSPriorityLevel OPTIONAL,

averagingWindow AveragingWindow OPTIONAL,

maxDataBurstVolume MaxDataBurstVolume OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Non-Dynamic5QIDescriptor-ExtIEs } } OPTIONAL

}

Non-Dynamic5QIDescriptor-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ ID id-CNPacketDelayBudgetDownlink CRITICALITY ignore EXTENSION ExtendedPacketDelayBudget PRESENCE optional }|

{ ID id-CNPacketDelayBudgetUplink CRITICALITY ignore EXTENSION ExtendedPacketDelayBudget PRESENCE optional },

...

}

NPNSupportInfo ::= CHOICE {

sNPN NPNSupportInfo-SNPN,

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

}

NPNSupportInfo-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

NPNSupportInfo-SNPN ::= SEQUENCE {

nID NID,

iE-Extensions ProtocolExtensionContainer { { NPNSupportInfo-SNPN-ExtIEs } } OPTIONAL

}

NPNSupportInfo-SNPN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

NPNContextInfo ::= CHOICE {

sNPN NPNContextInfo-SNPN,

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

}

NPNContextInfo-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

NPNContextInfo-SNPN ::= SEQUENCE {

nID NID,

iE-Extensions ProtocolExtensionContainer { {NPNContextInfo-SNPN-ExtIEs } } OPTIONAL

}

NPNContextInfo-SNPN-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

NR-Cell-Identity ::= BIT STRING (SIZE(36))

NR-CGI ::= SEQUENCE {

pLMN-Identity PLMN-Identity,

nR-Cell-Identity NR-Cell-Identity,

iE-Extensions ProtocolExtensionContainer { { NR-CGI-ExtIEs } } OPTIONAL

}

NR-CGI-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

NR-CGI-Support-List ::= SEQUENCE (SIZE(1.. maxnoofNRCGI)) OF NR-CGI-Support-Item

NR-CGI-Support-Item ::= SEQUENCE {

nR-CGI NR-CGI,

iE-Extensions ProtocolExtensionContainer { { NR-CGI-Support-Item-ExtIEs } } OPTIONAL

}

NR-CGI-Support-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

Extended-NR-CGI-Support-List ::= SEQUENCE (SIZE(1.. maxnoofExtNRCGI)) OF Extended-NR-CGI-Support-Item

Extended-NR-CGI-Support-Item ::= SEQUENCE {

nR-CGI NR-CGI,

iE-Extensions ProtocolExtensionContainer { { Extended-NR-CGI-Support-Item-ExtIEs } } OPTIONAL

}

Extended-NR-CGI-Support-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- O

OutOfOrderDelivery ::= ENUMERATED {

true,

...

}

-- P

PacketDelayBudget ::= INTEGER (0..1023, ...)

PacketErrorRate ::= SEQUENCE {

pER-Scalar PER-Scalar,

pER-Exponent PER-Exponent,

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

...

}

PacketErrorRate-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

PER-Scalar ::= INTEGER (0..9, ...)

PER-Exponent ::= INTEGER (0..9, ...)

PDCP-Configuration ::= SEQUENCE {

pDCP-SN-Size-UL PDCP-SN-Size,

pDCP-SN-Size-DL PDCP-SN-Size,

rLC-Mode RLC-Mode,

rOHC-Parameters ROHC-Parameters OPTIONAL,

t-ReorderingTimer T-ReorderingTimer OPTIONAL,

discardTimer DiscardTimer OPTIONAL,

uLDataSplitThreshold ULDataSplitThreshold OPTIONAL,

pDCP-Duplication PDCP-Duplication OPTIONAL,

pDCP-Reestablishment PDCP-Reestablishment OPTIONAL,

pDCP-DataRecovery PDCP-DataRecovery OPTIONAL,

duplication-Activation Duplication-Activation OPTIONAL,

outOfOrderDelivery OutOfOrderDelivery OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PDCP-Configuration-ExtIEs } } OPTIONAL,

...

}

PDCP-Configuration-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ID id-PDCP-StatusReportIndication CRITICALITY ignore EXTENSION PDCP-StatusReportIndication PRESENCE optional}|

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

{ ID id-EHC-Parameters CRITICALITY ignore EXTENSION EHC-Parameters PRESENCE optional}|

{ ID id-UDC-Parameters CRITICALITY ignore EXTENSION UDC-Parameters PRESENCE optional}|

{ ID id-DiscardTimerExtended CRITICALITY reject EXTENSION DiscardTimerExtended PRESENCE optional},

...

}

PDCP-Count ::= SEQUENCE {

pDCP-SN PDCP-SN,

hFN HFN,

iE-Extensions ProtocolExtensionContainer { { PDCP-Count-ExtIEs } } OPTIONAL,

...

}

PDCP-Count-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

PDCP-SN-Status-Request ::= ENUMERATED {

requested,

...

}

PDCP-DataRecovery ::= ENUMERATED {

true,

...

}

PDCP-Duplication ::= ENUMERATED {

true,

...

}

PDCP-Reestablishment ::= ENUMERATED {

true,

...

}

PDU-Session-Resource-Data-Usage-List ::= SEQUENCE (SIZE(1.. maxnoofPDUSessionResource)) OF PDU-Session-Resource-Data-Usage-Item

PDU-Session-Resource-Data-Usage-Item ::= SEQUENCE {

pDU-Session-ID PDU-Session-ID,

mRDC-Usage-Information MRDC-Usage-Information,

iE-Extensions ProtocolExtensionContainer { { PDU-Session-Resource-Data-Usage-Item-ExtIEs } } OPTIONAL,

...

}

PDU-Session-Resource-Data-Usage-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

PDCP-SN ::= INTEGER (0..262143)

PDCP-SN-Size ::= ENUMERATED {

s-12,

s-18,

...,

s-7,

s-15,

s-16

}

PDCP-SN-Status-Information ::= SEQUENCE {

pdcpStatusTransfer-UL DRBBStatusTransfer,

pdcpStatusTransfer-DL PDCP-Count,

iE-Extension ProtocolExtensionContainer { { PDCP-SN-Status-Information-ExtIEs} } OPTIONAL,

...

}

PDCP-StatusReportIndication ::= ENUMERATED {

downlink,

uplink,

both,

...

}

PDCP-SN-Status-Information-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

DRBBStatusTransfer ::= SEQUENCE {

receiveStatusofPDCPSDU BIT STRING (SIZE(1..131072)) OPTIONAL,

countValue PDCP-Count,

iE-Extension ProtocolExtensionContainer { {DRBBStatusTransfer-ExtIEs} } OPTIONAL,

...

}

DRBBStatusTransfer-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

PDU-Session-ID ::= INTEGER (0..255)

PDUSession-PairID ::= INTEGER (0..255, ...)

PDU-Session-Resource-Activity ::= ENUMERATED {

active,

not-active,

...

}

PDU-Session-Resource-Activity-List ::= SEQUENCE (SIZE(1.. maxnoofPDUSessionResource)) OF PDU-Session-Resource-Activity-Item

PDU-Session-Resource-Activity-Item ::= SEQUENCE {

pDU-Session-ID PDU-Session-ID,

pDU-Session-Resource-Activity PDU-Session-Resource-Activity,

iE-Extensions ProtocolExtensionContainer { { PDU-Session-Resource-Activity-ItemExtIEs } } OPTIONAL,

...

}

PDU-Session-Resource-Activity-ItemExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

PDU-Session-Resource-Confirm-Modified-List ::= SEQUENCE (SIZE(1.. maxnoofPDUSessionResource)) OF PDU-Session-Resource-Confirm-Modified-Item

PDU-Session-Resource-Confirm-Modified-Item ::= SEQUENCE {

pDU-Session-ID PDU-Session-ID,

dRB-Confirm-Modified-List-NG-RAN DRB-Confirm-Modified-List-NG-RAN OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PDU-Session-Resource-Confirm-Modified-Item-ExtIEs } } OPTIONAL,

...

}

PDU-Session-Resource-Confirm-Modified-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

PDU-Session-Resource-Failed-List ::= SEQUENCE (SIZE(1.. maxnoofPDUSessionResource)) OF PDU-Session-Resource-Failed-Item

PDU-Session-Resource-Failed-Item ::= SEQUENCE {

pDU-Session-ID PDU-Session-ID,

cause Cause,

iE-Extensions ProtocolExtensionContainer { { PDU-Session-Resource-Failed-Item-ExtIEs } } OPTIONAL,

...

}

PDU-Session-Resource-Failed-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

PDU-Session-Resource-Failed-Mod-List ::= SEQUENCE (SIZE(1.. maxnoofPDUSessionResource)) OF PDU-Session-Resource-Failed-Mod-Item

PDU-Session-Resource-Failed-Mod-Item ::= SEQUENCE {

pDU-Session-ID PDU-Session-ID,

cause Cause,

iE-Extensions ProtocolExtensionContainer { { PDU-Session-Resource-Failed-Mod-Item-ExtIEs } } OPTIONAL,

...

}

PDU-Session-Resource-Failed-Mod-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

PDU-Session-Resource-Failed-To-Modify-List ::= SEQUENCE (SIZE(1.. maxnoofPDUSessionResource)) OF PDU-Session-Resource-Failed-To-Modify-Item

PDU-Session-Resource-Failed-To-Modify-Item ::= SEQUENCE {

pDU-Session-ID PDU-Session-ID,

cause Cause,

iE-Extensions ProtocolExtensionContainer { { PDU-Session-Resource-Failed-To-Modify-Item-ExtIEs } } OPTIONAL,

...

}

PDU-Session-Resource-Failed-To-Modify-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

PDU-Session-Resource-Modified-List ::= SEQUENCE (SIZE(1.. maxnoofPDUSessionResource)) OF PDU-Session-Resource-Modified-Item

PDU-Session-Resource-Modified-Item ::= SEQUENCE {

pDU-Session-ID PDU-Session-ID,

nG-DL-UP-TNL-Information UP-TNL-Information OPTIONAL,

securityResult SecurityResult OPTIONAL,

pDU-Session-Data-Forwarding-Information-Response Data-Forwarding-Information OPTIONAL,

dRB-Setup-List-NG-RAN DRB-Setup-List-NG-RAN OPTIONAL,

dRB-Failed-List-NG-RAN DRB-Failed-List-NG-RAN OPTIONAL,

dRB-Modified-List-NG-RAN DRB-Modified-List-NG-RAN OPTIONAL,

dRB-Failed-To-Modify-List-NG-RAN DRB-Failed-To-Modify-List-NG-RAN OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PDU-Session-Resource-Modified-Item-ExtIEs } } OPTIONAL,

...

}

PDU-Session-Resource-Modified-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ ID id-redundant-nG-DL-UP-TNL-Information CRITICALITY ignore EXTENSION UP-TNL-Information PRESENCE optional },

...

}

PDU-Session-Resource-Required-To-Modify-List ::= SEQUENCE (SIZE(1.. maxnoofPDUSessionResource)) OF PDU-Session-Resource-Required-To-Modify-Item

PDU-Session-Resource-Required-To-Modify-Item ::= SEQUENCE {

pDU-Session-ID PDU-Session-ID,

nG-DL-UP-TNL-Information UP-TNL-Information OPTIONAL,

dRB-Required-To-Modify-List-NG-RAN DRB-Required-To-Modify-List-NG-RAN OPTIONAL,

dRB-Required-To-Remove-List-NG-RAN DRB-Required-To-Remove-List-NG-RAN OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PDU-Session-Resource-Required-To-Modify-Item-ExtIEs } } OPTIONAL,

...

}

PDU-Session-Resource-Required-To-Modify-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ ID id-redundant-nG-DL-UP-TNL-Information CRITICALITY ignore EXTENSION UP-TNL-Information PRESENCE optional },

...

}

PDU-Session-Resource-Setup-List ::= SEQUENCE (SIZE(1.. maxnoofPDUSessionResource)) OF PDU-Session-Resource-Setup-Item

PDU-Session-Resource-Setup-Item ::= SEQUENCE {

pDU-Session-ID PDU-Session-ID,

securityResult SecurityResult OPTIONAL,

nG-DL-UP-TNL-Information UP-TNL-Information,

pDU-Session-Data-Forwarding-Information-Response Data-Forwarding-Information OPTIONAL,

nG-DL-UP-Unchanged ENUMERATED {true, ...} OPTIONAL,

dRB-Setup-List-NG-RAN DRB-Setup-List-NG-RAN,

dRB-Failed-List-NG-RAN DRB-Failed-List-NG-RAN OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PDU-Session-Resource-Setup-Item-ExtIEs } } OPTIONAL,

...

}

PDU-Session-Resource-Setup-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ ID id-redundant-nG-DL-UP-TNL-Information CRITICALITY ignore EXTENSION UP-TNL-Information PRESENCE optional }|

{ ID id-RedundantPDUSessionInformation-used CRITICALITY ignore EXTENSION RedundantPDUSessionInformation PRESENCE optional },

...

}

PDU-Session-Resource-Setup-Mod-List ::= SEQUENCE (SIZE(1.. maxnoofPDUSessionResource)) OF PDU-Session-Resource-Setup-Mod-Item

PDU-Session-Resource-Setup-Mod-Item ::= SEQUENCE {

pDU-Session-ID PDU-Session-ID,

securityResult SecurityResult OPTIONAL,

nG-DL-UP-TNL-Information UP-TNL-Information,

pDU-Session-Data-Forwarding-Information-Response Data-Forwarding-Information OPTIONAL,

dRB-Setup-Mod-List-NG-RAN DRB-Setup-Mod-List-NG-RAN,

dRB-Failed-Mod-List-NG-RAN DRB-Failed-Mod-List-NG-RAN OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PDU-Session-Resource-Setup-Mod-Item-ExtIEs } } OPTIONAL,

...

}

PDU-Session-Resource-Setup-Mod-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ ID id-redundant-nG-DL-UP-TNL-Information CRITICALITY ignore EXTENSION UP-TNL-Information PRESENCE optional },

...

}

PDU-Session-Resource-To-Modify-List ::= SEQUENCE (SIZE(1.. maxnoofPDUSessionResource)) OF PDU-Session-Resource-To-Modify-Item

PDU-Session-Resource-To-Modify-Item ::= SEQUENCE {

pDU-Session-ID PDU-Session-ID,

securityIndication SecurityIndication OPTIONAL,

pDU-Session-Resource-DL-AMBR BitRate OPTIONAL,

nG-UL-UP-TNL-Information UP-TNL-Information OPTIONAL,

pDU-Session-Data-Forwarding-Information-Request Data-Forwarding-Information-Request OPTIONAL,

pDU-Session-Data-Forwarding-Information Data-Forwarding-Information OPTIONAL,

pDU-Session-Inactivity-Timer Inactivity-Timer OPTIONAL,

networkInstance NetworkInstance OPTIONAL,

dRB-To-Setup-List-NG-RAN DRB-To-Setup-List-NG-RAN OPTIONAL,

dRB-To-Modify-List-NG-RAN DRB-To-Modify-List-NG-RAN OPTIONAL,

dRB-To-Remove-List-NG-RAN DRB-To-Remove-List-NG-RAN OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PDU-Session-Resource-To-Modify-Item-ExtIEs } } OPTIONAL,

...

}

PDU-Session-Resource-To-Modify-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ID id-SNSSAI CRITICALITY reject EXTENSION SNSSAI PRESENCE optional}|

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

{ID id-redundant-nG-UL-UP-TNL-Information CRITICALITY ignore EXTENSION UP-TNL-Information PRESENCE optional }|

{ID id-RedundantCommonNetworkInstance CRITICALITY ignore EXTENSION CommonNetworkInstance PRESENCE optional }|

{ID id-DataForwardingtoE-UTRANInformationList CRITICALITY ignore EXTENSION DataForwardingtoE-UTRANInformationList PRESENCE optional }|

{ID id-SecurityIndicationModify CRITICALITY ignore EXTENSION SecurityIndication PRESENCE optional },

...

}

PDU-Session-Resource-To-Remove-List ::= SEQUENCE (SIZE(1.. maxnoofPDUSessionResource)) OF PDU-Session-Resource-To-Remove-Item

PDU-Session-Resource-To-Remove-Item ::= SEQUENCE {

pDU-Session-ID PDU-Session-ID,

iE-Extensions ProtocolExtensionContainer { { PDU-Session-Resource-To-Remove-Item-ExtIEs } } OPTIONAL,

...

}

PDU-Session-Resource-To-Remove-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

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

...

}

PDU-Session-Resource-To-Setup-List ::= SEQUENCE (SIZE(1.. maxnoofPDUSessionResource)) OF PDU-Session-Resource-To-Setup-Item

PDU-Session-Resource-To-Setup-Item ::= SEQUENCE {

pDU-Session-ID PDU-Session-ID,

pDU-Session-Type PDU-Session-Type,

sNSSAI SNSSAI,

securityIndication SecurityIndication,

pDU-Session-Resource-DL-AMBR BitRate OPTIONAL,

nG-UL-UP-TNL-Information UP-TNL-Information,

pDU-Session-Data-Forwarding-Information-Request Data-Forwarding-Information-Request OPTIONAL,

pDU-Session-Inactivity-Timer Inactivity-Timer OPTIONAL,

existing-Allocated-NG-DL-UP-TNL-Info UP-TNL-Information OPTIONAL,

networkInstance NetworkInstance OPTIONAL,

dRB-To-Setup-List-NG-RAN DRB-To-Setup-List-NG-RAN,

iE-Extensions ProtocolExtensionContainer { { PDU-Session-Resource-To-Setup-Item-ExtIEs } } OPTIONAL,

...

}

PDU-Session-Resource-To-Setup-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

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

{ ID id-redundant-nG-UL-UP-TNL-Information CRITICALITY ignore EXTENSION UP-TNL-Information PRESENCE optional }|

{ ID id-RedundantCommonNetworkInstance CRITICALITY ignore EXTENSION CommonNetworkInstance PRESENCE optional }|

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

...

}

PDU-Session-Resource-To-Setup-Mod-List ::= SEQUENCE (SIZE(1.. maxnoofPDUSessionResource)) OF PDU-Session-Resource-To-Setup-Mod-Item

PDU-Session-Resource-To-Setup-Mod-Item ::= SEQUENCE {

pDU-Session-ID PDU-Session-ID,

pDU-Session-Type PDU-Session-Type,

sNSSAI SNSSAI,

securityIndication SecurityIndication,

pDU-Session-Resource-AMBR BitRate OPTIONAL,

nG-UL-UP-TNL-Information UP-TNL-Information,

pDU-Session-Data-Forwarding-Information-Request Data-Forwarding-Information-Request OPTIONAL,

pDU-Session-Inactivity-Timer Inactivity-Timer OPTIONAL,

dRB-To-Setup-Mod-List-NG-RAN DRB-To-Setup-Mod-List-NG-RAN,

iE-Extensions ProtocolExtensionContainer { { PDU-Session-Resource-To-Setup-Mod-Item-ExtIEs } } OPTIONAL,

...

}

PDU-Session-Resource-To-Setup-Mod-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

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

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

{ID id-redundant-nG-UL-UP-TNL-Information CRITICALITY ignore EXTENSION UP-TNL-Information PRESENCE optional }|

{ID id-RedundantCommonNetworkInstance CRITICALITY ignore EXTENSION CommonNetworkInstance PRESENCE optional },

...

}

PDU-Session-To-Notify-List ::= SEQUENCE (SIZE(1.. maxnoofPDUSessionResource)) OF PDU-Session-To-Notify-Item

PDU-Session-To-Notify-Item ::= SEQUENCE {

pDU-Session-ID PDU-Session-ID,

qoS-Flow-List QoS-Flow-List,

iE-Extensions ProtocolExtensionContainer { { PDU-Session-To-Notify-Item-ExtIEs } } OPTIONAL,

...

}

PDU-Session-To-Notify-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

PDU-Session-Type ::= ENUMERATED {

ipv4,

ipv6,

ipv4v6,

ethernet,

unstructured,

...

}

PLMN-Identity ::= OCTET STRING (SIZE(3))

PortNumber ::= BIT STRING (SIZE(16))

PPI ::= INTEGER (0..7, ...)

PriorityLevel ::= INTEGER { spare (0), highest (1), lowest (14), no-priority (15) } (0..15)

Pre-emptionCapability ::= ENUMERATED {

shall-not-trigger-pre-emption,

may-trigger-pre-emption

}

Pre-emptionVulnerability ::= ENUMERATED {

not-pre-emptable,

pre-emptable

}

PrivacyIndicator ::= ENUMERATED {

immediate-MDT,

logged-MDT,

...

}

-- Q

QCI ::= INTEGER (0..255)

QoS-Characteristics ::= CHOICE {

non-Dynamic-5QI Non-Dynamic5QIDescriptor,

dynamic-5QI Dynamic5QIDescriptor,

choice-extension ProtocolIE-SingleContainer {{QoS-Characteristics-ExtIEs}}

}

QoS-Characteristics-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

QoS-Flow-Identifier ::= INTEGER (0..63)

QoS-Flow-List ::= SEQUENCE (SIZE(1.. maxnoofQoSFlows)) OF QoS-Flow-Item

QoS-Flow-Item ::= SEQUENCE {

qoS-Flow-Identifier QoS-Flow-Identifier,

iE-Extensions ProtocolExtensionContainer { { QoS-Flow-Item-ExtIEs } } OPTIONAL,

...

}

QoS-Flow-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ID id-QoSFlowMappingIndication CRITICALITY ignore EXTENSION QoS-Flow-Mapping-Indication PRESENCE optional}|

{ID id-DataForwardingSourceIPAddress CRITICALITY ignore EXTENSION TransportLayerAddress PRESENCE optional},

...

}

QoS-Flow-Failed-List ::= SEQUENCE (SIZE(1.. maxnoofQoSFlows)) OF QoS-Flow-Failed-Item

QoS-Flow-Failed-Item ::= SEQUENCE {

qoS-Flow-Identifier QoS-Flow-Identifier,

cause Cause,

iE-Extensions ProtocolExtensionContainer { { QoS-Flow-Failed-Item-ExtIEs } } OPTIONAL,

...

}

QoS-Flow-Failed-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

QoS-Flow-Mapping-List ::= SEQUENCE (SIZE(1.. maxnoofQoSFlows)) OF QoS-Flow-Mapping-Item

QoS-Flow-Mapping-Item ::= SEQUENCE {

qoS-Flow-Identifier QoS-Flow-Identifier,

qoSFlowMappingIndication QoS-Flow-Mapping-Indication OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { QoS-Flow-Mapping-Item-ExtIEs } } OPTIONAL,

...

}

QoS-Flow-Mapping-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

QoS-Flow-Mapping-Indication ::= ENUMERATED {ul, dl, ...}

QoS-Flows-DRB-Remapping ::= ENUMERATED {update, source-configuration, ...}

QoS-Parameters-Support-List ::= SEQUENCE {

eUTRAN-QoS-Support-List EUTRAN-QoS-Support-List OPTIONAL,

nG-RAN-QoS-Support-List NG-RAN-QoS-Support-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { QoS-Parameters-Support-List-ItemExtIEs} } OPTIONAL,

...

}

QoS-Parameters-Support-List-ItemExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

QoSPriorityLevel ::= INTEGER (0..127, ...)

QoS-Flow-QoS-Parameter-List ::= SEQUENCE (SIZE(1.. maxnoofQoSFlows)) OF QoS-Flow-QoS-Parameter-Item

QoS-Flow-QoS-Parameter-Item ::= SEQUENCE {

qoS-Flow-Identifier QoS-Flow-Identifier,

qoSFlowLevelQoSParameters QoSFlowLevelQoSParameters,

qoSFlowMappingIndication QoS-Flow-Mapping-Indication OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { QoS-Flow-QoS-Parameter-Item-ExtIEs } } OPTIONAL,

...

}

QoS-Flow-QoS-Parameter-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ID id-RedundantQosFlowIndicator CRITICALITY ignore EXTENSION RedundantQoSFlowIndicator PRESENCE optional}|

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

...

}

QoSFlowLevelQoSParameters ::= SEQUENCE {

qoS-Characteristics QoS-Characteristics,

nGRANallocationRetentionPriority NGRANAllocationAndRetentionPriority,

gBR-QoS-Flow-Information GBR-QoSFlowInformation OPTIONAL,

reflective-QoS-Attribute ENUMERATED {subject-to, ...} OPTIONAL,

additional-QoS-Information ENUMERATED {more-likely, ...} OPTIONAL,

paging-Policy-Indicator INTEGER (1..8, ...) OPTIONAL,

reflective-QoS-Indicator ENUMERATED {enabled, ...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { QoSFlowLevelQoSParameters-ExtIEs } } OPTIONAL

}

QoSFlowLevelQoSParameters-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ID id-QoSMonitoringRequest CRITICALITY ignore EXTENSION QosMonitoringRequest PRESENCE optional}|

{ID id-MCG-OfferedGBRQoSFlowInfo CRITICALITY ignore EXTENSION GBR-QoSFlowInformation PRESENCE optional}|

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

{ID id-QoSMonitoringDisabled CRITICALITY ignore EXTENSION QosMonitoringDisabled PRESENCE optional}|

{ID id-DataForwardingSourceIPAddress CRITICALITY ignore EXTENSION TransportLayerAddress PRESENCE optional},

...

}

QosMonitoringRequest ::= ENUMERATED {ul, dl, both}

QosMonitoringReportingFrequency ::= INTEGER (1..1800, ...)

QosMonitoringDisabled ::= ENUMERATED {true, ...}

QoS-Flow-Removed-Item ::= SEQUENCE {

qoS-Flow-Identifier QoS-Flow-Identifier,

qoS-Flow-Released-In-Session ENUMERATED {released-in-session, not-released-in-session, ...} OPTIONAL,

qoS-Flow-Accumulated-Session-Time OCTET STRING (SIZE(5)) OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { QoS-Flow-Removed-Item-ExtIEs } } OPTIONAL,

...

}

QoS-Flow-Removed-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

QoS-Flows-to-be-forwarded-List ::= SEQUENCE (SIZE(1.. maxnoofQoSFlows)) OF QoS-Flows-to-be-forwarded-Item

QoS-Flows-to-be-forwarded-Item ::= SEQUENCE {

qoS-Flow-Identifier QoS-Flow-Identifier,

iE-Extensions ProtocolExtensionContainer { { QoS-Flows-to-be-forwarded-Item-ExtIEs } } OPTIONAL,

...

}

QoS-Flows-to-be-forwarded-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

QoS-Mapping-Information ::= SEQUENCE {

dscp BIT STRING (SIZE(6)) OPTIONAL,

flow-label BIT STRING (SIZE(20)) OPTIONAL,

...

}

DataForwardingtoNG-RANQoSFlowInformationList ::= SEQUENCE (SIZE(1.. maxnoofQoSFlows)) OF DataForwardingtoNG-RANQoSFlowInformationList-Item

DataForwardingtoNG-RANQoSFlowInformationList-Item ::= SEQUENCE {

qoS-Flow-Identifier QoS-Flow-Identifier,

iE-Extensions ProtocolExtensionContainer { { DataForwardingtoNG-RANQoSFlowInformationList-Item-ExtIEs} } OPTIONAL,

...

}

DataForwardingtoNG-RANQoSFlowInformationList-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- R

RANUEID ::= OCTET STRING (SIZE (8))

RAT-Type ::= ENUMERATED {

e-UTRA,

nR,

...

}

RedundantQoSFlowIndicator::= ENUMERATED {true,false}

RedundantPDUSessionInformation ::= SEQUENCE {

rSN RSN,

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

...

}

RedundantPDUSessionInformation-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ID id-PDUSession-PairID CRITICALITY ignore EXTENSION PDUSession-PairID PRESENCE optional },

...

}

RSN ::= ENUMERATED {v1, v2, ...}

RetainabilityMeasurementsInfo ::= SEQUENCE (SIZE(1.. maxnoofDRBs)) OF DRB-Removed-Item

RegistrationRequest ::= ENUMERATED {

start,

stop,

...

}

ReportCharacteristics ::= BIT STRING (SIZE(36))

ReportingPeriodicity ::= ENUMERATED {

ms500, ms1000, ms2000, ms5000, ms10000, ms20000, ms30000, ms40000, ms50000, ms60000, ms70000, ms80000, ms90000, ms100000, ms110000, ms120000,

...

}

RequestedAction4AvailNGUTermination ::= ENUMERATED {

apply-available-configuration,

apply-requested-configuration,

...

}

RLC-Mode ::= ENUMERATED {

rlc-tm,

rlc-am,

rlc-um-bidirectional,

rlc-um-unidirectional-ul,

rlc-um-unidirectional-dl,

...

}

ROHC-Parameters ::= CHOICE {

rOHC ROHC,

uPlinkOnlyROHC UplinkOnlyROHC,

choice-Extension ProtocolIE-SingleContainer { { ROHC-Parameters-ExtIEs} }

}

ROHC-Parameters-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

ROHC ::= SEQUENCE {

maxCID INTEGER (0..16383, ...),

rOHC-Profiles INTEGER (0..511, ...),

continueROHC ENUMERATED {true, ...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { ROHC-ExtIEs } } OPTIONAL

}

ROHC-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- S

SCGActivationStatus ::= ENUMERATED { scg-activated, scg-deactivated, ...}

SecurityAlgorithm ::= SEQUENCE {

cipheringAlgorithm CipheringAlgorithm,

integrityProtectionAlgorithm IntegrityProtectionAlgorithm OPTIONAL,

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

...

}

SecurityAlgorithm-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

SecurityIndication ::= SEQUENCE {

integrityProtectionIndication IntegrityProtectionIndication,

confidentialityProtectionIndication ConfidentialityProtectionIndication,

maximumIPdatarate MaximumIPdatarate OPTIONAL,

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

...

}

SecurityIndication-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

SecurityInformation ::= SEQUENCE {

securityAlgorithm SecurityAlgorithm,

uPSecuritykey UPSecuritykey,

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

...

}

SecurityInformation-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

SecurityResult ::= SEQUENCE {

integrityProtectionResult IntegrityProtectionResult,

confidentialityProtectionResult ConfidentialityProtectionResult,

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

...

}

SecurityResult-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

Slice-Support-List ::= SEQUENCE (SIZE(1.. maxnoofSliceItems)) OF Slice-Support-Item

Slice-Support-Item ::= SEQUENCE {

sNSSAI SNSSAI,

iE-Extensions ProtocolExtensionContainer { { Slice-Support-Item-ExtIEs } } OPTIONAL

}

Slice-Support-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

SNSSAI ::= SEQUENCE {

sST OCTET STRING (SIZE(1)),

sD OCTET STRING (SIZE(3)) OPTIONAL,

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

...

}

SNSSAI-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

SDAP-Configuration ::= SEQUENCE {

defaultDRB DefaultDRB,

sDAP-Header-UL SDAP-Header-UL,

sDAP-Header-DL SDAP-Header-DL,

iE-Extensions ProtocolExtensionContainer { { SDAP-Configuration-ExtIEs } } OPTIONAL,

...

}

SDAP-Configuration-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

SDAP-Header-DL ::= ENUMERATED {

present,

absent,

...

}

SDAP-Header-UL ::= ENUMERATED {

present,

absent,

...

}

SDTContinueROHC ::= ENUMERATED {true, ...}

SDTindicatorSetup ::= ENUMERATED {true, ...}

SDTindicatorMod ::= ENUMERATED {true, false, ...}

SubscriberProfileIDforRFP ::= INTEGER (1..256, ...)

SurvivalTime ::= INTEGER (0..1920000, ...)

-- T

TimeToWait ::= ENUMERATED {v1s, v2s, v5s, v10s, v20s, v60s, ...}

TNLAssociationUsage ::= ENUMERATED {

ue,

non-ue,

both,

...

}

TNL-AvailableCapacityIndicator ::= SEQUENCE {

dL-TNL-OfferedCapacity INTEGER (0..16777216, ...),

dL-TNL-AvailableCapacity INTEGER (0..100, ...),

uL-TNL-OfferedCapacity INTEGER (0..16777216, ...),

uL-TNL-AvailableCapacity INTEGER (0..100, ...),

iE-Extensions ProtocolExtensionContainer { { TNL-AvailableCapacityIndicator-ExtIEs } },

...

}

TNL-AvailableCapacityIndicator-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

TSCTrafficCharacteristics ::= SEQUENCE {

tSCTrafficCharacteristicsUL TSCTrafficInformation OPTIONAL,

tSCTrafficCharacteristicsDL TSCTrafficInformation OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { TSCTrafficCharacteristics-ExtIEs } } OPTIONAL

}

TSCTrafficCharacteristics-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

TSCTrafficInformation ::= SEQUENCE {

periodicity Periodicity,

burstArrivalTime BurstArrivalTime OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { TSCTrafficInformation-ExtIEs } } OPTIONAL

}

TSCTrafficInformation-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

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

...

}

Periodicity ::= INTEGER (1..640000, ...)

BurstArrivalTime ::= OCTET STRING

TraceActivation ::= SEQUENCE {

traceID TraceID,

interfacesToTrace InterfacesToTrace,

traceDepth TraceDepth,

traceCollectionEntityIPAddress TransportLayerAddress,

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

...

}

TraceActivation-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ ID id-MDTConfiguration CRITICALITY ignore EXTENSION MDT-Configuration PRESENCE optional }|

{ ID id-TraceCollectionEntityURI CRITICALITY ignore EXTENSION URIaddress PRESENCE optional},

...

}

TraceDepth ::= ENUMERATED {

minimum,

medium,

maximum,

minimumWithoutVendorSpecificExtension,

mediumWithoutVendorSpecificExtension,

maximumWithoutVendorSpecificExtension,

...

}

TraceID ::= OCTET STRING (SIZE(8))

TransportLayerAddress ::= BIT STRING (SIZE(1..160, ...))

TransactionID ::= INTEGER (0..255, ...)

T-Reordering ::= ENUMERATED {ms0, ms1, ms2, ms4, ms5, ms8, ms10, ms15, ms20, ms30, ms40, ms50, ms60, ms80, ms100, ms120, ms140, ms160, ms180, ms200, ms220, ms240, ms260, ms280, ms300, ms500, ms750, ms1000, ms1250, ms1500, ms1750, ms2000, ms2250, ms2500, ms2750, ms3000, ...}

T-ReorderingTimer ::= SEQUENCE {

t-Reordering T-Reordering,

iE-Extensions ProtocolExtensionContainer { { T-ReorderingTimer-ExtIEs } } OPTIONAL,

...

}

T-ReorderingTimer-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

TypeOfError ::= ENUMERATED {

not-understood,

missing,

...

}

Transport-Layer-Address-Info ::= SEQUENCE {

transport-UP-Layer-Addresses-Info-To-Add-List Transport-UP-Layer-Addresses-Info-To-Add-List OPTIONAL,

transport-UP-Layer-Addresses-Info-To-Remove-List Transport-UP-Layer-Addresses-Info-To-Remove-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Transport-Layer-Address-Info-ExtIEs} } OPTIONAL,

...

}

Transport-Layer-Address-Info-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

Transport-UP-Layer-Addresses-Info-To-Add-List ::= SEQUENCE (SIZE(1.. maxnoofTLAs)) OF Transport-UP-Layer-Addresses-Info-To-Add-Item

Transport-UP-Layer-Addresses-Info-To-Add-Item ::= SEQUENCE {

iP-SecTransportLayerAddress TransportLayerAddress,

gTPTransportLayerAddressesToAdd GTPTLAs OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Transport-UP-Layer-Addresses-Info-To-Add-ItemExtIEs } } OPTIONAL,

...

}

Transport-UP-Layer-Addresses-Info-To-Add-ItemExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

Transport-UP-Layer-Addresses-Info-To-Remove-List ::= SEQUENCE (SIZE(1.. maxnoofTLAs)) OF Transport-UP-Layer-Addresses-Info-To-Remove-Item

Transport-UP-Layer-Addresses-Info-To-Remove-Item ::= SEQUENCE {

iP-SecTransportLayerAddress TransportLayerAddress,

gTPTransportLayerAddressesToRemove GTPTLAs OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { Transport-UP-Layer-Addresses-Info-To-Remove-ItemExtIEs } } OPTIONAL,

...

}

Transport-UP-Layer-Addresses-Info-To-Remove-ItemExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

-- U

UDC-Parameters ::= SEQUENCE {

bufferSize BufferSize,

dictionary Dictionary OPTIONAL,

continueUDC ENUMERATED {true, ...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { UDC-Parameters-ExtIEs } } OPTIONAL

}

UDC-Parameters-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

UE-Activity ::= ENUMERATED {

active,

not-active,

...

}

UE-associatedLogicalE1-ConnectionItem ::= SEQUENCE {

gNB-CU-CP-UE-E1AP-ID GNB-CU-CP-UE-E1AP-ID OPTIONAL,

gNB-CU-UP-UE-E1AP-ID GNB-CU-UP-UE-E1AP-ID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { UE-associatedLogicalE1-ConnectionItemExtIEs} } OPTIONAL,

...

}

UE-associatedLogicalE1-ConnectionItemExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

UESliceMaximumBitRateList ::= SEQUENCE (SIZE(1.. maxnoofSMBRValues)) OF UESliceMaximumBitRateItem

UESliceMaximumBitRateItem ::= SEQUENCE {

sNSSAI SNSSAI,

uESliceMaximumBitRateDL BitRate,

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

...

}

UESliceMaximumBitRateItem-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

UL-Configuration ::= ENUMERATED {

no-data,

shared,

only,

...

}

ULUPTNLAddressToUpdateItem ::= SEQUENCE {

oldTNLAdress TransportLayerAddress,

newTNLAdress TransportLayerAddress,

iE-Extensions ProtocolExtensionContainer { { ULUPTNLAddressToUpdateItemExtIEs } } OPTIONAL,

...

}

ULUPTNLAddressToUpdateItemExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

ULDataSplitThreshold ::= ENUMERATED {b0, b100, b200, b400, b800, b1600, b3200, b6400, b12800, b25600, b51200, b102400, b204800, b409600, b819200, b1228800, b1638400, b2457600, b3276800, b4096000, b4915200, b5734400, b6553600, infinity, ...}

UP-Parameters ::= SEQUENCE (SIZE(1.. maxnoofUPParameters)) OF UP-Parameters-Item

UP-Parameters-Item ::= SEQUENCE {

uP-TNL-Information UP-TNL-Information,

cell-Group-ID Cell-Group-ID,

iE-Extensions ProtocolExtensionContainer { { UP-Parameters-Item-ExtIEs } } OPTIONAL,

...

}

UP-Parameters-Item-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

{ID id-QoS-Mapping-Information CRITICALITY reject EXTENSION QoS-Mapping-Information PRESENCE optional},

...

}

UPSecuritykey ::= SEQUENCE {

encryptionKey EncryptionKey,

integrityProtectionKey IntegrityProtectionKey OPTIONAL,

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

...

}

UPSecuritykey-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

UP-TNL-Information ::= CHOICE {

gTPTunnel GTPTunnel,

choice-extension ProtocolIE-SingleContainer {{UP-TNL-Information-ExtIEs}}

}

UP-TNL-Information-ExtIEs E1AP-PROTOCOL-IES ::= {

...

}

UplinkOnlyROHC ::= SEQUENCE {

maxCID INTEGER (0..16383, ...),

rOHC-Profiles INTEGER (0..511, ...),

continueROHC ENUMERATED {true, ...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { UplinkOnlyROHC-ExtIEs } } OPTIONAL

}

UplinkOnlyROHC-ExtIEs E1AP-PROTOCOL-EXTENSION ::= {

...

}

URIaddress ::= VisibleString

-- V

-- W

-- X

-- Y

-- Z

END

-- ASN1STOP

9.4.6 Common Definitions

-- ASN1START

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

--

-- Common definitions

--

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

E1AP-CommonDataTypes {

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

ngran-access (22) modules (3) e1ap (5) version1 (1) e1ap-CommonDataTypes (3)}

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

--

-- Extension constants

--

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

maxPrivateIEs INTEGER ::= 65535

maxProtocolExtensions INTEGER ::= 65535

maxProtocolIEs INTEGER ::= 65535

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

--

-- Common Data Types

--

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

Criticality ::= ENUMERATED { reject, ignore, notify }

Presence ::= ENUMERATED { optional, conditional, mandatory }

PrivateIE-ID ::= CHOICE {

local INTEGER (0.. maxPrivateIEs),

global OBJECT IDENTIFIER

}

ProcedureCode ::= INTEGER (0..255)

ProtocolExtensionID ::= INTEGER (0..maxProtocolExtensions)

ProtocolIE-ID ::= INTEGER (0..maxProtocolIEs)

TriggeringMessage ::= ENUMERATED { initiating-message, successful-outcome, unsuccessful-outcome}

END

-- ASN1STOP

9.4.7 Constant Definitions

-- ASN1START

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

--

-- Constant definitions

--

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

E1AP-Constants {

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

ngran-access (22) modules (3) e1ap (5) version1 (1) e1ap-Constants (4) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

ProcedureCode,

ProtocolIE-ID

FROM E1AP-CommonDataTypes;

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

--

-- Elementary Procedures

--

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

id-reset ProcedureCode ::= 0

id-errorIndication ProcedureCode ::= 1

id-privateMessage ProcedureCode ::= 2

id-gNB-CU-UP-E1Setup ProcedureCode ::= 3

id-gNB-CU-CP-E1Setup ProcedureCode ::= 4

id-gNB-CU-UP-ConfigurationUpdate ProcedureCode ::= 5

id-gNB-CU-CP-ConfigurationUpdate ProcedureCode ::= 6

id-e1Release ProcedureCode ::= 7

id-bearerContextSetup ProcedureCode ::= 8

id-bearerContextModification ProcedureCode ::= 9

id-bearerContextModificationRequired ProcedureCode ::= 10

id-bearerContextRelease ProcedureCode ::= 11

id-bearerContextReleaseRequest ProcedureCode ::= 12

id-bearerContextInactivityNotification ProcedureCode ::= 13

id-dLDataNotification ProcedureCode ::= 14

id-dataUsageReport ProcedureCode ::= 15

id-gNB-CU-UP-CounterCheck ProcedureCode ::= 16

id-gNB-CU-UP-StatusIndication ProcedureCode ::= 17

id-uLDataNotification ProcedureCode ::= 18

id-mRDC-DataUsageReport ProcedureCode ::= 19

id-TraceStart ProcedureCode ::= 20

id-DeactivateTrace ProcedureCode ::= 21

id-resourceStatusReportingInitiation ProcedureCode ::= 22

id-resourceStatusReporting ProcedureCode ::= 23

id-iAB-UPTNLAddressUpdate ProcedureCode ::= 24

id-CellTrafficTrace ProcedureCode ::= 25

id-earlyForwardingSNTransfer ProcedureCode ::= 26

id-gNB-CU-CPMeasurementResultsInformation ProcedureCode ::= 27

id-iABPSKNotification ProcedureCode ::= 28

id-BCBearerContextSetup ProcedureCode ::= 29

id-BCBearerContextModification ProcedureCode ::= 30

id-BCBearerContextModificationRequired ProcedureCode ::= 31

id-BCBearerContextRelease ProcedureCode ::= 32

id-BCBearerContextReleaseRequest ProcedureCode ::= 33

id-MCBearerContextSetup ProcedureCode ::= 34

id-MCBearerContextModification ProcedureCode ::= 35

id-MCBearerContextModificationRequired ProcedureCode ::= 36

id-MCBearerContextRelease ProcedureCode ::= 37

id-MCBearerContextReleaseRequest ProcedureCode ::= 38

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

--

-- Lists

--

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

maxnoofErrors INTEGER ::= 256

maxnoofSPLMNs INTEGER ::= 12

maxnoofSliceItems INTEGER ::= 1024

maxnoofIndividualE1ConnectionsToReset INTEGER ::= 65536

maxnoofEUTRANQOSParameters INTEGER ::= 256

maxnoofNGRANQOSParameters INTEGER ::= 256

maxnoofDRBs INTEGER ::= 32

maxnoofNRCGI INTEGER ::= 512

maxnoofPDUSessionResource INTEGER ::= 256

maxnoofQoSFlows INTEGER ::= 64

maxnoofUPParameters INTEGER ::= 8

maxnoofCellGroups INTEGER ::= 4

maxnooftimeperiods INTEGER ::= 2

maxnoofTNLAssociations INTEGER ::= 32

maxnoofTLAs INTEGER ::= 16

maxnoofGTPTLAs INTEGER ::= 16

maxnoofTNLAddresses INTEGER ::= 8

maxnoofMDTPLMNs INTEGER ::= 16

maxnoofQoSParaSets INTEGER ::= 8

maxnoofExtSliceItems INTEGER ::= 65535

maxnoofDataForwardingTunneltoE-UTRAN INTEGER ::= 256

maxnoofExtNRCGI INTEGER ::= 16384

maxnoofPSKs INTEGER ::= 256

maxnoofECGI INTEGER ::= 512

maxnoofSMBRValues INTEGER ::= 8

maxnoofMBSAreaSessionIDs INTEGER ::= 256

maxnoofSharedNG-UTerminations INTEGER ::= 8

maxnoofMRBs INTEGER ::= 32

maxnoofMBSSessionIDs INTEGER ::= 512

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

--

-- IEs

--

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

id-Cause ProtocolIE-ID ::= 0

id-CriticalityDiagnostics ProtocolIE-ID ::= 1

id-gNB-CU-CP-UE-E1AP-ID ProtocolIE-ID ::= 2

id-gNB-CU-UP-UE-E1AP-ID ProtocolIE-ID ::= 3

id-ResetType ProtocolIE-ID ::= 4

id-UE-associatedLogicalE1-ConnectionItem ProtocolIE-ID ::= 5

id-UE-associatedLogicalE1-ConnectionListResAck ProtocolIE-ID ::= 6

id-gNB-CU-UP-ID ProtocolIE-ID ::= 7

id-gNB-CU-UP-Name ProtocolIE-ID ::= 8

id-gNB-CU-CP-Name ProtocolIE-ID ::= 9

id-CNSupport ProtocolIE-ID ::= 10

id-SupportedPLMNs ProtocolIE-ID ::= 11

id-TimeToWait ProtocolIE-ID ::= 12

id-SecurityInformation ProtocolIE-ID ::= 13

id-UEDLAggregateMaximumBitRate ProtocolIE-ID ::= 14

id-System-BearerContextSetupRequest ProtocolIE-ID ::= 15

id-System-BearerContextSetupResponse ProtocolIE-ID ::= 16

id-BearerContextStatusChange ProtocolIE-ID ::= 17

id-System-BearerContextModificationRequest ProtocolIE-ID ::= 18

id-System-BearerContextModificationResponse ProtocolIE-ID ::= 19

id-System-BearerContextModificationConfirm ProtocolIE-ID ::= 20

id-System-BearerContextModificationRequired ProtocolIE-ID ::= 21

id-DRB-Status-List ProtocolIE-ID ::= 22

id-ActivityNotificationLevel ProtocolIE-ID ::= 23

id-ActivityInformation ProtocolIE-ID ::= 24

id-Data-Usage-Report-List ProtocolIE-ID ::= 25

id-New-UL-TNL-Information-Required ProtocolIE-ID ::= 26

id-GNB-CU-CP-TNLA-To-Add-List ProtocolIE-ID ::= 27

id-GNB-CU-CP-TNLA-To-Remove-List ProtocolIE-ID ::= 28

id-GNB-CU-CP-TNLA-To-Update-List ProtocolIE-ID ::= 29

id-GNB-CU-CP-TNLA-Setup-List ProtocolIE-ID ::= 30

id-GNB-CU-CP-TNLA-Failed-To-Setup-List ProtocolIE-ID ::= 31

id-DRB-To-Setup-List-EUTRAN ProtocolIE-ID ::= 32

id-DRB-To-Modify-List-EUTRAN ProtocolIE-ID ::= 33

id-DRB-To-Remove-List-EUTRAN ProtocolIE-ID ::= 34

id-DRB-Required-To-Modify-List-EUTRAN ProtocolIE-ID ::= 35

id-DRB-Required-To-Remove-List-EUTRAN ProtocolIE-ID ::= 36

id-DRB-Setup-List-EUTRAN ProtocolIE-ID ::= 37

id-DRB-Failed-List-EUTRAN ProtocolIE-ID ::= 38

id-DRB-Modified-List-EUTRAN ProtocolIE-ID ::= 39

id-DRB-Failed-To-Modify-List-EUTRAN ProtocolIE-ID ::= 40

id-DRB-Confirm-Modified-List-EUTRAN ProtocolIE-ID ::= 41

id-PDU-Session-Resource-To-Setup-List ProtocolIE-ID ::= 42

id-PDU-Session-Resource-To-Modify-List ProtocolIE-ID ::= 43

id-PDU-Session-Resource-To-Remove-List ProtocolIE-ID ::= 44

id-PDU-Session-Resource-Required-To-Modify-List ProtocolIE-ID ::= 45

id-PDU-Session-Resource-Setup-List ProtocolIE-ID ::= 46

id-PDU-Session-Resource-Failed-List ProtocolIE-ID ::= 47

id-PDU-Session-Resource-Modified-List ProtocolIE-ID ::= 48

id-PDU-Session-Resource-Failed-To-Modify-List ProtocolIE-ID ::= 49

id-PDU-Session-Resource-Confirm-Modified-List ProtocolIE-ID ::= 50

id-DRB-To-Setup-Mod-List-EUTRAN ProtocolIE-ID ::= 51

id-DRB-Setup-Mod-List-EUTRAN ProtocolIE-ID ::= 52

id-DRB-Failed-Mod-List-EUTRAN ProtocolIE-ID ::= 53

id-PDU-Session-Resource-Setup-Mod-List ProtocolIE-ID ::= 54

id-PDU-Session-Resource-Failed-Mod-List ProtocolIE-ID ::= 55

id-PDU-Session-Resource-To-Setup-Mod-List ProtocolIE-ID ::= 56

id-TransactionID ProtocolIE-ID ::= 57

id-Serving-PLMN ProtocolIE-ID ::= 58

id-UE-Inactivity-Timer ProtocolIE-ID ::= 59

id-System-GNB-CU-UP-CounterCheckRequest ProtocolIE-ID ::= 60

id-DRBs-Subject-To-Counter-Check-List-EUTRAN ProtocolIE-ID ::= 61

id-DRBs-Subject-To-Counter-Check-List-NG-RAN ProtocolIE-ID ::= 62

id-PPI ProtocolIE-ID ::= 63

id-gNB-CU-UP-Capacity ProtocolIE-ID ::= 64

id-GNB-CU-UP-OverloadInformation ProtocolIE-ID ::= 65

id-UEDLMaximumIntegrityProtectedDataRate ProtocolIE-ID ::= 66

id-PDU-Session-To-Notify-List ProtocolIE-ID ::= 67

id-PDU-Session-Resource-Data-Usage-List ProtocolIE-ID ::= 68

id-SNSSAI ProtocolIE-ID ::= 69

id-DataDiscardRequired ProtocolIE-ID ::= 70

id-OldQoSFlowMap-ULendmarkerexpected ProtocolIE-ID ::= 71

id-DRB-QoS ProtocolIE-ID ::= 72

id-GNB-CU-UP-TNLA-To-Remove-List ProtocolIE-ID ::= 73

id-endpoint-IP-Address-and-Port ProtocolIE-ID ::= 74

id-TNLAssociationTransportLayerAddressgNBCUUP ProtocolIE-ID ::= 75

id-RANUEID ProtocolIE-ID ::= 76

id-GNB-DU-ID ProtocolIE-ID ::= 77

id-CommonNetworkInstance ProtocolIE-ID ::= 78

id-NetworkInstance ProtocolIE-ID ::= 79

id-QoSFlowMappingIndication ProtocolIE-ID ::= 80

id-TraceActivation ProtocolIE-ID ::= 81

id-TraceID ProtocolIE-ID ::= 82

id-SubscriberProfileIDforRFP ProtocolIE-ID ::= 83

id-AdditionalRRMPriorityIndex ProtocolIE-ID ::= 84

id-RetainabilityMeasurementsInfo ProtocolIE-ID ::= 85

id-Transport-Layer-Address-Info ProtocolIE-ID ::= 86

id-QoSMonitoringRequest ProtocolIE-ID ::= 87

id-PDCP-StatusReportIndication ProtocolIE-ID ::= 88

id-gNB-CU-CP-Measurement-ID ProtocolIE-ID ::= 89

id-gNB-CU-UP-Measurement-ID ProtocolIE-ID ::= 90

id-RegistrationRequest ProtocolIE-ID ::= 91

id-ReportCharacteristics ProtocolIE-ID ::= 92

id-ReportingPeriodicity ProtocolIE-ID ::= 93

id-TNL-AvailableCapacityIndicator ProtocolIE-ID ::= 94

id-HW-CapacityIndicator ProtocolIE-ID ::= 95

id-RedundantCommonNetworkInstance ProtocolIE-ID ::= 96

id-redundant-nG-UL-UP-TNL-Information ProtocolIE-ID ::= 97

id-redundant-nG-DL-UP-TNL-Information ProtocolIE-ID ::= 98

id-RedundantQosFlowIndicator ProtocolIE-ID ::= 99

id-TSCTrafficCharacteristics ProtocolIE-ID ::= 100

id-CNPacketDelayBudgetDownlink ProtocolIE-ID ::= 101

id-CNPacketDelayBudgetUplink ProtocolIE-ID ::= 102

id-ExtendedPacketDelayBudget ProtocolIE-ID ::= 103

id-AdditionalPDCPduplicationInformation ProtocolIE-ID ::= 104

id-RedundantPDUSessionInformation ProtocolIE-ID ::= 105

id-RedundantPDUSessionInformation-used ProtocolIE-ID ::= 106

id-QoS-Mapping-Information ProtocolIE-ID ::= 107

id-DLUPTNLAddressToUpdateList ProtocolIE-ID ::= 108

id-ULUPTNLAddressToUpdateList ProtocolIE-ID ::= 109

id-NPNSupportInfo ProtocolIE-ID ::= 110

id-NPNContextInfo ProtocolIE-ID ::= 111

id-MDTConfiguration ProtocolIE-ID ::= 112

id-ManagementBasedMDTPLMNList ProtocolIE-ID ::= 113

id-TraceCollectionEntityIPAddress ProtocolIE-ID ::= 114

id-PrivacyIndicator ProtocolIE-ID ::= 115

id-TraceCollectionEntityURI ProtocolIE-ID ::= 116

id-URIaddress ProtocolIE-ID ::= 117

id-EHC-Parameters ProtocolIE-ID ::= 118

id-DRBs-Subject-To-Early-Forwarding-List ProtocolIE-ID ::= 119

id-DAPSRequestInfo ProtocolIE-ID ::= 120

id-CHOInitiation ProtocolIE-ID ::= 121

id-EarlyForwardingCOUNTReq ProtocolIE-ID ::= 122

id-EarlyForwardingCOUNTInfo ProtocolIE-ID ::= 123

id-AlternativeQoSParaSetList ProtocolIE-ID ::= 124

id-ExtendedSliceSupportList ProtocolIE-ID ::= 125

id-MCG-OfferedGBRQoSFlowInfo ProtocolIE-ID ::= 126

id-Number-of-tunnels ProtocolIE-ID ::= 127

id-DRB-Measurement-Results-Information-List ProtocolIE-ID ::= 128

id-Extended-GNB-CU-CP-Name ProtocolIE-ID ::= 129

id-Extended-GNB-CU-UP-Name ProtocolIE-ID ::= 130

id-DataForwardingtoE-UTRANInformationList ProtocolIE-ID ::= 131

id-QosMonitoringReportingFrequency ProtocolIE-ID ::= 132

id-QoSMonitoringDisabled ProtocolIE-ID ::= 133

id-AdditionalHandoverInfo ProtocolIE-ID ::= 134

id-Extended-NR-CGI-Support-List ProtocolIE-ID ::= 135

id-DataForwardingtoNG-RANQoSFlowInformationList ProtocolIE-ID ::= 136

id-MaxCIDEHCDL ProtocolIE-ID ::= 137

id-ignoreMappingRuleIndication ProtocolIE-ID ::= 138

id-DirectForwardingPathAvailability ProtocolIE-ID ::= 139

id-EarlyDataForwardingIndicator ProtocolIE-ID ::= 140

id-QoSFlowsDRBRemapping ProtocolIE-ID ::= 141

id-DataForwardingSourceIPAddress ProtocolIE-ID ::= 142

id-SecurityIndicationModify ProtocolIE-ID ::= 143

id-IAB-Donor-CU-UPPSKInfo ProtocolIE-ID ::= 144

id-ECGI-Support-List ProtocolIE-ID ::= 145

id-MDTPollutedMeasurementIndicator ProtocolIE-ID ::= 146

id-M4ReportAmount ProtocolIE-ID ::= 147

id-M6ReportAmount ProtocolIE-ID ::= 148

id-M7ReportAmount ProtocolIE-ID ::= 149

id-UESliceMaximumBitRateList ProtocolIE-ID ::= 150

id-PDUSession-PairID ProtocolIE-ID ::= 151

id-SurvivalTime ProtocolIE-ID ::= 152

id-UDC-Parameters ProtocolIE-ID ::= 153

id-SCGActivationStatus ProtocolIE-ID ::= 154

id-GNB-CU-CP-MBS-E1AP-ID ProtocolIE-ID ::= 155

id-GNB-CU-UP-MBS-E1AP-ID ProtocolIE-ID ::= 156

id-GlobalMBSSessionID ProtocolIE-ID ::= 157

id-BCBearerContextToSetup ProtocolIE-ID ::= 158

id-BCBearerContextToSetupResponse ProtocolIE-ID ::= 159

id-BCBearerContextToModify ProtocolIE-ID ::= 160

id-BCBearerContextToModifyResponse ProtocolIE-ID ::= 161

id-BCBearerContextToModifyRequired ProtocolIE-ID ::= 162

id-BCBearerContextToModifyConfirm ProtocolIE-ID ::= 163

id-MCBearerContextToSetup ProtocolIE-ID ::= 164

id-MCBearerContextToSetupResponse ProtocolIE-ID ::= 165

id-MCBearerContextToModify ProtocolIE-ID ::= 166

id-MCBearerContextToModifyResponse ProtocolIE-ID ::= 167

id-MCBearerContextToModifyRequired ProtocolIE-ID ::= 168

id-MCBearerContextToModifyConfirm ProtocolIE-ID ::= 169

id-MBSMulticastF1UContextDescriptor ProtocolIE-ID ::= 170

id-gNB-CU-UP-MBS-Support-Info ProtocolIE-ID ::= 171

id-SecurityIndication ProtocolIE-ID ::= 172

id-SecurityResult ProtocolIE-ID ::= 173

id-SDTContinueROHC ProtocolIE-ID ::= 174

id-SDTindicatorSetup ProtocolIE-ID ::= 175

id-SDTindicatorMod ProtocolIE-ID ::= 176

id-DiscardTimerExtended ProtocolIE-ID ::= 177

id-ManagementBasedMDTPLMNModificationList ProtocolIE-ID ::= 178

id-MCForwardingResourceRequest ProtocolIE-ID ::= 900 -- to be assigned

id-MCForwardingResourceIndication ProtocolIE-ID ::= 901 -- to be assigned

id-MCForwardingResourceResponse ProtocolIE-ID ::= 902 -- to be assigned

id-MCForwardingResourceRelease ProtocolIE-ID ::= 903 -- to be assigned

id-MCForwardingResourceReleaseIndication ProtocolIE-ID ::= 904 -- to be assigned

END

-- ASN1STOP

9.4.8 Container Definitions

-- ASN1START

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

--

-- Container definitions

--

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

E1AP-Containers {

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

ngran-access (22) modules (3) e1ap (5) version1 (1) e1ap-Containers (5) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

--

-- IE parameter types from other modules.

--

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

IMPORTS

maxPrivateIEs,

maxProtocolExtensions,

maxProtocolIEs,

Criticality,

Presence,

PrivateIE-ID,

ProtocolIE-ID

FROM E1AP-CommonDataTypes;

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

--

-- Class Definition for Protocol IEs

--

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

E1AP-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 Extensions

--

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

E1AP-PROTOCOL-EXTENSION ::= CLASS {

&id ProtocolIE-ID UNIQUE,

&criticality Criticality,

&Extension,

&presence Presence

}

WITH SYNTAX {

ID &id

CRITICALITY &criticality

EXTENSION &Extension

PRESENCE &presence

}

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

--

-- Class Definition for Private IEs

--

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

E1AP-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 { E1AP-PROTOCOL-IES : IEsSetParam} ::=

SEQUENCE (SIZE (0..maxProtocolIEs)) OF

ProtocolIE-Field {{IEsSetParam}}

ProtocolIE-SingleContainer { E1AP-PROTOCOL-IES : IEsSetParam} ::=

ProtocolIE-Field {{IEsSetParam}}

ProtocolIE-Field { E1AP-PROTOCOL-IES : IEsSetParam} ::= SEQUENCE {

id E1AP-PROTOCOL-IES.&id ({IEsSetParam}),

criticality E1AP-PROTOCOL-IES.&criticality ({IEsSetParam}{@id}),

value E1AP-PROTOCOL-IES.&Value ({IEsSetParam}{@id})

}

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

--

-- Container Lists for Protocol IE Containers

--

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

ProtocolIE-ContainerList {INTEGER : lowerBound, INTEGER : upperBound, E1AP-PROTOCOL-IES : IEsSetParam} ::=

SEQUENCE (SIZE (lowerBound..upperBound)) OF

ProtocolIE-Container {{IEsSetParam}}

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

--

-- Container for Protocol Extensions

--

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

ProtocolExtensionContainer { E1AP-PROTOCOL-EXTENSION : ExtensionSetParam} ::=

SEQUENCE (SIZE (1..maxProtocolExtensions)) OF

ProtocolExtensionField {{ExtensionSetParam}}

ProtocolExtensionField { E1AP-PROTOCOL-EXTENSION : ExtensionSetParam} ::= SEQUENCE {

id E1AP-PROTOCOL-EXTENSION.&id ({ExtensionSetParam}),

criticality E1AP-PROTOCOL-EXTENSION.&criticality ({ExtensionSetParam}{@id}),

extensionValue E1AP-PROTOCOL-EXTENSION.&Extension ({ExtensionSetParam}{@id})

}

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

--

-- Container for Private IEs

--

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

PrivateIE-Container { E1AP-PRIVATE-IES : IEsSetParam} ::=

SEQUENCE (SIZE (1..maxPrivateIEs)) OF

PrivateIE-Field {{IEsSetParam}}

PrivateIE-Field { E1AP-PRIVATE-IES : IEsSetParam} ::= SEQUENCE {

id E1AP-PRIVATE-IES.&id ({IEsSetParam}),

criticality E1AP-PRIVATE-IES.&criticality ({IEsSetParam}{@id}),

value E1AP-PRIVATE-IES.&Value ({IEsSetParam}{@id})

}

END

-- ASN1STOP