**3GPP TSG-RAN WG3 Meeting #115-eR3-222958**

**Online, 21 February – 03 March 2022**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **38.423** | **CR** | **0720** | **rev** | **3** | **Current version:** | **16.8.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **x** | Core Network |  |

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| ***Title:*** | RA-SDT BLCR to TS 38.423 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | R3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_SmallData\_INACTIVE-Core | | | | |  | ***Date:*** | | | 2022-03-04 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | B |  | | | | | ***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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Feature support for RACH-based SDT. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | RAN3#115-e:   * Update Partial UE Context Transfer procedure and IEs. * Add the indicator for termination of SDT. * Update the values for SDT request indicator. * ASN.1 changes and etc.   RAN3#114bis-e:   * Update SDT indicator. * Add a RRC container in the RRC TRANSFER message for SDT SRB transfer. * Introduce new procedure for partial context fetch, details are FFS.   RAN3#114-e:   * Introduce the new *SDT Support Request* IE in the RETRIEVE UE CONTEXT REQUEST message. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Small Data Tranmission cannot be handled between network nodes. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 3.2, 8.1, 8.2.4.2, 8.3.9.2, 9.1.1.8, 9.1.1.xx (new), 9.1.1.xy (new), 9.1.1.yy (new), 9.1.2.20, 9.2.2.x (new), 9.2.3.y (new), 9.3.4, 9.3.5, 9.3.7 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **x** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **x** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Rev 3: merge the agreed TP R3-222775.  Rev 2: merge the agreed TP R3-221205.  Rev 1: rebase on v16.8.0.  Rev 0: merge the agreed TP R3-216081. | | | | | | | | |

**------------------------------------------------Start of the change--------------------------------------------------**

## 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

5QI 5G QoS Identifier

AMF Access and Mobility Management Function

CAG Closed Access Group

CGI Cell Global Identifier

CHO Conditional Handover

CP Control Plane

DAPS Dual Active Protocol Stack

DL Downlink

EN-DC E-UTRA-NR Dual Connectivity

E-RAB E-UTRAN Radio Access Bearer

GUAMI Globally Unique AMF Identifier

IAB Integrated Access and Backhaul

IMEISV International Mobile station Equipment Identity and Software Version number

MCG Master Cell Group

M-NG-RAN node Master NG-RAN node

NGAP NG Application Protocol

NID Network Identifier

NPN Non-Public Network

NSSAI Network Slice Selection Assistance Information

PNI-NPN Public Network Integrated Non-Public Network RANAC RAN Area Code

RSN Redundancy Sequence Number

SCG Secondary Cell Group

SCTP Stream Control Transmission Protocol

SNPN Stand-alone Non-Public Network

S-NG-RAN node Secondary NG-RAN node

S-NSSAI Single Network Slice Selection Assistance Information

SUL Supplementary Uplink

SDT Small Data Transmission

TAC Tracking Area Code

TAI Tracking Area Identity

UL Uplink

UPF User Plane Function

V2X Vehicle-to-Everything

**------------------------------------------------Next change--------------------------------------------------**

# 8 XnAP procedures

## 8.1 Elementary procedures

In the following tables, all EPs are divided into Class 1 and Class 2 EPs.

Table 8.1-1: Class 1 Elementary Procedures

| Elementary Procedure | Initiating Message | Successful Outcome | Unsuccessful Outcome | |
| --- | --- | --- | --- | --- |
| Response message | Response message | |
| Handover Preparation | HANDOVER REQUEST | HANDOVER REQUEST ACKNOWLEDGE | HANDOVER PREPARATION FAILURE |
| Retrieve UE Context | RETRIEVE UE CONTEXT REQUEST | RETRIEVE UE CONTEXT RESPONSE | RETRIEVE UE CONTEXT FAILURE |
| S-NG-RAN node Addition Preparation | S-NODE ADDITION REQUEST | S-NODE ADDITION REQUEST ACKNOWLEDGE | S-NODE ADDITION REQUEST REJECT |
| M-NG-RAN node initiated S-NG-RAN node Modification Preparation | S-NODE MODIFICATION REQUEST | S-NODE MODIFICATION REQUEST ACKNOWLEDGE | S-NODE MODIFICATION REQUEST REJECT |
| S-NG-RAN node initiated S-NG-RAN node Modification | S-NODE MODIFICATION REQUIRED | S-NODE MODIFICATION CONFIRM | S-NODE MODIFICATION REFUSE |
| S-NG-RAN node initiated S-NG-RAN node CHANGE | S-NODE CHANGE REQUIRED | S-NODE CHANGE CONFIRM | S-NODE CHANGE REFUSE |
| M-NG-RAN node initiated S-NG-RAN node Release | S-NODE RELEASE REQUEST | S-NODE RELEASE REQUEST ACKNOWLEDGE | S-NODE RELEASE REJECT |
| S-NG-RAN node initiated S-NG-RAN node Release | S-NODE RELEASE REQUIRED | S-NODE RELEASE CONFIRM |  |
| Xn Setup | XN SETUP REQUEST | XN SETUP RESPONSE | XN SETUP FAILURE |
| NG-RAN node Configuration Update | NG-RAN NODE CONFIGURATION UPDATE | NG-RAN NODE CONFIGURATION UPDATE ACKNOWLEDGE | NG-RAN NODE CONFIGURATION UPDATE FAILURE |
| Cell Activation | CELL ACTIVATION REQUEST | CELL ACTIVATION RESPONSE | CELL ACTIVATION FAILURE |
| Reset | RESET REQUEST | RESET RESPONSE |  |
| Xn Removal | Xn REMOVAL REQUEST | Xn REMOVAL RESPONSE | Xn REMOVAL FAILURE |
| E-UTRA - NR Cell Resource Coordination | E-UTRA - NR CELL RESOURCE COORDINATION REQUEST | E-UTRA - NR CELL RESOURCE COORDINATION RESPONSE |  |
| Resource Status Reporting Initiation | RESOURCE STATUS REQUEST | RESOURCE STATUS RESPONSE | RESOURCE STATUS FAILURE |
| Mobility Settings Change | MOBILITY CHANGE REQUEST | MOBILITY CHANGE ACKNOWLEDGE | MOBILITY CHANGE FAILURE |
| Partial UE Context Transfer | PARTIAL UE CONTEXT TRANSFER | PARTIAL UE CONTEXT TRANSFER ACKNOWLEDGE | PARTIAL UE CONTEXT TRANSFER FAILURE |

### 8.2.4 Retrieve UE Context

#### 8.2.4.1 General

The purpose of the Retrieve UE Context procedure is to either retrieve the UE context from the old NG-RAN node and transfer it to the NG-RAN node where the UE RRC Connection has been requested to be established, or to enable the old NG-RAN node to forward an RRC message to the UE via the new NG-RAN node without context transfer, or to request for small data transmission.

The procedure uses UE-associated signalling.

#### 8.2.4.2 Successful Operation



Figure 8.2.4.2-1: Retrieve UE Context, successful operation

The new NG-RAN node initiates the procedure by sending the RETRIEVE UE CONTEXT REQUEST message to the old NG-RAN node.

If the old NG-RAN node is able to identify the UE context by means of the UE Context ID, and to successfully verify the UE by means of the integrity protection contained in the RETRIEVE UE CONTEXT REQUEST message, and decides to provide the UE context to the new NG-RAN node, it shall respond to the new NG-RAN node with the RETRIEVE UE CONTEXT RESPONSE message.

If the *Index to RAT/Frequency Selection Priority* IE is contained in the RETRIEVE UE CONTEXT RESPONSE message, the new NG-RAN node shall store this information and use it as defined in TS 23.501 [7].

If the *Location Reporting Information* IE is included in the RETRIEVE UE CONTEXT RESPONSE message, then the new NG-RAN node should initiate the requested location reporting functionality as defined in TS 38.413 [5].

If the *Trace Activation* IE is included in the RETRIEVE UE CONTEXT RESPONSE message which includes

- the *MDT Activation* IE set to "Immediate MDT and Trace", then the target NG-RAN node shall if supported, initiate the requested trace session and MDT session as described in TS 32.422 [23].

- the *MDT Activation* IE set to "Immediate MDT Only" or "Logged MDT only", the target NG-RAN node shall, if supported, initiate the requested MDT session as described in TS 32.422 [23] and the target NG-RAN node shall ignore the *Interfaces To Trace* IE, and the *Trace Depth* IE.

- the *MDT Location Information* IE, within the *MDT Configuration* IE, the target NG-RAN node shall, if supported, store this information and take it into account in the requested MDT session.

- the *MDT Activation* IE set to "Immediate MDT Only" or "Logged MDT only", and if the *Signalling based MDT PLMN List* IE is included in the *MDT Configuration* IE, the target NG-RAN node may use it to propagate the MDT Configuration as described in TS 37.320 [43].

- the *Bluetooth Measurement Configuration* IE, within the *MDT Configuration* IE, the target NG-RAN node shall, if supported, take it into account for MDT Configuration as described in TS 37.320 [43].

- the *WLAN Measurement Configuration* IE, within the *MDT Configuration* IE, the target NG-RAN node shall, if supported, take it into account for MDT Configuration as described in TS 37.320 [43].

- the *Sensor Measurement Configuration* IE, within the *MDT Configuration* IE, take it into account for MDT Configuration as described in TS 37.320 [43].

- the *MDT Configuration* IE and if the target NG-RAN Node is a gNB at least *the MDT Configuration-NR* IE shall be present, while if the target NG-RAN Node is an ng-eNB at least the *MDT Configuration-EUTRA* IE shall be present.

For each QoS flow in the RETRIEVE UE CONTEXT RESPONSE message, if the *QoS Monitoring Request* IE is included in the *QoS Flow Level QoS Parameters* IE in the *PDU Session Resources To Be Setup List* IE, the new NG-RAN node shall store this information, and, if supported, perform delay measurement and QoS monitoring, as specified in TS 23.501 [7]. If the *QoS Monitoring Reporting Frequency* IE is included in the *QoS Flow Level QoS Parameters* IE in the *PDU Session Resources To Be Setup List* IE, the new NG-RAN node shall store this information, and, if supported, use it for RAN part delay reporting.

If the *5GC Mobility Restriction List Container* IE is included in the RETRIEVE UE CONTEXT RESPONSE message, the new NG-RAN node shall, if supported, store this information in the UE context and use it as specified in TS 38.300 [9].

V2X:

- If the *NR V2X Services Authorized* IE is included in the RETRIEVE UE CONTEXT RESPONSE message and it contains one or more IEs set to "authorized", the new NG-RAN node shall, if supported, consider that the UE is authorized for the relevant service(s).

- If the *LTE V2X Services Authorized* IE is included in the RETRIEVE UE CONTEXT RESPONSE message and it contains one or more IEs set to "authorized", the new NG-RAN node shall, if supported, consider that the UE is authorized for the relevant service(s).

- If the *NR UE Sidelink Aggregate Maximum Bit Rate* IE is included in the *UE Context Information Retrieve UE Context Response* IE in the RETRIEVE UE CONTEXT RESPONSE message, the new NG-RAN node shall, if supported, use the received value for the concerned UE’s sidelink communication in network scheduled mode for NR V2X services.

- If the *LTE UE Sidelink Aggregate Maximum Bit Rate* IE is included in the *UE Context Information Retrieve UE Context Response* IE in the RETRIEVE UE CONTEXT RESPONSE message, the new NG-RAN node shall, if supported, use the received value for the concerned UE’s sidelink communication in network scheduled mode for LTE V2X services.

If the *PC5 QoS Parameters* IE is included in theRETRIEVE UE CONTEXT RESPONSE message, the target NG-RAN node shall, if supported, use it as defined in TS 23.287[38].

In case of RRC Re-establishment, the old NG-RAN may include the *UE History Information* IE or the *UE History Information from the UE* IE in the RETRIEVE UE CONTEXT RESPONSE message. Upon reception of the *UE History Information* IE or the *UE History Information from the UE* IE in the RETRIEVE UE CONTEXT RESPONSE message, the new NG-RAN node shall, if supported, store the collected information and use it for future handover preparations.

If the *UE Radio Capability ID* IE is contained in the RETRIEVE UE CONTEXT RESPONSE message, the new NG- RAN node shall, if supported store this information in the UE context and use it as defined in TS 23.501 [7] and TS 23.502 [13].

If the *SDT Support Request* IE is included in the RETRIEVE UE CONTEXT REQUEST message, the old NG-RAN node shall, if supported, consider that the UE has requested for SDT as defined in TS 38.300 [6].

8.2.4.3 Unsuccessful Operation

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**Figure 8.2.4.3-1: Retrieve UE Context, unsuccessful operation**

If the old NG-RAN node is not able to identify the UE context by means of the UE Context ID, or if the integrity protection contained in the RETRIEVE UE CONTEXT REQUEST message is not valid, or, if it decides not to provide the UE context to the new NG-RAN node, it shall respond to the new NG-RAN node with the RETRIEVE UE CONTEXT FAILURE message.

If the old NG-RAN node decides to keep the UE context in case of periodic RNAU or in case of RACH based SDT, it shall store the *Allocated C-RNTI* IE and the *Access PCI* IE in the *UE Context ID* IE, as described in TS 38.300 [9].

If the *Old NG-RAN node to New NG-RAN node Resume Container* IE is included in the RETRIEVE UE CONTEXT FAILURE message, the new NG-RAN node should transparently forward the content of this IE to the UE as described in TS 38.300 [9].

**------------------------------------------------Next change--------------------------------------------------**

### 8.2.x Partial UE Context Transfer

#### 8.2.x.1 General

The purpose of the Partial UE Context Transfer procedure is to transfer part of the UE context from the old NG-RAN node to the new NG-RAN node.

The procedure uses UE-associated signalling.

#### 8.2.x.2 Successful Operation



Figure 8.2.x.2-1: Partial UE Context Transfer, successful operation

The old NG-RAN node initiates the procedure by sending the PARTIAL UE CONTEXT RETRIEVE REQUEST message to the new NG-RAN node.

If the new NG-RAN node is able to accept the SDT transaction without anchor relocation, it shall, if supported, respond to the old NG-RAN node with the PARTIAL UE CONTEXT TRANSFER ACKNOWLEDGE message.

If the *Partial UE Context Information for SDT* IEis included in the PARTIAL UE CONTEXT TRANSFER message, the new NG-RAN node may include data forwarding related information in the *SDT Data Forwarding DRB List* IE in the PARTIAL UE CONTEXT TRANSFER ACKNOWLEDGE message.

#### 8.2.x.3 Unsuccessful Operation

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**Figure 8.2.x.3-1: Partial UE Context Transfer, unsuccessful operation**

If the new NG-RAN is not able to accept the SDT transaction without anchor relocation, it shall respond to the old NG-RAN node with the PARTIAL UE CONTEXT TRANSFER FAILURE message.

#### 8.2.x.4 Abnormal Condition

Void.

**------------------------------------------------Next change--------------------------------------------------**

### 8.2.x Retrieve UE Context Confirm

#### 8.2.x.1 General

The Retrieve UE Context Confirm procedure is used by the new NG-RAN node to inform the old NG-RAN node whether the S-NG-RAN node associated with the old NG-RAN node for the UE that was indicated during UE context retrieval is kept or not by the new NG-RAN node during RRC resumption.

In case of RACH based SDT, the Retrieve UE Context Confirm procedure is also used to request the termination of SDT session from the new NG-RAN node to the old NG-RAN node.The procedure uses UE-associated signalling.

#### 8.2.x.2 Successful Operation



Figure 8.2.3.2-1: Retrieve UE Context Confirm, successful operation

The new NG-RAN node initiates the procedure by sending the RETRIEVE UE CONTEXT CONFIRM message to the old NG-RAN node.

Upon reception of the RETRIEVE UE CONTEXT CONFIRM message, the old NG-RAN node shall release the resources related to the UE-associated signalling connection between the old NG-RAN node and the S-NG-RAN node, as specified in TS 37.340 [8].

If the *UE Context Kept Indicator* IE is included and set to "True", the old NG-RAN node shall consider that the S-NG-RAN node was kept by the new NG-RAN node and use this information as specified in TS 37.340 [8].

If the old NG-RAN node receives the *SDT Termination Request* IE in the RETRIEVE UE CONTEXT CONFIRM message, the old NG-RAN node shall, if supported, consider that the termination of the ongoing SDT transaction is requested from the new NG-RAN node for this UE and act as specified in TS 38.300 [9].

#### 8.2.x.3 Unsuccessful Operation

Not applicable.

#### 8.2.x.4 Abnormal Conditions

If the RETRIEVE UE CONTEXT CONFIRM message refers to a context that does not exist, the old NG-RAN node shall ignore the message.

**------------------------------------------------Next change--------------------------------------------------**

### 8.3.9 RRC Transfer

#### 8.3.9.1 General

The purpose of the RRC Transfer procedure is to deliver a PDCP-C PDU encapsulating an LTE RRC message or NR RRC message to the S-NG-RAN-NODE that it may then be forwarded to the UE, or from the S-NG-RAN-NODE, if it was received from the UE. The delivery status may also be provided from the S-NG-RAN-NODE to the M-NG-RAN-NODE using the RRC Transfer.

The procedure is also used to enable transfer one of the following messages from the M-NG-RAN-NODE to the S-NG-RAN-NODE, when received from the UE:

- the NR RRC message container with the NR measurements;

- the E-UTRA RRC message container with the E-UTRA measurements;

- the NR RRC message container with the NR failure information;

- the NR RRC message container with the *RRCReconfigurationComplete* message;

- the NR RRC message container with the UE assistance information.

This procedure is also used to deliver a PDCP-C PDU encapsulating a NR RRC message between the new NG-RAN node and the old NG-RAN node.

The procedure uses UE-associated signalling.

#### 8.3.9.2 Successful Operation



Figure 8.3.9.2-1: RRC Transfer procedure for dual connectivity, successful operation.



Figure 8.3.9.2-x: RRC Transfer procedure for SDT, successful operation.

**Dual Connectivity**

The M-NG-RAN-NODE initiates the procedure by sending the RRC TRANSFER message to the S-NG-RAN-NODE or the S-NG-RAN-NODE initiates the procedure by sending the RRC TRANSFER message to the M-NG-RAN-NODE.

If the S-NG-RAN-NODE receives an RRC TRANSFER message which does not include the *RRC Container* IE in the *Split SRB* IE, or the RRC Container IE in the NR UE Report IE, or the the *RRC Container* IE in the *Fast MCG Recovery via SRB3 from MN to SN* IE, or the the *RRC Container* IE in the *Fast MCG Recovery via SRB3 from SN to MN* IE, it shall ignore the message. If the S-NG-RAN-NODE receives an RRC TRANSFER message with the *Delivery Status* IE in the *Split SRB* IE, it shall ignore the message. If the S-NG-RAN-NODE receives the *RRC Container* IE in the *Split SRB* IE, it shall deliver the contained PDCP-C PDU encapsulating an RRC message to the UE. If the S-NG-RAN-NODE receives the *RRC Container* IE in the *Fast MCG Recovery via SRB3 from MN to SN* IE, the S-NG-RAN-NODE shall deliver the contained RRC container encapsulating an RRC message to the UE.

If the M-NG-RAN-NODE receives the *Delivery Status* IE in the *Split SRB* IE, the M-NG-RAN-NODE shall consider RRC messages up to the indicated NR PDCP SN as having been successfully delivered to UE by S-NG-RAN-NODE. If the M-NG-RAN-NODE receives the *RRC Container* IE in the *Fast MCG Recovery via SRB3 from SN to MN* IE, the M-NG-RAN-NODE shall consider MCG link failure detected at the UE as specified in TS 37.340 [8].

**SDT**

The new NG-RAN-NODE initiates the procedure by sending the RRC TRANSFER message to the old NG-RAN-NODE or the old NG-RAN-NODE initiates the procedure by sending the RRC TRANSFER message to the new NG-RAN-NODE.

If the new NG-RAN node receives the *RRC Container* IE in the *SDT SRB between New NG-RAN node and Old NG-RAN node* IE, it shall deliver the contained PDCP-C PDU encapsulating an RRC message to the UE. If the old NG-RAN-NODE receives the *RRC Container* IE in the *SDT SRB between New NG-RAN node and Old NG-RAN node* IE, it shall consider the contained PDCP-C PDU encapsulating an RRC message from the UE.

#### 8.3.9.3 Unsuccessful Operation

Not applicable.

#### 8.3.9.4 Abnormal Conditions

In case of the split SRBs, the receiving node may ignore the message, if the M-NG-RAN-NODE has not indicated possibility of RRC transfer at the bearer setup.

**------------------------------------------------Next change--------------------------------------------------**

#### 9.1.1.8 RETRIEVE UE CONTEXT REQUEST

This message is sent by the new NG-RAN node to request the old NG-RAN node to transfer the UE Context to the new NG-RAN.

Direction: new NG-RAN node → old NG-RAN node.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **IE/Group Name** | **Presence** | **Range** | **IE type and reference** | **Semantics description** | **Criticality** | **Assigned Criticality** |
| Message Type | M |  | 9.2.3.1 |  | YES | reject |
| New NG-RAN node UE XnAP ID reference | M |  | NG-RAN node UE XnAP ID 9.2.3.16 | Allocated at the new NG-RAN node | YES | reject |
| UE Context ID | M |  | 9.2.3.40 |  | YES | reject |
| Integrity protection | M |  | BIT STRING (SIZE (16)) | **RRC Resume:**  *ResumeMAC-I* either contained in the *RRC ResumeRequest* or the *RRCResumeRequest1* message as defined in TS 38.331 [10])  or the *ShortResumeMAC-I* in the *RRCConnection ResumeRequest* message as defined in TS 36.331 [14])  **RRC Reestablishment:**  *ShortMAC-I* contained in the *RRCReestablishmentRequest* as defined in TS 38.331 [10])  or the *ShortMAC-I* in the *RRCConnection ReestablishmentRequest* message as defined in TS 36.331 [14]).  **RRC Resume for UP CIoT Optimization:**  *ShortResumeMAC-I* in the *RRCConnection ResumeRequest* messageor *RRCConnection ResumeRequest-NB* messageas defined in TS 36.331 [14]. | YES | reject |
| New Cell Identifier | M |  | NG-RAN Cell Identity  9.2.2.9 | **RRC Resume:**  Corresponds to the *targetCellIdentity* within the *VarResumeMAC-Input* as specified in TS 38.331 [10] or the *cellIdentity* within the *VarShortINACTIVE-MAC-Input* as specified in TS 36.331 [14].  **RRC Reestablishment:**  Corresponds to the *targetCellIdentity* within the *VarShortMAC-Input* as specified in TS 38.331 [10] or the *cellIdentity* within the *VarShortMAC-Input* as specified in TS 36.331 [14].  **RRC Resume for UP CIoT Optimization:**  Corresponds to the *cellIdentity* within the *VarShortResumeMAC-Input* or *VarShortResumeMAC-Input-NB* as specified in TS 36.331 [14]. | YES | reject |
| RRC Resume Cause | O |  | 9.2.3.61 | In case of RNA Update, contains the cause value provided by the UE in the *RRCResumeRequest* or the *RRCResumeRequest1* message, as defined in TS 38.331 [10],  or in the *RRCConnection ResumeRequest* message, as defined in TS 36.331 [14]. | YES | ignore |
| SDT Support Request | O |  | 9.2.3.x |  | YES | ignore |

**--------------------------------------------------Next change-----------------------------------------------------**

#### 9.1.1.xx PARTIAL UE CONTEXT TRANSFER

This message is sent by the old NG-RAN node to transfer part of the UE Context to the new NG-RAN node.

Direction: old NG-RAN node → new NG-RAN node.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| Message Type | M |  | 9.2.3.1 |  | YES | reject |
| New NG-RAN node UE XnAP ID reference | M |  | NG-RAN node UE XnAP ID 9.2.3.16 | Allocated at the new NG-RAN node. | YES | reject |
| Old NG-RAN node UE XnAP ID reference | M |  | NG-RAN node UE XnAP ID 9.2.3.16 | Allocated at the old NG-RAN node. | YES | ignore |
| Partial UE Context Information for SDT | O |  | 9.2.3.y |  | YES | ignore |

#### 9.1.1.xy PARTIAL UE CONTEXT TRANSFER ACKNOWLEDGE

This message is sent by the new NG-RAN node to acknowledge the transferring part of the UE context from the old NG-RAN node. This message is also used to provide data forwarding related information for NR SDT.

Direction: new NG-RAN node → old NG-RAN node.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| Message Type | M |  | 9.2.3.1 |  | YES | reject |
| New NG-RAN node UE XnAP ID reference | M |  | NG-RAN node UE XnAP ID 9.2.3.16 | Allocated at the new NG-RAN node | YES | ignore |
| Old NG-RAN node UE XnAP ID reference | M |  | NG-RAN node UE XnAP ID 9.2.3.16 | Allocated at the old NG-RAN node | YES | ignore |
| **SDT Data Forwarding DRB List** |  | *0..1* |  |  | YES | ignore |
| **>SDT Data Forwarding DRB Item** |  | *1..<maxnoofDRBs>* |  |  | – |  |
| >>DRB ID | M |  | 9.2.3.33 |  | – |  |
| >>DL TNL Information | O |  | UP Transport Layer Information 9.2.3.30 |  | – |  |

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofDRBs | Maximum no. of DRBs. Value is 32. |

9.1.1.yy PARTIAL UE CONTEXT TRANSFER FAILURE

This message is sent by the new NG-RAN node to inform the old NG-RAN node that the Partial UE Context Transfer procedure has failed.

Direction: new NG-RAN node → old NG-RAN node.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **IE/Group Name** | **Presence** | **Range** | **IE type and reference** | **Semantics description** | **Criticality** | **Assigned Criticality** |
| Message Type | M |  | 9.2.3.1 |  | YES | reject |
| New NG-RAN node UE XnAP ID reference | M |  | NG-RAN node UE XnAP ID 9.2.3.16 | Allocated at the new NG-RAN node | YES | ignore |
| Old NG-RAN node UE XnAP ID reference | M |  | NG-RAN node UE XnAP ID 9.2.3.16 | Allocated at the old NG-RAN node. | YES | ignore |
| Cause | M |  | 9.2.3.2 |  | YES | ignore |
| Criticality Diagnostics | O |  | 9.2.3.3 |  | YES | ignore |

**--------------------------------------------------Next change-----------------------------------------------------**

#### 9.1.1.y RETRIEVE UE CONTEXT CONFIRM

This message is sent by the new NG-RAN node to the old NG-RAN node to inform the old NG-RAN node whether the S-NG-RAN node associated with the old NG-RAN node for the UE that was indicated during UE context retrieval is kept or not by the new NG-RAN node during RRC resumption.

In case of RACH based SDT, the Retrieve UE Context Confirm procedure is also used to request termination of SDT session from the new NG-RAN node to the old NG-RAN node.

Direction: new NG-RAN node → old NG-RAN node.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| Message Type | M |  | 9.2.3.1 |  | YES | reject |
| Old NG-RAN node UE XnAP ID reference | M |  | NG-RAN node UE XnAP ID 9.2.3.16 | Allocated at the old NG-RAN node | YES | ignore |
| New NG-RAN node UE XnAP ID reference | M |  | NG-RAN node UE XnAP ID 9.2.3.16 | Allocated at the new NG-RAN node | YES | ignore |
| UE Context Kept Indicator | O |  | 9.2.3.68 |  | YES | ignore |
| SDT Termination Request | O |  | ENUMERATED (radio link problem, normal, …) | Indicate the reason of request for termination of the ongoing SDT. | YES | ignore |

**--------------------------------------------------Next change-----------------------------------------------------**

#### 9.1.2.20 RRC TRANSFER

This message is sent by the M-NG-RAN-NODE to the S-NG-RAN-NODE to transfer an RRC message or from the S-NG-RAN-NODE to the M-NG-RAN-NODE to report the DL RRC message delivery status.

This message is also sent by the new NG-RAN-NODE to the old NG-RAN-NODE or from the old NG-RAN-NODE to the new NG-RAN-NODE to transfer an RRC message containing the SDT SRB.

Direction: M-NG-RAN node → S-NG-RAN node or S-NG-RAN node → M-NG-RAN node (Dual Connectivity).

Direction: new NG-RAN node → old NG-RAN node or old NG-RAN node → new NG-RAN node (SDT).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| Message Type | M |  | 9.2.3.1 |  | YES | reject |
| M-NG-RAN node UE XnAP ID | M |  | NG-RAN node UE XnAP ID  9.2.3.16 | Allocated at the M-NG-RAN node | YES | reject |
| S-NG-RAN node UE XnAP ID | M |  | NG-RAN node UE XnAP ID  9.2.3.16 | Allocated at the S-NG-RAN node | YES | reject |
| **Split SRB** |  | *0..1* |  |  | YES | reject |
| >RRC Container | O |  | OCTET STRING | Contains a PDCP-C PDU encapsulating an RRC message as defined in subclause 6.2.1 of TS 38.331 [10] or TS 36.331 [14] and ciphered with the key of the M-NG-RAN node | – |  |
| >SRB Type | M |  | ENUMERATED (srb1, srb2, ...) | The SRB type to be used | – |  |
| >Delivery Status | O |  | 9.2.3.45 | DL RRC delivery status of split SRB | – |  |
| **UE Report** |  | *0..1* |  |  | YES | reject |
| >RRC Container | M |  | OCTET STRING | For NGEN-DC and NR-DC, includes the *UL-DCCH-Message* as defined in subclause 6.2.1 of TS 38.331 [10] containing the *MeasurementReport* message or the *RRCReconfigurationComplete message* or the *FailureInformation* message or the *UEAssistanceInformation* message.  For NE-DC, includes the *UL-DCCH-Message* as defined in subclause 6.2.1 of TS 36.331 [14] containing the *MeasurementReport* message. | – |  |
| **Fast MCG Recovery via SRB3 from SN to MN** |  | *0..1* |  |  | YES | ignore |
| >RRC Container | M |  | OCTET STRING | For NR-DC, includes the *UL-DCCH-Message* as defined in subclause 6.2.1 of TS 38.331 [10] containing the *MCGFailureInformation*, message.  For NGEN-DC, includes the *UL-DCCH-Message* as defined in subclause 6.2.1 of TS 36.331 [14] containing the *MCGFailureInformation* message. | – |  |
| **Fast MCG Recovery via SRB3 from MN to SN** |  | *0..1* |  |  | YES | ignore |
| >RRC Container | M |  | OCTET STRING | For NR-DC, includes the *DL-DCCH-Message* as defined in subclause 6.2.1 of TS 38.331 [10] containing the *RRCReconfiguration* message, or the *RRCRelease* message, or the *MobilityFromNRCommand message*.  For NGEN-DC, includes the *DL-DCCH-Message* as defined in subclause 6.2.1 of TS 36.331 [14] containing the *RRCConnectionReconfiguration* message, or the *RRCConnectionRelease* message, or the *MobilityFromEUTRACommand message*. | – |  |
| SDT SRB between New NG-RAN node and Old NG-RAN node |  | *0..1* |  |  | YES | ignore |
| >RRC Container | M |  | OCTET STRING | Contains a PDCP-C PDU encapsulating an RRC message as defined in subclause 6.2.1 of TS 38.331 [10]. | – |  |

**--------------------------------------------------Next change-----------------------------------------------------**

9.2.3.x SDT Support Request

This IE indicates that the UE requested for SDT and may include additional assistance information.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **IE/Group Name** | **Presence** | **Range** | **IE Type and Reference** | **Semantics Description** |
| SDT Indicator | M |  | ENUMERATED (true,…) |  |
| SDT assistant information | O |  | ENUMERATED (single packet, multiple packets, …) | “Single packet” indicates no subsequent SDT transmission is expected;  “Multiple packets” indicates subsequent SDT transmission is expected. |

**--------------------------------------------------Next change-----------------------------------------------------**

#### 9.2.3.y Partial UE Context Information for SDT

This IE contains the UE context information within the PARTIAL UE CONTEXT TRANSFER message for NR SDT.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| DRBs To Be Setup List |  | *1* |  |  | YES | ignore |
| **>DRBs to Be Setup Item** |  | *1 .. <maxnoofDRBs>* |  |  | – |  |
| >>DRB ID | M |  | 9.2.3.33 |  | – |  |
| >>UL TNL Information | M |  | UP Transport Parameters 9.2.3. 76 |  | – |  |
| >>RLC Bearer Configuration | M |  | OCTET STRING | RLC-BearerConfig IE defined in subclause 6.3.2 of TS 38.331 | – |  |
| >>DRB QoS | M |  | QoS Flow Level QoS Parameters  9.2.3.5 |  | – |  |
| >>S-NSSAI | M |  | 9.2.3.21 |  | – |  |
| >>RLC Mode | M |  | 9.2.3.28 |  | – |  |
| >>PDCP SN Length | M |  | 9.2.3.63 |  | – |  |
| **SRBs to Be Setup List** |  | *0..1* |  |  | YES | ignore |
| **>SRBs to Be Setup Item** |  | *1 .. <maxnoofSRBs>* |  |  | – |  |
| >>SRB ID | M |  | 9.2.3.z | In this version of the specification, values "0", "3", and "4" shall not be set by the sender and ignored by the receiver. | – |  |
| >>RLC Bearer Configuration | M |  | OCTET STRING | *RLC-BearerConfig* IE defined in subclause 6.3.2 of TS 38.331 [10]. | –- |  |

|  |  |
| --- | --- |
| maxnoofDRBs | Maximum no. of DRB allowed towards one UE, the maximum value is 32. |
| maxnoofSRBs | Maximum no. of SRB allowed towards one UE, the maximum value is 5. |

#### 9.2.3.z SRB ID

This IE uniquely identifies a SRB for a UE.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| SRB ID | M |  | INTEGER (0..4, ...) | Corresponds to the identities of SRB as defined in TS 38.331 [8]. |

### 9.3.3 Elementary Procedure Definitions

-- ASN1START

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

--

-- Elementary Procedure definitions

--

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

XnAP-PDU-Descriptions {

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

ngran-access (22) modules (3) xnap (2) version1 (1) xnap-PDU-Descriptions (0) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

--

-- IE parameter types from other modules.

--

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

IMPORTS

Criticality,

ProcedureCode

FROM XnAP-CommonDataTypes

HandoverRequest,

HandoverRequestAcknowledge,

HandoverPreparationFailure,

SNStatusTransfer,

UEContextRelease,

HandoverCancel,

NotificationControlIndication,

RANPaging,

RetrieveUEContextRequest,

RetrieveUEContextResponse,

RetrieveUEContextFailure,

XnUAddressIndication,

SecondaryRATDataUsageReport,

SNodeAdditionRequest,

SNodeAdditionRequestAcknowledge,

SNodeAdditionRequestReject,

SNodeReconfigurationComplete,

SNodeModificationRequest,

SNodeModificationRequestAcknowledge,

SNodeModificationRequestReject,

SNodeModificationRequired,

SNodeModificationConfirm,

SNodeModificationRefuse,

SNodeReleaseRequest,

SNodeReleaseRequestAcknowledge,

SNodeReleaseReject,

SNodeReleaseRequired,

SNodeReleaseConfirm,

SNodeCounterCheckRequest,

SNodeChangeRequired,

SNodeChangeConfirm,

SNodeChangeRefuse,

RRCTransfer,

XnRemovalRequest,

XnRemovalResponse,

XnRemovalFailure,

XnSetupRequest,

XnSetupResponse,

XnSetupFailure,

NGRANNodeConfigurationUpdate,

NGRANNodeConfigurationUpdateAcknowledge,

NGRANNodeConfigurationUpdateFailure,

E-UTRA-NR-CellResourceCoordinationRequest,

E-UTRA-NR-CellResourceCoordinationResponse,

ActivityNotification,

CellActivationRequest,

CellActivationResponse,

CellActivationFailure,

ResetRequest,

ResetResponse,

ErrorIndication,

PrivateMessage,

DeactivateTrace,

TraceStart,

HandoverSuccess,

ConditionalHandoverCancel,

EarlyStatusTransfer,

FailureIndication,

HandoverReport,

ResourceStatusRequest,

ResourceStatusResponse,

ResourceStatusFailure,

ResourceStatusUpdate,

MobilityChangeRequest,

MobilityChangeAcknowledge,

MobilityChangeFailure,

AccessAndMobilityIndication,

PartialUEContextTransfer,

PartialUEContextTransferAcknowledge,

PartialUEContextTransferFailure

FROM XnAP-PDU-Contents

id-handoverPreparation,

id-sNStatusTransfer,

id-handoverCancel,

id-notificationControl,

id-retrieveUEContext,

id-rANPaging,

id-xnUAddressIndication,

id-uEContextRelease,

id-secondaryRATDataUsageReport,

id-sNGRANnodeAdditionPreparation,

id-sNGRANnodeReconfigurationCompletion,

id-mNGRANnodeinitiatedSNGRANnodeModificationPreparation,

id-sNGRANnodeinitiatedSNGRANnodeModificationPreparation,

id-mNGRANnodeinitiatedSNGRANnodeRelease,

id-sNGRANnodeinitiatedSNGRANnodeRelease,

id-sNGRANnodeCounterCheck,

id-sNGRANnodeChange,

id-activityNotification,

id-rRCTransfer,

id-xnRemoval,

id-xnSetup,

id-nGRANnodeConfigurationUpdate,

id-e-UTRA-NR-CellResourceCoordination,

id-cellActivation,

id-reset,

id-errorIndication,

id-privateMessage,

id-deactivateTrace,

id-traceStart,

id-handoverSuccess,

id-conditionalHandoverCancel,

id-earlyStatusTransfer,

id-failureIndication,

id-handoverReport,

id-resourceStatusReportingInitiation,

id-resourceStatusReporting,

id-mobilitySettingsChange,

id-accessAndMobilityIndication,

id-partialUEContextTransfer

FROM XnAP-Constants;

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

--

-- Interface Elementary Procedure Class

--

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

XNAP-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

--

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

XnAP-PDU ::= CHOICE {

initiatingMessage InitiatingMessage,

successfulOutcome SuccessfulOutcome,

unsuccessfulOutcome UnsuccessfulOutcome,

...

}

InitiatingMessage ::= SEQUENCE {

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

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

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

}

SuccessfulOutcome ::= SEQUENCE {

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

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

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

}

UnsuccessfulOutcome ::= SEQUENCE {

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

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

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

}

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

--

-- Interface Elementary Procedure List

--

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

XNAP-ELEMENTARY-PROCEDURES XNAP-ELEMENTARY-PROCEDURE ::= {

XNAP-ELEMENTARY-PROCEDURES-CLASS-1 |

XNAP-ELEMENTARY-PROCEDURES-CLASS-2 ,

...

}

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

handoverPreparation |

retrieveUEContext |

sNGRANnodeAdditionPreparation |

mNGRANnodeinitiatedSNGRANnodeModificationPreparation |

sNGRANnodeinitiatedSNGRANnodeModificationPreparation |

mNGRANnodeinitiatedSNGRANnodeRelease |

sNGRANnodeinitiatedSNGRANnodeRelease |

sNGRANnodeChange |

xnRemoval |

xnSetup |

nGRANnodeConfigurationUpdate |

e-UTRA-NR-CellResourceCoordination |

cellActivation |

reset |

resourceStatusReportingInitiation |

mobilitySettingsChange |

partialUEContextTransfer,

...

}

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

sNStatusTransfer |

handoverCancel |

rANPaging |

xnUAddressIndication |

uEContextRelease |

sNGRANnodeReconfigurationCompletion |

sNGRANnodeCounterCheck |

rRCTransfer |

errorIndication |

privateMessage |

notificationControl |

activityNotification |

secondaryRATDataUsageReport |

deactivateTrace |

traceStart |

handoverSuccess |

conditionalHandoverCancel |

earlyStatusTransfer |

failureIndication |

handoverReport |

resourceStatusReporting |

accessAndMobilityIndication ,

...

}

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

--

-- Interface Elementary Procedures

--

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

handoverPreparation XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE HandoverRequest

SUCCESSFUL OUTCOME HandoverRequestAcknowledge

UNSUCCESSFUL OUTCOME HandoverPreparationFailure

PROCEDURE CODE id-handoverPreparation

CRITICALITY reject

}

sNStatusTransfer XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SNStatusTransfer

PROCEDURE CODE id-sNStatusTransfer

CRITICALITY ignore

}

handoverCancel XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE HandoverCancel

PROCEDURE CODE id-handoverCancel

CRITICALITY ignore

}

retrieveUEContext XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE RetrieveUEContextRequest

SUCCESSFUL OUTCOME RetrieveUEContextResponse

UNSUCCESSFUL OUTCOME RetrieveUEContextFailure

PROCEDURE CODE id-retrieveUEContext

CRITICALITY reject

}

rANPaging XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE RANPaging

PROCEDURE CODE id-rANPaging

CRITICALITY reject

}

xnUAddressIndication XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE XnUAddressIndication

PROCEDURE CODE id-xnUAddressIndication

CRITICALITY reject

}

uEContextRelease XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE UEContextRelease

PROCEDURE CODE id-uEContextRelease

CRITICALITY reject

}

sNGRANnodeAdditionPreparation XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SNodeAdditionRequest

SUCCESSFUL OUTCOME SNodeAdditionRequestAcknowledge

UNSUCCESSFUL OUTCOME SNodeAdditionRequestReject

PROCEDURE CODE id-sNGRANnodeAdditionPreparation

CRITICALITY reject

}

sNGRANnodeReconfigurationCompletion XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SNodeReconfigurationComplete

PROCEDURE CODE id-sNGRANnodeReconfigurationCompletion

CRITICALITY reject

}

mNGRANnodeinitiatedSNGRANnodeModificationPreparation XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SNodeModificationRequest

SUCCESSFUL OUTCOME SNodeModificationRequestAcknowledge

UNSUCCESSFUL OUTCOME SNodeModificationRequestReject

PROCEDURE CODE id-mNGRANnodeinitiatedSNGRANnodeModificationPreparation

CRITICALITY reject

}

sNGRANnodeinitiatedSNGRANnodeModificationPreparation XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SNodeModificationRequired

SUCCESSFUL OUTCOME SNodeModificationConfirm

UNSUCCESSFUL OUTCOME SNodeModificationRefuse

PROCEDURE CODE id-sNGRANnodeinitiatedSNGRANnodeModificationPreparation

CRITICALITY reject

}

mNGRANnodeinitiatedSNGRANnodeRelease XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SNodeReleaseRequest

SUCCESSFUL OUTCOME SNodeReleaseRequestAcknowledge

UNSUCCESSFUL OUTCOME SNodeReleaseReject

PROCEDURE CODE id-mNGRANnodeinitiatedSNGRANnodeRelease

CRITICALITY reject

}

sNGRANnodeinitiatedSNGRANnodeRelease XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SNodeReleaseRequired

SUCCESSFUL OUTCOME SNodeReleaseConfirm

PROCEDURE CODE id-sNGRANnodeinitiatedSNGRANnodeRelease

CRITICALITY reject

}

sNGRANnodeCounterCheck XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SNodeCounterCheckRequest

PROCEDURE CODE id-sNGRANnodeCounterCheck

CRITICALITY reject

}

sNGRANnodeChange XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SNodeChangeRequired

SUCCESSFUL OUTCOME SNodeChangeConfirm

UNSUCCESSFUL OUTCOME SNodeChangeRefuse

PROCEDURE CODE id-sNGRANnodeChange

CRITICALITY reject

}

rRCTransfer XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE RRCTransfer

PROCEDURE CODE id-rRCTransfer

CRITICALITY reject

}

xnRemoval XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE XnRemovalRequest

SUCCESSFUL OUTCOME XnRemovalResponse

UNSUCCESSFUL OUTCOME XnRemovalFailure

PROCEDURE CODE id-xnRemoval

CRITICALITY reject

}

xnSetup XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE XnSetupRequest

SUCCESSFUL OUTCOME XnSetupResponse

UNSUCCESSFUL OUTCOME XnSetupFailure

PROCEDURE CODE id-xnSetup

CRITICALITY reject

}

nGRANnodeConfigurationUpdate XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE NGRANNodeConfigurationUpdate

SUCCESSFUL OUTCOME NGRANNodeConfigurationUpdateAcknowledge

UNSUCCESSFUL OUTCOME NGRANNodeConfigurationUpdateFailure

PROCEDURE CODE id-nGRANnodeConfigurationUpdate

CRITICALITY reject

}

partialUEContextTransfer XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PartialUEContextTransfer

SUCCESSFUL OUTCOME PartialUEContextTransferAcknowledge

UNSUCCESSFUL OUTCOME PartialUEContextTransferFailure

PROCEDURE CODE id-partialUEContextTransfer

CRITICALITY reject

}

e-UTRA-NR-CellResourceCoordination XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE E-UTRA-NR-CellResourceCoordinationRequest

SUCCESSFUL OUTCOME E-UTRA-NR-CellResourceCoordinationResponse

PROCEDURE CODE id-e-UTRA-NR-CellResourceCoordination

CRITICALITY reject

}

cellActivation XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE CellActivationRequest

SUCCESSFUL OUTCOME CellActivationResponse

UNSUCCESSFUL OUTCOME CellActivationFailure

PROCEDURE CODE id-cellActivation

CRITICALITY reject

}

reset XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ResetRequest

SUCCESSFUL OUTCOME ResetResponse

PROCEDURE CODE id-reset

CRITICALITY reject

}

errorIndication XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ErrorIndication

PROCEDURE CODE id-errorIndication

CRITICALITY ignore

}

notificationControl XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE NotificationControlIndication

PROCEDURE CODE id-notificationControl

CRITICALITY ignore

}

activityNotification XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ActivityNotification

PROCEDURE CODE id-activityNotification

CRITICALITY ignore

}

privateMessage XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PrivateMessage

PROCEDURE CODE id-privateMessage

CRITICALITY ignore

}

secondaryRATDataUsageReport XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SecondaryRATDataUsageReport

PROCEDURE CODE id-secondaryRATDataUsageReport

CRITICALITY reject

}

deactivateTrace XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE DeactivateTrace

PROCEDURE CODE id-deactivateTrace

CRITICALITY ignore

}

traceStart XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE TraceStart

PROCEDURE CODE id-traceStart

CRITICALITY ignore

}

handoverSuccess XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE HandoverSuccess

PROCEDURE CODE id-handoverSuccess

CRITICALITY ignore

}

conditionalHandoverCancel XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ConditionalHandoverCancel

PROCEDURE CODE id-conditionalHandoverCancel

CRITICALITY ignore

}

earlyStatusTransfer XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE EarlyStatusTransfer

PROCEDURE CODE id-earlyStatusTransfer

CRITICALITY ignore

}

failureIndication XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE FailureIndication

PROCEDURE CODE id-failureIndication

CRITICALITY ignore

}

handoverReport XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE HandoverReport

PROCEDURE CODE id-handoverReport

CRITICALITY ignore

}

resourceStatusReportingInitiation XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ResourceStatusRequest

SUCCESSFUL OUTCOME ResourceStatusResponse

UNSUCCESSFUL OUTCOME ResourceStatusFailure

PROCEDURE CODE id-resourceStatusReportingInitiation

CRITICALITY reject

}

resourceStatusReporting XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ResourceStatusUpdate

PROCEDURE CODE id-resourceStatusReporting

CRITICALITY ignore

}

mobilitySettingsChange XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE MobilityChangeRequest

SUCCESSFUL OUTCOME MobilityChangeAcknowledge

UNSUCCESSFUL OUTCOME MobilityChangeFailure

PROCEDURE CODE id-mobilitySettingsChange

CRITICALITY reject

}

accessAndMobilityIndication XNAP-ELEMENTARY-PROCEDURE ::={

INITIATING MESSAGE AccessAndMobilityIndication

PROCEDURE CODE id-accessAndMobilityIndication

CRITICALITY ignore

}

END

-- ASN1STOP

### 9.3.4 PDU Definitions

-- ASN1START

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

--

-- PDU definitions for XnAP.

--

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

XnAP-PDU-Contents {

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

ngran-access (22) modules (3) xnap (2) version1 (1) xnap-PDU-Contents (1) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

--

-- IE parameter types from other modules.

--

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

IMPORTS

ActivationIDforCellActivation,

AMF-Region-Information,

AMF-UE-NGAP-ID,

AS-SecurityInformation,

AssistanceDataForRANPaging,

BitRate,

Cause,

CellAndCapacityAssistanceInfo-EUTRA,

CellAndCapacityAssistanceInfo-NR,

CellAssistanceInfo-EUTRA,

CellAssistanceInfo-NR,

CHOinformation-Req,

CHOinformation-Ack,

CHO-MRDC-EarlyDataForwarding,

CHO-MRDC-Indicator,

CPTransportLayerInformation,

TNLA-To-Add-List,

TNLA-To-Update-List,

TNLA-To-Remove-List,

TNLA-Setup-List,

TNLA-Failed-To-Setup-List,

CriticalityDiagnostics,

XnUAddressInfoperPDUSession-List,

DAPSResponseInfo-List,

DataTrafficResourceIndication,

DeliveryStatus,

DesiredActNotificationLevel,

DRB-ID,

DRB-List,

DRB-Number,

DRBsSubjectToDLDiscarding-List,

DRBsSubjectToEarlyStatusTransfer-List,

DRBsSubjectToStatusTransfer-List,

DRBToQoSFlowMapping-List,

E-UTRA-CGI,

ExpectedUEActivityBehaviour,

ExpectedUEBehaviour,

ExtendedUEIdentityIndexValue,

FiveGCMobilityRestrictionListContainer,

GlobalCell-ID,

GlobalNG-RANNode-ID,

GlobalNG-RANCell-ID,

GUAMI,

InterfaceInstanceIndication,

I-RNTI,

LocationInformationSNReporting,

LocationReportingInformation,

LowerLayerPresenceStatusChange,

LTEUESidelinkAggregateMaximumBitRate,

LTEV2XServicesAuthorized,

MR-DC-ResourceCoordinationInfo,

ServedCells-E-UTRA,

ServedCells-NR,

ServedCellsToUpdate-E-UTRA,

ServedCellsToUpdate-NR,

MAC-I,

MaskedIMEISV,

MDT-Configuration,

MDTPLMNList,

MobilityRestrictionList,

NG-RAN-Cell-Identity,

NG-RANnodeUEXnAPID,

NR-CGI,

NE-DC-TDM-Pattern,

NRUESidelinkAggregateMaximumBitRate,

NRV2XServicesAuthorized,

PagingDRX,

PagingeDRXInformation,

PagingPriority,

PartialListIndicator,

PLMN-Identity,

PDCPChangeIndication,

PDUSessionAggregateMaximumBitRate,

PDUSession-ID,

PDUSession-List,

PDUSession-List-withCause,

PDUSession-List-withDataForwardingFromTarget,

PDUSession-List-withDataForwardingRequest,

PDUSessionResourcesAdmitted-List,

PDUSessionResourcesNotAdmitted-List,

PDUSessionResourcesToBeSetup-List,

PDUSessionResourceChangeRequiredInfo-SNterminated,

PDUSessionResourceChangeRequiredInfo-MNterminated,

PDUSessionResourceChangeConfirmInfo-SNterminated,

PDUSessionResourceChangeConfirmInfo-MNterminated,

PDUSessionResourceSecondaryRATUsageList,

PDUSessionResourceSetupInfo-SNterminated,

PDUSessionResourceSetupInfo-MNterminated,

PDUSessionResourceSetupResponseInfo-SNterminated,

PDUSessionResourceSetupResponseInfo-MNterminated,

PDUSessionResourceModificationInfo-SNterminated,

PDUSessionResourceModificationInfo-MNterminated,

PDUSessionResourceModificationResponseInfo-SNterminated,

PDUSessionResourceModificationResponseInfo-MNterminated,

PDUSessionResourceModConfirmInfo-SNterminated,

PDUSessionResourceModConfirmInfo-MNterminated,

PDUSessionResourceModRqdInfo-SNterminated,

PDUSessionResourceModRqdInfo-MNterminated,

PDUSessionType,

PC5QoSParameters,

QoSFlowIdentifier,

QoSFlowNotificationControlIndicationInfo,

QoSFlows-List,

RANPagingArea,

ResetRequestTypeInfo,

ResetResponseTypeInfo,

RFSP-Index,

RRCConfigIndication,

RRCResumeCause,

SCGConfigurationQuery,

SecurityIndication,

S-NG-RANnode-SecurityKey,

SpectrumSharingGroupID,

SplitSRBsTypes,

S-NG-RANnode-Addition-Trigger-Ind,

S-NSSAI,

TargetCellList,

TAISupport-List,

Target-CGI,

TimeToWait,

TraceActivation,

UEAggregateMaximumBitRate,

UEContextID,

UEContextInfoRetrUECtxtResp,

UEContextKeptIndicator,

UEHistoryInformation,

UEIdentityIndexValue,

UERadioCapabilityForPaging,

UERadioCapabilityID,

UERANPagingIdentity,

UESecurityCapabilities,

UPTransportLayerInformation,

UserPlaneTrafficActivityReport,

XnBenefitValue,

RANPagingFailure,

TNLConfigurationInfo,

MaximumCellListSize,

MessageOversizeNotification,

NG-RANTraceID,

MobilityInformation,

InitiatingCondition-FailureIndication,

HandoverReportType,

TargetCellinEUTRAN,

C-RNTI,

UERLFReportContainer,

Measurement-ID,

RegistrationRequest,

ReportCharacteristics,

CellToReport,

ReportingPeriodicity,

CellMeasurementResult,

UEHistoryInformationFromTheUE,

MobilityParametersInformation,

MobilityParametersModificationRange,

RACHReportInformation,

IABNodeIndication,

SNTriggered,

SCGIndicator,

UESpecificDRX,

SDTSupportRequest, SDT-Termination-Request,

SDTPartialUEContextInfo,

SDTDataForwardingDRBList

FROM XnAP-IEs

PrivateIE-Container{},

ProtocolExtensionContainer{},

ProtocolIE-Container{},

ProtocolIE-ContainerList{},

ProtocolIE-ContainerPair{},

ProtocolIE-ContainerPairList{},

ProtocolIE-Single-Container{},

XNAP-PRIVATE-IES,

XNAP-PROTOCOL-EXTENSION,

XNAP-PROTOCOL-IES,

XNAP-PROTOCOL-IES-PAIR

FROM XnAP-Containers

id-ActivatedServedCells,

id-ActivationIDforCellActivation,

id-AdditionalDRBIDs,

id-AMF-Region-Information,

id-AMF-Region-Information-To-Add,

id-AMF-Region-Information-To-Delete,

id-AssistanceDataForRANPaging,

id-AvailableDRBIDs,

id-Cause,

id-cellAssistanceInfo-EUTRA,

id-cellAssistanceInfo-NR,

id-CellAndCapacityAssistanceInfo-EUTRA,

id-CellAndCapacityAssistanceInfo-NR,

id-ConfigurationUpdateInitiatingNodeChoice,

id-UEContextID,

id-CriticalityDiagnostics,

id-XnUAddressInfoperPDUSession-List,

id-DesiredActNotificationLevel,

id-DRBsSubjectToStatusTransfer-List,

id-ExpectedUEBehaviour,

id-ExtendedUEIdentityIndexValue,

id-FiveGCMobilityRestrictionListContainer,

id-GlobalNG-RAN-node-ID,

id-GUAMI,

id-indexToRatFrequSelectionPriority,

id-List-of-served-cells-E-UTRA,

id-List-of-served-cells-NR,

id-LocationInformationSN,

id-LocationInformationSNReporting,

id-LocationReportingInformation,

id-LTEUESidelinkAggregateMaximumBitRate,

id-LTEV2XServicesAuthorized,

id-MAC-I,

id-MaskedIMEISV,

id-MDT-Configuration,

id-MDTPLMNList,

id-MN-to-SN-Container,

id-MobilityRestrictionList,

id-M-NG-RANnodeUEXnAPID,

id-new-NG-RAN-Cell-Identity,

id-newNG-RANnodeUEXnAPID,

id-NRUESidelinkAggregateMaximumBitRate,

id-NRV2XServicesAuthorized,

id-oldNG-RANnodeUEXnAPID,

id-OldtoNewNG-RANnodeResumeContainer,

id-PagingDRX,

id-PagingeDRXInformation,

id-PagingPriority,

id-PartialListIndicator-EUTRA,

id-PartialListIndicator-NR,

id-PCellID,

id-PDUSessionResourceSecondaryRATUsageList,

id-PDUSessionResourcesActivityNotifyList,

id-PDUSessionResourcesAdmitted-List,

id-PDUSessionResourcesNotAdmitted-List,

id-PDUSessionResourcesNotifyList,

id-PDUSessionToBeAddedAddReq,

id-PDUSessionToBeReleased-RelReqAck,

id-procedureStage,

id-RANPagingArea,

id-requestedSplitSRB,

id-RequiredNumberOfDRBIDs,

id-ResetRequestTypeInfo,

id-ResetResponseTypeInfo,

id-RespondingNodeTypeConfigUpdateAck,

id-RRCResumeCause,

id-selectedPLMN,

id-ServedCellsToActivate,

id-servedCellsToUpdate-E-UTRA,

id-ServedCellsToUpdateInitiatingNodeChoice,

id-servedCellsToUpdate-NR,

id-sourceNG-RANnodeUEXnAPID,

id-SpareDRBIDs,

id-S-NG-RANnodeMaxIPDataRate-UL,

id-S-NG-RANnodeMaxIPDataRate-DL,

id-S-NG-RANnodeUEXnAPID,

id-TAISupport-list,

id-Target2SourceNG-RANnodeTranspContainer,

id-targetCellGlobalID,

id-targetNG-RANnodeUEXnAPID,

id-TimeToWait,

id-TNLA-To-Add-List,

id-TNLA-To-Update-List,

id-TNLA-To-Remove-List,

id-TNLA-Setup-List,

id-TNLA-Failed-To-Setup-List,

id-TraceActivation,

id-UEContextInfoHORequest,

id-UEContextInfoRetrUECtxtResp,

id-UEContextKeptIndicator,

id-UEContextRefAtSN-HORequest,

id-UEHistoryInformation,

id-UEIdentityIndexValue,

id-UERANPagingIdentity,

id-UESecurityCapabilities,

id-UserPlaneTrafficActivityReport,

id-XnRemovalThreshold,

id-PDUSessionAdmittedAddedAddReqAck,

id-PDUSessionNotAdmittedAddReqAck,

id-SN-to-MN-Container,

id-RRCConfigIndication,

id-SplitSRB-RRCTransfer,

id-UEReportRRCTransfer,

id-PDUSessionReleasedList-RelConf,

id-BearersSubjectToCounterCheck,

id-PDUSessionToBeReleasedList-RelRqd,

id-ResponseInfo-ReconfCompl,

id-initiatingNodeType-ResourceCoordRequest,

id-respondingNodeType-ResourceCoordResponse,

id-PDUSessionToBeReleased-RelReq,

id-PDUSession-SNChangeRequired-List,

id-PDUSession-SNChangeConfirm-List,

id-PDCPChangeIndication,

id-PC5QoSParameters,

id-SCGConfigurationQuery,

id-UEContextInfo-SNModRequest,

id-requestedSplitSRBrelease,

id-PDUSessionAdmitted-SNModResponse,

id-PDUSessionNotAdmitted-SNModResponse,

id-admittedSplitSRB,

id-admittedSplitSRBrelease,

id-PDUSessionAdmittedModSNModConfirm,

id-PDUSessionReleasedSNModConfirm,

id-s-ng-RANnode-SecurityKey,

id-PDUSessionToBeModifiedSNModRequired,

id-S-NG-RANnodeUE-AMBR,

id-PDUSessionToBeReleasedSNModRequired,

id-target-S-NG-RANnodeID,

id-S-NSSAI,

id-MR-DC-ResourceCoordinationInfo,

id-RANPagingFailure,

id-UERadioCapabilityForPaging,

id-PDUSessionDataForwarding-SNModResponse,

id-Secondary-MN-Xn-U-TNLInfoatM,

id-NE-DC-TDM-Pattern,

id-InterfaceInstanceIndication,

id-S-NG-RANnode-Addition-Trigger-Ind,

id-SNTriggered,

id-DRBs-transferred-to-MN,

id-TNLConfigurationInfo,

id-MessageOversizeNotification,

id-NG-RANTraceID,

id-FastMCGRecoveryRRCTransfer-SN-to-MN,

id-FastMCGRecoveryRRCTransfer-MN-to-SN,

id-RequestedFastMCGRecoveryViaSRB3,

id-AvailableFastMCGRecoveryViaSRB3,

id-RequestedFastMCGRecoveryViaSRB3Release,

id-ReleaseFastMCGRecoveryViaSRB3,

id-CHOinformation-Req,

id-CHOinformation-Ack,

id-targetCellsToCancel,

id-requestedTargetCellGlobalID,

id-DAPSResponseInfo-List,

id-CHO-MRDC-EarlyDataForwarding,

id-CHO-MRDC-Indicator,

id-MobilityInformation,

id-InitiatingCondition-FailureIndication,

id-UEHistoryInformationFromTheUE,

id-HandoverReportType,

id-HandoverCause,

id-SourceCellCGI,

id-TargetCellCGI,

id-ReEstablishmentCellCGI,

id-TargetCellinEUTRAN,

id-SourceCellCRNTI,

id-UERLFReportContainer,

id-NGRAN-Node1-Measurement-ID,

id-NGRAN-Node2-Measurement-ID,

id-RegistrationRequest,

id-ReportCharacteristics,

id-CellToReport,

id-ReportingPeriodicity,

id-CellMeasurementResult,

id-NG-RANnode1CellID,

id-NG-RANnode2CellID,

id-NG-RANnode1MobilityParameters,

id-NG-RANnode2ProposedMobilityParameters,

id-MobilityParametersModificationRange,

id-RACHReportInformation,

id-IABNodeIndication,

id-UERadioCapabilityID,

id-SCGIndicator,

id-UESpecificDRX,

id-PDUSessionExpectedUEActivityBehaviour,

id-SDTSupportRequest,

id-SDT-SRB-between-NewNode-OldNode,

id-SDT-Termination-Request,

id-SDTPartialUEContextInfo,

id-SDTDataForwardingDRBList

maxnoofCellsinNG-RANnode,

maxnoofDRBs,

maxnoofPDUSessions,

maxnoofQoSFlows,

maxnoofSRBs

FROM XnAP-Constants;

-----------Skip unchanged------------

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

--

-- RETRIEVE UE CONTEXT REQUEST

--

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

RetrieveUEContextRequest ::= SEQUENCE {

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

...

}

RetrieveUEContextRequest-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-newNG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

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

{ ID id-MAC-I CRITICALITY reject TYPE MAC-I PRESENCE mandatory}|

{ ID id-new-NG-RAN-Cell-Identity CRITICALITY reject TYPE NG-RAN-Cell-Identity PRESENCE mandatory}|

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

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

...

}

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

--

-- RETRIEVE UE CONTEXT RESPONSE

--

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

RetrieveUEContextResponse ::= SEQUENCE {

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

...

}

RetrieveUEContextResponse-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-newNG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-oldNG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

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

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

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

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

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

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

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

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

{ ID id-PC5QoSParameters CRITICALITY ignore TYPE PC5QoSParameters PRESENCE optional }|

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

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

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

...

}

-----------Skip unchanged------------

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

--

-- RETRIEVE UE CONTEXT CONFIRM

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

RetrieveUEContextConfirm ::= SEQUENCE {

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

...

}

RetrieveUEContextConfirm-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-oldNG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-newNG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

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

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

...

}

-----------Skip unchanged------------

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

--

-- RRC TRANSFER

--

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

RRCTransfer ::= SEQUENCE {

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

...

}

RRCTransfer-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-SplitSRB-RRCTransfer CRITICALITY reject TYPE SplitSRB-RRCTransfer PRESENCE optional }|

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

{ ID id-FastMCGRecoveryRRCTransfer-SN-to-MN CRITICALITY ignore TYPE FastMCGRecoveryRRCTransfer PRESENCE optional}|

{ ID id-FastMCGRecoveryRRCTransfer-MN-to-SN CRITICALITY ignore TYPE FastMCGRecoveryRRCTransfer PRESENCE optional}|

{ ID id-SDT-SRB-between-NewNode-OldNode CRITICALITY ignore TYPE SDT-SRB-between-NewNode-OldNode PRESENCE optional},

...

}

SplitSRB-RRCTransfer ::= SEQUENCE {

rrcContainer OCTET STRING OPTIONAL,

srbType ENUMERATED {srb1, srb2, ...},

deliveryStatus DeliveryStatus OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {SplitSRB-RRCTransfer-ExtIEs} } OPTIONAL,

...

}

SplitSRB-RRCTransfer-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

UEReportRRCTransfer::= SEQUENCE {

rrcContainer OCTET STRING,

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

...

}

UEReportRRCTransfer-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

FastMCGRecoveryRRCTransfer::= SEQUENCE {

rrcContainer OCTET STRING,

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

...

}

FastMCGRecoveryRRCTransfer-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SDT-SRB-between-NewNode-OldNode::= SEQUENCE {

rrcContainer OCTET STRING,

iE-Extensions ProtocolExtensionContainer { { SDT-SRB-between-NewNode-OldNode-ExtIEs} } OPTIONAL,

...

}

SDT-SRB-between-NewNode-OldNode-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-----------Skip unchanged------------

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

--

-- S-NODE ADDITION REQUEST

--

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

SNodeAdditionRequest ::= SEQUENCE {

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

...

}

SNodeAdditionRequest-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

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

{ ID id-s-ng-RANnode-SecurityKey CRITICALITY reject TYPE S-NG-RANnode-SecurityKey PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUE-AMBR CRITICALITY reject TYPE UEAggregateMaximumBitRate PRESENCE mandatory}|

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

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

{ ID id-indexToRatFrequSelectionPriority CRITICALITY reject TYPE RFSP-Index PRESENCE optional }|

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

{ ID id-MN-to-SN-Container CRITICALITY reject TYPE OCTET STRING PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE optional }|

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

{ ID id-requestedSplitSRB CRITICALITY reject TYPE SplitSRBsTypes PRESENCE optional }|

{ ID id-PCellID CRITICALITY reject TYPE GlobalNG-RANCell-ID PRESENCE optional }|

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

{ ID id-AvailableDRBIDs CRITICALITY reject TYPE DRB-List PRESENCE conditional}

-- The IE shall be present if there is at least one PDUSessionResourceSetupInfo-SNterminated included --|

{ ID id-S-NG-RANnodeMaxIPDataRate-UL CRITICALITY reject TYPE BitRate PRESENCE optional }|

{ ID id-S-NG-RANnodeMaxIPDataRate-DL CRITICALITY reject TYPE BitRate PRESENCE optional }|

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

{ ID id-MR-DC-ResourceCoordinationInfo CRITICALITY ignore TYPE MR-DC-ResourceCoordinationInfo PRESENCE optional }|

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

{ ID id-NE-DC-TDM-Pattern CRITICALITY ignore TYPE NE-DC-TDM-Pattern PRESENCE optional}|

{ ID id-S-NG-RANnode-Addition-Trigger-Ind CRITICALITY reject TYPE S-NG-RANnode-Addition-Trigger-Ind PRESENCE optional}|

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

{ ID id-RequestedFastMCGRecoveryViaSRB3 CRITICALITY ignore TYPE RequestedFastMCGRecoveryViaSRB3 PRESENCE optional}|

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

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

...

}

-----------Skip unchanged------------

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

--

-- S-NODE MODIFICATION REQUEST

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

SNodeModificationRequest ::= SEQUENCE {

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

...

}

SNodeModificationRequest-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

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

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

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

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

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

{ ID id-UEContextInfo-SNModRequest CRITICALITY reject TYPE UEContextInfo-SNModRequest PRESENCE optional }|

{ ID id-MN-to-SN-Container CRITICALITY ignore TYPE OCTET STRING PRESENCE optional }|

{ ID id-requestedSplitSRB CRITICALITY ignore TYPE SplitSRBsTypes PRESENCE optional }|

{ ID id-requestedSplitSRBrelease CRITICALITY ignore TYPE SplitSRBsTypes PRESENCE optional }|

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

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

{ ID id-S-NG-RANnodeMaxIPDataRate-UL CRITICALITY reject TYPE BitRate PRESENCE optional }|

{ ID id-S-NG-RANnodeMaxIPDataRate-DL CRITICALITY reject TYPE BitRate PRESENCE optional }|

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

{ ID id-MR-DC-ResourceCoordinationInfo CRITICALITY ignore TYPE MR-DC-ResourceCoordinationInfo PRESENCE optional }|

{ ID id-PCellID CRITICALITY reject TYPE GlobalNG-RANCell-ID PRESENCE optional }|

{ ID id-NE-DC-TDM-Pattern CRITICALITY ignore TYPE NE-DC-TDM-Pattern PRESENCE optional}|

{ ID id-RequestedFastMCGRecoveryViaSRB3 CRITICALITY ignore TYPE RequestedFastMCGRecoveryViaSRB3 PRESENCE optional }|

{ ID id-RequestedFastMCGRecoveryViaSRB3Release CRITICALITY ignore TYPE RequestedFastMCGRecoveryViaSRB3Release PRESENCE optional }|

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

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

...

}

-----------Skip unchanged------------

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

--

-- S-NODE MODIFICATION REQUEST ACKNOWLEDGE

--

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

SNodeModificationRequestAcknowledge ::= SEQUENCE {

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

...

}

SNodeModificationRequestAcknowledge-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-PDUSessionAdmitted-SNModResponse CRITICALITY ignore TYPE PDUSessionAdmitted-SNModResponse PRESENCE optional }|

{ ID id-PDUSessionNotAdmitted-SNModResponse CRITICALITY ignore TYPE PDUSessionNotAdmitted-SNModResponse PRESENCE optional }|

{ ID id-SN-to-MN-Container CRITICALITY ignore TYPE OCTET STRING PRESENCE optional }|

{ ID id-admittedSplitSRB CRITICALITY ignore TYPE SplitSRBsTypes PRESENCE optional }|

{ ID id-admittedSplitSRBrelease CRITICALITY ignore TYPE SplitSRBsTypes PRESENCE optional }|

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

{ ID id-LocationInformationSN CRITICALITY ignore TYPE Target-CGI PRESENCE optional }|

{ ID id-MR-DC-ResourceCoordinationInfo CRITICALITY ignore TYPE MR-DC-ResourceCoordinationInfo PRESENCE optional }|

{ ID id-PDUSessionDataForwarding-SNModResponse CRITICALITY ignore TYPE PDUSessionDataForwarding-SNModResponse PRESENCE optional }|

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

{ ID id-AvailableFastMCGRecoveryViaSRB3 CRITICALITY ignore TYPE AvailableFastMCGRecoveryViaSRB3 PRESENCE optional }|

{ ID id-ReleaseFastMCGRecoveryViaSRB3 CRITICALITY ignore TYPE ReleaseFastMCGRecoveryViaSRB3 PRESENCE optional }|

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

...

}

PDUSessionAdmitted-SNModResponse ::= SEQUENCE {

pduSessionResourcesAdmittedToBeAdded PDUSessionAdmittedToBeAddedSNModResponse OPTIONAL,

pduSessionResourcesAdmittedToBeModified PDUSessionAdmittedToBeModifiedSNModResponse OPTIONAL,

pduSessionResourcesAdmittedToBeReleased PDUSessionAdmittedToBeReleasedSNModResponse OPTIONAL,

iE-Extension ProtocolExtensionContainer { {PDUSessionAdmitted-SNModResponse-ExtIEs} } OPTIONAL,

...

}

PDUSessionAdmitted-SNModResponse-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDUSessionAdmittedToBeAddedSNModResponse ::= SEQUENCE (SIZE(1..maxnoofPDUSessions)) OF PDUSessionAdmittedToBeAddedSNModResponse-Item

PDUSessionAdmittedToBeAddedSNModResponse-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

sn-terminated PDUSessionResourceSetupResponseInfo-SNterminated OPTIONAL,

mn-terminated PDUSessionResourceSetupResponseInfo-MNterminated OPTIONAL,

-- NOTE: If neither the *PDU Session Resource Setup Response Info – SN terminated* IE

-- nor the *PDU Session Resource Setup Response Info – MN terminated* IE is present,

-- abnormal conditions as specified in clause 8.3.3.4 apply.

iE-Extension ProtocolExtensionContainer { {PDUSessionAdmittedToBeAddedSNModResponse-Item-ExtIEs} } OPTIONAL,

...

}

PDUSessionAdmittedToBeAddedSNModResponse-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDUSessionAdmittedToBeModifiedSNModResponse::= SEQUENCE (SIZE(1..maxnoofPDUSessions)) OF PDUSessionAdmittedToBeModifiedSNModResponse-Item

PDUSessionAdmittedToBeModifiedSNModResponse-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

sn-terminated PDUSessionResourceModificationResponseInfo-SNterminated OPTIONAL,

mn-terminated PDUSessionResourceModificationResponseInfo-MNterminated OPTIONAL,

-- NOTE: If neither the *PDU Session Resource Modification Response Info – SN terminated* IE

-- nor the *PDU Session Resource Modification Response Info – MN terminated* IE is present,

-- abnormal conditions as specified in clause 8.3.3.4 apply.

iE-Extension ProtocolExtensionContainer { {PDUSessionAdmittedToBeModifiedSNModResponse-Item-ExtIEs} } OPTIONAL,

...

}

PDUSessionAdmittedToBeModifiedSNModResponse-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDUSessionAdmittedToBeReleasedSNModResponse ::= SEQUENCE {

sn-terminated PDUSession-List-withDataForwardingRequest OPTIONAL,

mn-terminated PDUSession-List-withCause OPTIONAL,

iE-Extension ProtocolExtensionContainer { {PDUSessionAdmittedToBeReleasedSNModResponse-ExtIEs} } OPTIONAL,

...

}

PDUSessionAdmittedToBeReleasedSNModResponse-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDUSessionNotAdmitted-SNModResponse ::= SEQUENCE {

pdu-Session-List PDUSession-List OPTIONAL,

iE-Extension ProtocolExtensionContainer { {PDUSessionNotAdmitted-SNModResponse-ExtIEs} } OPTIONAL,

...

}

PDUSessionNotAdmitted-SNModResponse-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDUSessionDataForwarding-SNModResponse ::= SEQUENCE {

sn-terminated PDUSession-List-withDataForwardingRequest,

iE-Extensions ProtocolExtensionContainer { {PDUSessionDataForwarding-SNModResponse-ExtIEs} } OPTIONAL,

...

}

PDUSessionDataForwarding-SNModResponse-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ReleaseFastMCGRecoveryViaSRB3 ::= ENUMERATED {true, ...}

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

--

-- S-NODE MODIFICATION REQUIRED

--

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

SNodeModificationRequired ::= SEQUENCE {

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

...

}

SNodeModificationRequired-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

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

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

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

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

{ ID id-SN-to-MN-Container CRITICALITY ignore TYPE OCTET STRING PRESENCE optional }|

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

{ ID id-RequiredNumberOfDRBIDs CRITICALITY ignore TYPE DRB-Number PRESENCE optional }|

{ ID id-LocationInformationSN CRITICALITY ignore TYPE Target-CGI PRESENCE optional }|

{ ID id-MR-DC-ResourceCoordinationInfo CRITICALITY ignore TYPE MR-DC-ResourceCoordinationInfo PRESENCE optional }|

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

{ ID id-AvailableFastMCGRecoveryViaSRB3 CRITICALITY ignore TYPE AvailableFastMCGRecoveryViaSRB3 PRESENCE optional }|

{ ID id-ReleaseFastMCGRecoveryViaSRB3 CRITICALITY ignore TYPE ReleaseFastMCGRecoveryViaSRB3 PRESENCE optional }|

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

...

}

-----------Skip unchanged------------

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

--

-- ACCESS AND MOBILITY INDICATION

--

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

AccessAndMobilityIndication ::= SEQUENCE {

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

...

}

AccessAndMobilityIndication-IEs XNAP-PROTOCOL-IES ::= {

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

...

}

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

--

-- PARTIAL UE CONTEXT TRANSFER

--

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

PartialUEContextTransfer ::= SEQUENCE {

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

...

}

PartialUEContextTransfer-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-newNG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-oldNG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

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

...

}

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

--

-- PARTIAL UE CONTEXT TRANSFER ACKNOWLEDGE

--

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

PartialUEContextTransferAcknowledge ::= SEQUENCE {

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

...

}

PartialUEContextTransferAcknowledge-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-newNG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-oldNG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

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

...

}

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

--

-- PARTIAL UE CONTEXT TRANSFER FAILURE

--

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

PartialUEContextTransferFailure::= SEQUENCE {

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

...

}

PartialUEContextTransferFailure-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-newNG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-oldNG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

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

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

...

}

END

-- ASN1STOP

### 9.3.5 Information Element definitions

-- ASN1START

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

--

-- Information Element Definitions

--

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

XnAP-IEs {

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

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

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

id-CNTypeRestrictionsForEquivalent,

id-CNTypeRestrictionsForServing,

-----------Skip unchanged------------

-- S

SecondarydataForwardingInfoFromTarget-Item::= SEQUENCE {

secondarydataForwardingInfoFromTarget DataForwardingInfoFromTargetNGRANnode,

iE-Extensions ProtocolExtensionContainer { { SecondarydataForwardingInfoFromTarget-Item-ExtIEs} } OPTIONAL,

...

}

SecondarydataForwardingInfoFromTarget-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SecondarydataForwardingInfoFromTarget-List ::= SEQUENCE (SIZE(1..maxnoofMultiConnectivityMinusOne)) OF SecondarydataForwardingInfoFromTarget-Item

SCGConfigurationQuery ::= ENUMERATED {true, ...}

SCGIndicator ::= ENUMERATED{released, ...}

SecondaryRATUsageInformation ::= SEQUENCE {

pDUSessionUsageReport PDUSessionUsageReport OPTIONAL,

qosFlowsUsageReportList QoSFlowsUsageReportList OPTIONAL,

iE-Extension ProtocolExtensionContainer { {SecondaryRATUsageInformation-ExtIEs} } OPTIONAL,

...

}

SecondaryRATUsageInformation-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SecurityIndication ::= SEQUENCE {

integrityProtectionIndication ENUMERATED {required, preferred, not-needed, ...},

confidentialityProtectionIndication ENUMERATED {required, preferred, not-needed, ...},

maximumIPdatarate MaximumIPdatarate OPTIONAL,

-- This IE shall be present if the *Integrity Protection* IE within the *Security Indication* IE is present and set to "required" or "preferred". --

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

...

}

SecurityIndication-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SecurityResult ::= SEQUENCE {

integrityProtectionResult ENUMERATED {performed, not-performed, ...},

confidentialityProtectionResult ENUMERATED {performed, not-performed, ...},

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

...

}

SecurityResult-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SensorMeasurementConfiguration ::= SEQUENCE {

sensorMeasConfig SensorMeasConfig,

sensorMeasConfigNameList SensorMeasConfigNameList OPTIONAL,

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

...

}

SensorMeasurementConfiguration-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SensorMeasConfigNameList ::= SEQUENCE (SIZE(1..maxnoofSensorName)) OF SensorName

SensorMeasConfig::= ENUMERATED {setup,...}

SensorName ::= SEQUENCE {

uncompensatedBarometricConfig ENUMERATED {true, ...} OPTIONAL,

ueSpeedConfig ENUMERATED {true, ...} OPTIONAL,

ueOrientationConfig ENUMERATED {true, ...} OPTIONAL,

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

...

}

SensorNameConfig-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- Served Cells E-UTRA IEs

ServedCellInformation-E-UTRA ::= SEQUENCE {

e-utra-pci E-UTRAPCI,

e-utra-cgi E-UTRA-CGI,

tac TAC,

ranac RANAC OPTIONAL,

broadcastPLMNs SEQUENCE (SIZE(1..maxnoofBPLMNs)) OF ServedCellInformation-E-UTRA-perBPLMN,

e-utra-mode-info ServedCellInformation-E-UTRA-ModeInfo,

numberofAntennaPorts NumberOfAntennaPorts-E-UTRA OPTIONAL,

prach-configuration E-UTRAPRACHConfiguration OPTIONAL,

mBSFNsubframeInfo MBSFNSubframeInfo-E-UTRA OPTIONAL,

multibandInfo E-UTRAMultibandInfoList OPTIONAL,

freqBandIndicatorPriority ENUMERATED {not-broadcast, broadcast, ...} OPTIONAL,

bandwidthReducedSI ENUMERATED {scheduled, ...} OPTIONAL,

protectedE-UTRAResourceIndication ProtectedE-UTRAResourceIndication OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ServedCellInformation-E-UTRA-ExtIEs} } OPTIONAL,

...

}

ServedCellInformation-E-UTRA-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-BPLMN-ID-Info-EUTRA CRITICALITY ignore EXTENSION BPLMN-ID-Info-EUTRA PRESENCE optional }|

{ ID id-NPRACHConfiguration CRITICALITY ignore EXTENSION NPRACHConfiguration PRESENCE optional},

...

}

ServedCellInformation-E-UTRA-perBPLMN ::= SEQUENCE {

plmn-id PLMN-Identity,

iE-Extensions ProtocolExtensionContainer { {ServedCellInformation-E-UTRA-perBPLMN-ExtIEs} } OPTIONAL,

...

}

ServedCellInformation-E-UTRA-perBPLMN-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ServedCellInformation-E-UTRA-ModeInfo ::= CHOICE {

fdd ServedCellInformation-E-UTRA-FDDInfo,

tdd ServedCellInformation-E-UTRA-TDDInfo,

choice-extension ProtocolIE-Single-Container{ {ServedCellInformation-E-UTRA-ModeInfo-ExtIEs} }

}

ServedCellInformation-E-UTRA-ModeInfo-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

ServedCellInformation-E-UTRA-FDDInfo ::= SEQUENCE {

ul-earfcn E-UTRAARFCN,

dl-earfcn E-UTRAARFCN,

ul-e-utraTxBW E-UTRATransmissionBandwidth,

dl-e-utraTxBW E-UTRATransmissionBandwidth,

iE-Extensions ProtocolExtensionContainer { {ServedCellInformation-E-UTRA-FDDInfo-ExtIEs} } OPTIONAL,

...

}

ServedCellInformation-E-UTRA-FDDInfo-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-OffsetOfNbiotChannelNumberToDL-EARFCN CRITICALITY reject EXTENSION OffsetOfNbiotChannelNumberToEARFCN PRESENCE optional}|

{ ID id-OffsetOfNbiotChannelNumberToUL-EARFCN CRITICALITY reject EXTENSION OffsetOfNbiotChannelNumberToEARFCN PRESENCE optional},

...

}

ServedCellInformation-E-UTRA-TDDInfo ::= SEQUENCE {

earfcn E-UTRAARFCN,

e-utraTxBW E-UTRATransmissionBandwidth,

subframeAssignmnet ENUMERATED {sa0,sa1,sa2,sa3,sa4,sa5,sa6,...},

specialSubframeInfo SpecialSubframeInfo-E-UTRA,

iE-Extensions ProtocolExtensionContainer { {ServedCellInformation-E-UTRA-TDDInfo-ExtIEs} } OPTIONAL,

...

}

ServedCellInformation-E-UTRA-TDDInfo-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-OffsetOfNbiotChannelNumberToDL-EARFCN CRITICALITY reject EXTENSION OffsetOfNbiotChannelNumberToEARFCN PRESENCE optional}|

{ ID id-NBIoT-UL-DL-AlignmentOffset CRITICALITY reject EXTENSION NBIoT-UL-DL-AlignmentOffset PRESENCE optional},

...

}

ServedCells-E-UTRA ::= SEQUENCE (SIZE (1..maxnoofCellsinNG-RANnode)) OF ServedCells-E-UTRA-Item

ServedCells-E-UTRA-Item ::= SEQUENCE {

served-cell-info-E-UTRA ServedCellInformation-E-UTRA,

neighbour-info-NR NeighbourInformation-NR OPTIONAL,

neighbour-info-E-UTRA NeighbourInformation-E-UTRA OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ServedCells-E-UTRA-Item-ExtIEs} } OPTIONAL,

...

}

ServedCells-E-UTRA-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-SFN-Offset CRITICALITY ignore EXTENSION SFN-Offset PRESENCE optional },

...

}

ServedCellsToUpdate-E-UTRA ::= SEQUENCE {

served-Cells-ToAdd-E-UTRA ServedCells-E-UTRA OPTIONAL,

served-Cells-ToModify-E-UTRA ServedCells-ToModify-E-UTRA OPTIONAL,

served-Cells-ToDelete-E-UTRA SEQUENCE (SIZE (1..maxnoofCellsinNG-RANnode)) OF E-UTRA-CGI OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ServedCellsToUpdate-E-UTRA-ExtIEs} } OPTIONAL,

...

}

ServedCellsToUpdate-E-UTRA-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ServedCells-ToModify-E-UTRA ::= SEQUENCE (SIZE (1..maxnoofCellsinNG-RANnode)) OF ServedCells-ToModify-E-UTRA-Item

ServedCells-ToModify-E-UTRA-Item ::= SEQUENCE {

old-ECGI E-UTRA-CGI,

served-cell-info-E-UTRA ServedCellInformation-E-UTRA,

neighbour-info-NR NeighbourInformation-NR OPTIONAL,

neighbour-info-E-UTRA NeighbourInformation-E-UTRA OPTIONAL,

deactivation-indication ENUMERATED {deactivated, ...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {Served-cells-ToModify-E-UTRA-Item-ExtIEs} } OPTIONAL,

...

}

Served-cells-ToModify-E-UTRA-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- Served Cells NR IEs

ServedCellInformation-NR ::= SEQUENCE {

nrPCI NRPCI,

cellID NR-CGI,

tac TAC,

ranac RANAC OPTIONAL,

broadcastPLMN BroadcastPLMNs,

nrModeInfo NRModeInfo,

measurementTimingConfiguration OCTET STRING,

connectivitySupport Connectivity-Support,

iE-Extensions ProtocolExtensionContainer { {ServedCellInformation-NR-ExtIEs} } OPTIONAL,

...

}

ServedCellInformation-NR-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-BPLMN-ID-Info-NR CRITICALITY ignore EXTENSION BPLMN-ID-Info-NR PRESENCE optional }|

{ ID id-ConfiguredTACIndication CRITICALITY ignore EXTENSION ConfiguredTACIndication PRESENCE optional }|

{ ID id-SSB-PositionsInBurst CRITICALITY ignore EXTENSION SSB-PositionsInBurst PRESENCE optional }|

{ ID id-NRCellPRACHConfig CRITICALITY ignore EXTENSION NRCellPRACHConfig PRESENCE optional }|

{ ID id-NPN-Broadcast-Information CRITICALITY reject EXTENSION NPN-Broadcast-Information PRESENCE optional }|

{ ID id-CSI-RSTransmissionIndication CRITICALITY ignore EXTENSION CSI-RSTransmissionIndication PRESENCE optional } |

{ ID id-SFN-Offset CRITICALITY ignore EXTENSION SFN-Offset PRESENCE optional },

...

}

SFN-Offset ::= SEQUENCE {

sFN-Time-Offset BIT STRING (SIZE(24)),

iE-Extensions ProtocolExtensionContainer { {SFN-Offset-ExtIEs} } OPTIONAL,

...

}

SFN-Offset-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ServedCells-NR ::= SEQUENCE (SIZE (1..maxnoofCellsinNG-RANnode)) OF ServedCells-NR-Item

ServedCells-NR-Item ::= SEQUENCE {

served-cell-info-NR ServedCellInformation-NR,

neighbour-info-NR NeighbourInformation-NR OPTIONAL,

neighbour-info-E-UTRA NeighbourInformation-E-UTRA OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ServedCells-NR-Item-ExtIEs} } OPTIONAL,

...

}

ServedCells-NR-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ServedCells-ToModify-NR ::= SEQUENCE (SIZE (1..maxnoofCellsinNG-RANnode)) OF ServedCells-ToModify-NR-Item

ServedCells-ToModify-NR-Item ::= SEQUENCE {

old-NR-CGI NR-CGI,

served-cell-info-NR ServedCellInformation-NR,

neighbour-info-NR NeighbourInformation-NR OPTIONAL,

neighbour-info-E-UTRA NeighbourInformation-E-UTRA OPTIONAL,

deactivation-indication ENUMERATED {deactivated, ...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {Served-cells-ToModify-NR-Item-ExtIEs} } OPTIONAL,

...

}

Served-cells-ToModify-NR-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ServedCellsToUpdate-NR ::= SEQUENCE {

served-Cells-ToAdd-NR ServedCells-NR OPTIONAL,

served-Cells-ToModify-NR ServedCells-ToModify-NR OPTIONAL,

served-Cells-ToDelete-NR SEQUENCE (SIZE (1..maxnoofCellsinNG-RANnode)) OF NR-CGI OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ServedCellsToUpdate-NR-ExtIEs} } OPTIONAL,

...

}

ServedCellsToUpdate-NR-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SharedResourceType ::= CHOICE {

ul-onlySharing SharedResourceType-UL-OnlySharing,

ul-and-dl-Sharing SharedResourceType-ULDL-Sharing,

choice-extension ProtocolIE-Single-Container { {SharedResourceType-ExtIEs} }

}

SharedResourceType-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

SharedResourceType-UL-OnlySharing ::= SEQUENCE {

ul-resourceBitmap DataTrafficResources,

iE-Extensions ProtocolExtensionContainer { {SharedResourceType-UL-OnlySharing-ExtIEs} } OPTIONAL,

...

}

SharedResourceType-UL-OnlySharing-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SharedResourceType-ULDL-Sharing ::= CHOICE {

ul-resources SharedResourceType-ULDL-Sharing-UL-Resources,

dl-resources SharedResourceType-ULDL-Sharing-DL-Resources,

choice-extension ProtocolIE-Single-Container { {SharedResourceType-ULDL-Sharing-ExtIEs} }

}

SharedResourceType-ULDL-Sharing-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

SharedResourceType-ULDL-Sharing-UL-Resources ::= CHOICE {

unchanged NULL,

changed SharedResourceType-ULDL-Sharing-UL-ResourcesChanged,

choice-extension ProtocolIE-Single-Container { {SharedResourceType-ULDL-Sharing-UL-Resources-ExtIEs} }

}

SharedResourceType-ULDL-Sharing-UL-Resources-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

SharedResourceType-ULDL-Sharing-UL-ResourcesChanged ::= SEQUENCE {

ul-resourceBitmap DataTrafficResources,

iE-Extensions ProtocolExtensionContainer { {SharedResourceType-ULDL-Sharing-UL-ResourcesChanged-ExtIEs} } OPTIONAL,

...

}

SharedResourceType-ULDL-Sharing-UL-ResourcesChanged-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SharedResourceType-ULDL-Sharing-DL-Resources ::= CHOICE {

unchanged NULL,

changed SharedResourceType-ULDL-Sharing-DL-ResourcesChanged,

choice-extension ProtocolIE-Single-Container { {SharedResourceType-ULDL-Sharing-DL-Resources-ExtIEs} }

}

SharedResourceType-ULDL-Sharing-DL-Resources-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

SharedResourceType-ULDL-Sharing-DL-ResourcesChanged ::= SEQUENCE {

dl-resourceBitmap DataTrafficResources,

iE-Extensions ProtocolExtensionContainer { {SharedResourceType-ULDL-Sharing-DL-ResourcesChanged-ExtIEs} } OPTIONAL,

...

}

SharedResourceType-ULDL-Sharing-DL-ResourcesChanged-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SliceAvailableCapacity ::= SEQUENCE (SIZE(1..maxnoofBPLMNs)) OF SliceAvailableCapacity-Item

SliceAvailableCapacity-Item ::= SEQUENCE {

pLMNIdentity PLMN-Identity,

sNSSAIAvailableCapacity-List SNSSAIAvailableCapacity-List,

iE-Extensions ProtocolExtensionContainer { { SliceAvailableCapacity-Item-ExtIEs} } OPTIONAL,

...

}

SliceAvailableCapacity-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SNSSAIAvailableCapacity-List ::= SEQUENCE (SIZE(1.. maxnoofSliceItems)) OF SNSSAIAvailableCapacity-Item

SNSSAIAvailableCapacity-Item ::= SEQUENCE {

sNSSAI S-NSSAI,

sliceAvailableCapacityValueDownlink INTEGER (0..100),

sliceAvailableCapacityValueUplink INTEGER (0..100),

iE-Extensions ProtocolExtensionContainer { { SNSSAIAvailableCapacity-Item-ExtIEs } } OPTIONAL

}

SNSSAIAvailableCapacity-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SliceSupport-List ::= SEQUENCE (SIZE(1..maxnoofSliceItems)) OF S-NSSAI

SliceToReport-List ::= SEQUENCE (SIZE(1..maxnoofBPLMNs)) OF SliceToReport-List-Item

SliceToReport-List-Item ::= SEQUENCE {

pLMNIdentity PLMN-Identity,

sNSSAIlist SNSSAI-list,

iE-Extensions ProtocolExtensionContainer { { SliceToReport-List-Item-ExtIEs} } OPTIONAL,

...

}

SliceToReport-List-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SNSSAI-list ::= SEQUENCE (SIZE(1.. maxnoofSliceItems)) OF SNSSAI-Item

SNSSAI-Item ::= SEQUENCE {

sNSSAI S-NSSAI,

iE-Extensions ProtocolExtensionContainer { { SNSSAI-Item-ExtIEs } } OPTIONAL

}

SNSSAI-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SlotConfiguration-List ::= SEQUENCE (SIZE (1..maxnoofslots)) OF SlotConfiguration-List-Item

SlotConfiguration-List-Item ::= SEQUENCE {

slotIndex INTEGER (0..5119),

symbolAllocation-in-Slot SymbolAllocation-in-Slot,

iE-Extensions ProtocolExtensionContainer { {SlotConfiguration-List-Item-ExtIEs} } OPTIONAL,

...

}

SlotConfiguration-List-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

S-NG-RANnode-SecurityKey ::= BIT STRING (SIZE(256))

S-NG-RANnode-Addition-Trigger-Ind ::= ENUMERATED {

sn-change,

inter-MN-HO,

intra-MN-HO,

...

}

S-NSSAI ::= SEQUENCE {

sst OCTET STRING (SIZE(1)),

sd OCTET STRING (SIZE(3)) OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {S-NSSAI-ExtIEs} } OPTIONAL,

...

}

S-NSSAI-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SNTriggered ::=ENUMERATED{

true,

...

}

SpecialSubframeInfo-E-UTRA ::= SEQUENCE {

specialSubframePattern SpecialSubframePatterns-E-UTRA,

cyclicPrefixDL CyclicPrefix-E-UTRA-DL,

cyclicPrefixUL CyclicPrefix-E-UTRA-UL,

iE-Extensions ProtocolExtensionContainer { {SpecialSubframeInfo-E-UTRA-ExtIEs} } OPTIONAL,

...

}

SpecialSubframeInfo-E-UTRA-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SpecialSubframePatterns-E-UTRA ::= ENUMERATED {

ssp0,

ssp1,

ssp2,

ssp3,

ssp4,

ssp5,

ssp6,

ssp7,

ssp8,

ssp9,

ssp10,

...

}

SpectrumSharingGroupID ::= INTEGER (1..maxnoofCellsinNG-RANnode)

SplitSessionIndicator ::= ENUMERATED {

split,

...

}

SplitSRBsTypes ::= ENUMERATED {srb1, srb2, srb1and2, ...}

SSBAreaCapacityValue-List ::= SEQUENCE (SIZE(1..maxnoofSSBAreas)) OF SSBAreaCapacityValue-List-Item

SSBAreaCapacityValue-List-Item ::= SEQUENCE {

sSBIndex INTEGER(0..63),

ssbAreaCapacityValue INTEGER (0..100),

iE-Extensions ProtocolExtensionContainer { { SSBAreaCapacityValue-List-Item-ExtIEs} } OPTIONAL,

...

}

SSBAreaCapacityValue-List-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SSBAreaRadioResourceStatus-List ::= SEQUENCE (SIZE(1..maxnoofSSBAreas)) OF SSBAreaRadioResourceStatus-List-Item

SSBAreaRadioResourceStatus-List-Item ::= SEQUENCE {

sSBIndex INTEGER(0..63),

ssb-Area-DL-GBR-PRB-usage DL-GBR-PRB-usage,

ssb-Area-UL-GBR-PRB-usage UL-GBR-PRB-usage,

ssb-Area-dL-non-GBR-PRB-usage DL-non-GBR-PRB-usage,

ssb-Area-uL-non-GBR-PRB-usage UL-non-GBR-PRB-usage,

ssb-Area-dL-Total-PRB-usage DL-Total-PRB-usage,

ssb-Area-uL-Total-PRB-usage UL-Total-PRB-usage,

iE-Extensions ProtocolExtensionContainer { { SSBAreaRadioResourceStatus-List-Item-ExtIEs} } OPTIONAL,

...

}

SSBAreaRadioResourceStatus-List-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-DL-scheduling-PDCCH-CCE-usage CRITICALITY ignore EXTENSION DL-scheduling-PDCCH-CCE-usage PRESENCE optional}|

{ ID id-UL-scheduling-PDCCH-CCE-usage CRITICALITY ignore EXTENSION UL-scheduling-PDCCH-CCE-usage PRESENCE optional},

...

}

SSB-PositionsInBurst ::= CHOICE {

shortBitmap BIT STRING (SIZE (4)),

mediumBitmap BIT STRING (SIZE (8)),

longBitmap BIT STRING (SIZE (64)),

choice-extension ProtocolIE-Single-Container { {SSB-PositionsInBurst-ExtIEs} }

}

SSB-PositionsInBurst-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

SSBToReport-List ::= SEQUENCE (SIZE(1..maxnoofSSBAreas)) OF SSBToReport-List-Item

SSBToReport-List-Item ::= SEQUENCE {

sSBIndex INTEGER(0..63),

iE-Extensions ProtocolExtensionContainer { { SSBToReport-List-Item-ExtIEs} } OPTIONAL,

...

}

SSBToReport-List-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SUL-FrequencyBand ::= INTEGER (1..1024)

SUL-Information ::= SEQUENCE {

sulFrequencyInfo NRARFCN,

sulTransmissionBandwidth NRTransmissionBandwidth,

iE-Extensions ProtocolExtensionContainer { {SUL-Information-ExtIEs} } OPTIONAL,

...

}

SUL-Information-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-CarrierList CRITICALITY ignore EXTENSION NRCarrierList PRESENCE optional }|

{ ID id-FrequencyShift7p5khz CRITICALITY ignore EXTENSION FrequencyShift7p5khz PRESENCE optional },

...

}

SupportedSULBandList ::= SEQUENCE (SIZE(1..maxnoofNRCellBands)) OF SupportedSULBandItem

SupportedSULBandItem ::= SEQUENCE {

sulBandItem SUL-FrequencyBand,

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

...

}

SupportedSULBandItem-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SymbolAllocation-in-Slot ::= CHOICE {

allDL SymbolAllocation-in-Slot-AllDL,

allUL SymbolAllocation-in-Slot-AllUL,

bothDLandUL SymbolAllocation-in-Slot-BothDLandUL,

choice-extension ProtocolIE-Single-Container { {SymbolAllocation-in-Slot-ExtIEs} }

}

SymbolAllocation-in-Slot-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

SymbolAllocation-in-Slot-AllDL ::= SEQUENCE {

iE-Extension ProtocolExtensionContainer { {SymbolAllocation-in-Slot-AllDL-ExtIEs} } OPTIONAL,

...

}

SymbolAllocation-in-Slot-AllDL-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SymbolAllocation-in-Slot-AllUL ::= SEQUENCE {

iE-Extension ProtocolExtensionContainer { {SymbolAllocation-in-Slot-AllUL-ExtIEs} } OPTIONAL,

...

}

SymbolAllocation-in-Slot-AllUL-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SymbolAllocation-in-Slot-BothDLandUL ::= SEQUENCE {

numberofDLSymbols INTEGER (0..13),

numberofULSymbols INTEGER (0..13),

iE-Extension ProtocolExtensionContainer { {SymbolAllocation-in-Slot-BothDLandUL-ExtIEs} } OPTIONAL,

...

}

SymbolAllocation-in-Slot-BothDLandUL-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SDTSupportRequest ::= SEQUENCE {

sdtindicator SDTIndicator,

sdtAssistantInfo SDTAssistantInfo OPTIONAL,

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

...

}

SDTSupportRequest-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SDTIndicator ::= ENUMERATED {true, ...}

SDTAssistantInfo ::= ENUMERATED {single-packet, multiple-packets, ...}

SDT-Termination-Request ::= ENUMERATED {radio-link-problem, normal, ...}

SDTPartialUEContextInfo ::= SEQUENCE {

dRBsToBeSetup SDT-DRBsToBeSetupList,

sRBsToBeSetup SDT-SRBsToBeSetupList OPTIONAL,

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

...

}

SDTPartialUEContextInfo-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SDT-DRBsToBeSetupList ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF SDT-DRBsToBeSetupList-Item

SDT-DRBsToBeSetupList-Item ::= SEQUENCE {

drb-ID DRB-ID,

uL-TNLInfo UPTransportParameters,

dRB-RLC-Bearer-Configuration OCTET STRING,

dRB-QoS QoSFlowLevelQoSParameters,

rLC-Mode RLCMode,

pDCP-SNLength PDCPSNLength,

iE-Extensions ProtocolExtensionContainer { { SDT-DRBsToBeSetupList-Item-ExtIEs} } OPTIONAL,

...

}

SDT-DRBsToBeSetupList-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SDT-SRBsToBeSetupList ::= SEQUENCE (SIZE(1..maxnoofSRBs)) OF SDT-SRBsToBeSetupList-Item

SDT-SRBsToBeSetupList-Item ::= SEQUENCE {

srb-ID SRB-ID,

sRB-RLC-Bearer-Configuration OCTET STRING,

iE-Extensions ProtocolExtensionContainer { { SDT-SRBsToBeSetupList-Item-ExtIEs} } OPTIONAL,

...

}

SDT-SRBsToBeSetupList-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SRB-ID ::= INTEGER (0..4, ...)

SDTDataForwardingDRBList ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF SDTDataForwardingDRBList-Item

SDTDataForwardingDRBList-Item ::= SEQUENCE {

drb-ID DRB-ID,

dL-TNLInfo UPTransportParameters OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { SDT-SRBsToBeSetupList-Item-ExtIEs} } OPTIONAL,

...

}

-- T

-----------Skip unchanged------------

### 9.3.7 Constant definitions

-- ASN1START

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

--

-- Constant definitions

--

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

XnAP-Constants {

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

ngran-Access (22) modules (3) xnap (2) version1 (1) xnap-Constants (4) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

ProcedureCode,

ProtocolIE-ID

FROM XnAP-CommonDataTypes;

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

--

-- Elementary Procedures

--

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

id-handoverPreparation ProcedureCode ::= 0

id-sNStatusTransfer ProcedureCode ::= 1

id-handoverCancel ProcedureCode ::= 2

id-retrieveUEContext ProcedureCode ::= 3

id-rANPaging ProcedureCode ::= 4

id-xnUAddressIndication ProcedureCode ::= 5

id-uEContextRelease ProcedureCode ::= 6

id-sNGRANnodeAdditionPreparation ProcedureCode ::= 7

id-sNGRANnodeReconfigurationCompletion ProcedureCode ::= 8

id-mNGRANnodeinitiatedSNGRANnodeModificationPreparation ProcedureCode ::= 9

id-sNGRANnodeinitiatedSNGRANnodeModificationPreparation ProcedureCode ::= 10

id-mNGRANnodeinitiatedSNGRANnodeRelease ProcedureCode ::= 11

id-sNGRANnodeinitiatedSNGRANnodeRelease ProcedureCode ::= 12

id-sNGRANnodeCounterCheck ProcedureCode ::= 13

id-sNGRANnodeChange ProcedureCode ::= 14

id-rRCTransfer ProcedureCode ::= 15

id-xnRemoval ProcedureCode ::= 16

id-xnSetup ProcedureCode ::= 17

id-nGRANnodeConfigurationUpdate ProcedureCode ::= 18

id-cellActivation ProcedureCode ::= 19

id-reset ProcedureCode ::= 20

id-errorIndication ProcedureCode ::= 21

id-privateMessage ProcedureCode ::= 22

id-notificationControl ProcedureCode ::= 23

id-activityNotification ProcedureCode ::= 24

id-e-UTRA-NR-CellResourceCoordination ProcedureCode ::= 25

id-secondaryRATDataUsageReport ProcedureCode ::= 26

id-deactivateTrace ProcedureCode ::= 27

id-traceStart ProcedureCode ::= 28

id-handoverSuccess ProcedureCode ::= 29

id-conditionalHandoverCancel ProcedureCode ::= 30

id-earlyStatusTransfer ProcedureCode ::= 31

id-failureIndication ProcedureCode ::= 32

id-handoverReport ProcedureCode ::= 33

id-resourceStatusReportingInitiation ProcedureCode ::= 34

id-resourceStatusReporting ProcedureCode ::= 35

id-mobilitySettingsChange ProcedureCode ::= 36

id-accessAndMobilityIndication ProcedureCode ::= 37

id-partialUEContextTransfer ProcedureCode ::= xx

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

--

-- Lists

--

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

maxEARFCN INTEGER ::= 262143

maxnoofAllowedAreas INTEGER ::= 16

maxnoofAMFRegions INTEGER ::= 16

maxnoofAoIs INTEGER ::= 64

maxnoofBluetoothName INTEGER ::= 4

maxnoofBPLMNs INTEGER ::= 12

maxnoofCAGs INTEGER ::= 12

maxnoofCAGsperPLMN INTEGER ::= 256

maxnoofCellIDforMDT INTEGER ::= 32

maxnoofCellsinAoI INTEGER ::= 256

maxnoofCellsinUEHistoryInfo INTEGER ::= 16

maxnoofCellsinNG-RANnode INTEGER ::= 16384

maxnoofCellsinRNA INTEGER ::= 32

maxnoofCellsUEMovingTrajectory INTEGER ::= 16

maxnoofDRBs INTEGER ::= 32

maxnoofEUTRABands INTEGER ::= 16

maxnoofEUTRABPLMNs INTEGER ::= 6

maxnoofEPLMNs INTEGER ::= 15

maxnoofExtSliceItems INTEGER ::= 65535

maxnoofEPLMNsplus1 INTEGER ::= 16

maxnoofForbiddenTACs INTEGER ::= 4096

maxnoofFreqforMDT INTEGER ::= 8

maxnoofMBSFNEUTRA INTEGER ::= 8

maxnoofMDTPLMNs INTEGER ::= 16

maxnoofMultiConnectivityMinusOne INTEGER ::= 3

maxnoofNeighbours INTEGER ::= 1024

maxnoofNeighPCIforMDT INTEGER ::= 32

maxnoofNIDs INTEGER ::= 12

maxnoofNRCellBands INTEGER ::= 32

maxnoofPLMNs INTEGER ::= 16

maxnoofPDUSessions INTEGER ::= 256

maxnoofProtectedResourcePatterns INTEGER ::= 16

maxnoofQoSFlows INTEGER ::= 64

maxnoofQoSParaSets INTEGER ::= 8

maxnoofRANAreaCodes INTEGER ::= 32

maxnoofRANAreasinRNA INTEGER ::= 16

maxnoofRANNodesinAoI INTEGER ::= 64

maxnoofSCellGroups INTEGER ::= 3

maxnoofSCellGroupsplus1 INTEGER ::= 4

maxnoofSensorName INTEGER ::= 3

maxnoofSliceItems INTEGER ::= 1024

maxnoofSNPNIDs INTEGER ::= 12

maxnoofsupportedPLMNs INTEGER ::= 12

maxnoofsupportedTACs INTEGER ::= 256

maxnoofTAforMDT INTEGER ::= 8

maxnoofTAI INTEGER ::= 16

maxnoofTAIsinAoI INTEGER ::= 16

maxnooftimeperiods INTEGER ::= 2

maxnoofTNLAssociations INTEGER ::= 32

maxnoofUEContexts INTEGER ::= 8192

maxNRARFCN INTEGER ::= 3279165

maxNrOfErrors INTEGER ::= 256

maxnoofslots INTEGER ::= 5120

maxnoofExtTLAs INTEGER ::= 16

maxnoofGTPTLAs INTEGER ::= 16

maxnoofCHOcells INTEGER ::= 8

maxnoofPC5QoSFlows INTEGER ::= 2064

maxnoofSSBAreas INTEGER ::= 64

maxnoofRACHReports INTEGER ::= 64

maxnoofNRSCSs INTEGER ::= 5

maxnoofPhysicalResourceBlocks INTEGER ::= 275

maxnoofAdditionalPDCPDuplicationTNL INTEGER ::= 2

maxnoofRLCDuplicationstate INTEGER ::= 3

maxnoofWLANName INTEGER ::= 4

maxnoofNonAnchorCarrierFreqConfig INTEGER ::= 15

maxnoofDataForwardingTunneltoE-UTRAN INTEGER ::= 256

maxnoofSRBs INTEGER ::= 5

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

--

-- IEs

--

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

id-ActivatedServedCells ProtocolIE-ID ::= 0

id-ActivationIDforCellActivation ProtocolIE-ID ::= 1

id-admittedSplitSRB ProtocolIE-ID ::= 2

id-admittedSplitSRBrelease ProtocolIE-ID ::= 3

id-AMF-Region-Information ProtocolIE-ID ::= 4

id-AssistanceDataForRANPaging ProtocolIE-ID ::= 5

id-BearersSubjectToCounterCheck ProtocolIE-ID ::= 6

id-Cause ProtocolIE-ID ::= 7

id-cellAssistanceInfo-NR ProtocolIE-ID ::= 8

id-ConfigurationUpdateInitiatingNodeChoice ProtocolIE-ID ::= 9

id-CriticalityDiagnostics ProtocolIE-ID ::= 10

id-XnUAddressInfoperPDUSession-List ProtocolIE-ID ::= 11

id-DRBsSubjectToStatusTransfer-List ProtocolIE-ID ::= 12

id-ExpectedUEBehaviour ProtocolIE-ID ::= 13

id-GlobalNG-RAN-node-ID ProtocolIE-ID ::= 14

id-GUAMI ProtocolIE-ID ::= 15

id-indexToRatFrequSelectionPriority ProtocolIE-ID ::= 16

id-initiatingNodeType-ResourceCoordRequest ProtocolIE-ID ::= 17

id-List-of-served-cells-E-UTRA ProtocolIE-ID ::= 18

id-List-of-served-cells-NR ProtocolIE-ID ::= 19

id-LocationReportingInformation ProtocolIE-ID ::= 20

id-MAC-I ProtocolIE-ID ::= 21

id-MaskedIMEISV ProtocolIE-ID ::= 22

id-M-NG-RANnodeUEXnAPID ProtocolIE-ID ::= 23

id-MN-to-SN-Container ProtocolIE-ID ::= 24

id-MobilityRestrictionList ProtocolIE-ID ::= 25

id-new-NG-RAN-Cell-Identity ProtocolIE-ID ::= 26

id-newNG-RANnodeUEXnAPID ProtocolIE-ID ::= 27

id-UEReportRRCTransfer ProtocolIE-ID ::= 28

id-oldNG-RANnodeUEXnAPID ProtocolIE-ID ::= 29

id-OldtoNewNG-RANnodeResumeContainer ProtocolIE-ID ::= 30

id-PagingDRX ProtocolIE-ID ::= 31

id-PCellID ProtocolIE-ID ::= 32

id-PDCPChangeIndication ProtocolIE-ID ::= 33

id-PDUSessionAdmittedAddedAddReqAck ProtocolIE-ID ::= 34

id-PDUSessionAdmittedModSNModConfirm ProtocolIE-ID ::= 35

id-PDUSessionAdmitted-SNModResponse ProtocolIE-ID ::= 36

id-PDUSessionNotAdmittedAddReqAck ProtocolIE-ID ::= 37

id-PDUSessionNotAdmitted-SNModResponse ProtocolIE-ID ::= 38

id-PDUSessionReleasedList-RelConf ProtocolIE-ID ::= 39

id-PDUSessionReleasedSNModConfirm ProtocolIE-ID ::= 40

id-PDUSessionResourcesActivityNotifyList ProtocolIE-ID ::= 41

id-PDUSessionResourcesAdmitted-List ProtocolIE-ID ::= 42

id-PDUSessionResourcesNotAdmitted-List ProtocolIE-ID ::= 43

id-PDUSessionResourcesNotifyList ProtocolIE-ID ::= 44

id-PDUSession-SNChangeConfirm-List ProtocolIE-ID ::= 45

id-PDUSession-SNChangeRequired-List ProtocolIE-ID ::= 46

id-PDUSessionToBeAddedAddReq ProtocolIE-ID ::= 47

id-PDUSessionToBeModifiedSNModRequired ProtocolIE-ID ::= 48

id-PDUSessionToBeReleasedList-RelRqd ProtocolIE-ID ::= 49

id-PDUSessionToBeReleased-RelReq ProtocolIE-ID ::= 50

id-PDUSessionToBeReleasedSNModRequired ProtocolIE-ID ::= 51

id-RANPagingArea ProtocolIE-ID ::= 52

id-PagingPriority ProtocolIE-ID ::= 53

id-requestedSplitSRB ProtocolIE-ID ::= 54

id-requestedSplitSRBrelease ProtocolIE-ID ::= 55

id-ResetRequestTypeInfo ProtocolIE-ID ::= 56

id-ResetResponseTypeInfo ProtocolIE-ID ::= 57

id-RespondingNodeTypeConfigUpdateAck ProtocolIE-ID ::= 58

id-respondingNodeType-ResourceCoordResponse ProtocolIE-ID ::= 59

id-ResponseInfo-ReconfCompl ProtocolIE-ID ::= 60

id-RRCConfigIndication ProtocolIE-ID ::= 61

id-RRCResumeCause ProtocolIE-ID ::= 62

id-SCGConfigurationQuery ProtocolIE-ID ::= 63

id-selectedPLMN ProtocolIE-ID ::= 64

id-ServedCellsToActivate ProtocolIE-ID ::= 65

id-servedCellsToUpdate-E-UTRA ProtocolIE-ID ::= 66

id-ServedCellsToUpdateInitiatingNodeChoice ProtocolIE-ID ::= 67

id-servedCellsToUpdate-NR ProtocolIE-ID ::= 68

id-s-ng-RANnode-SecurityKey ProtocolIE-ID ::= 69

id-S-NG-RANnodeUE-AMBR ProtocolIE-ID ::= 70

id-S-NG-RANnodeUEXnAPID ProtocolIE-ID ::= 71

id-SN-to-MN-Container ProtocolIE-ID ::= 72

id-sourceNG-RANnodeUEXnAPID ProtocolIE-ID ::= 73

id-SplitSRB-RRCTransfer ProtocolIE-ID ::= 74

id-TAISupport-list ProtocolIE-ID ::= 75

id-TimeToWait ProtocolIE-ID ::= 76

id-Target2SourceNG-RANnodeTranspContainer ProtocolIE-ID ::= 77

id-targetCellGlobalID ProtocolIE-ID ::= 78

id-targetNG-RANnodeUEXnAPID ProtocolIE-ID ::= 79

id-target-S-NG-RANnodeID ProtocolIE-ID ::= 80

id-TraceActivation ProtocolIE-ID ::= 81

id-UEContextID ProtocolIE-ID ::= 82

id-UEContextInfoHORequest ProtocolIE-ID ::= 83

id-UEContextInfoRetrUECtxtResp ProtocolIE-ID ::= 84

id-UEContextInfo-SNModRequest ProtocolIE-ID ::= 85

id-UEContextKeptIndicator ProtocolIE-ID ::= 86

id-UEContextRefAtSN-HORequest ProtocolIE-ID ::= 87

id-UEHistoryInformation ProtocolIE-ID ::= 88

id-UEIdentityIndexValue ProtocolIE-ID ::= 89

id-UERANPagingIdentity ProtocolIE-ID ::= 90

id-UESecurityCapabilities ProtocolIE-ID ::= 91

id-UserPlaneTrafficActivityReport ProtocolIE-ID ::= 92

id-XnRemovalThreshold ProtocolIE-ID ::= 93

id-DesiredActNotificationLevel ProtocolIE-ID ::= 94

id-AvailableDRBIDs ProtocolIE-ID ::= 95

id-AdditionalDRBIDs ProtocolIE-ID ::= 96

id-SpareDRBIDs ProtocolIE-ID ::= 97

id-RequiredNumberOfDRBIDs ProtocolIE-ID ::= 98

id-TNLA-To-Add-List ProtocolIE-ID ::= 99

id-TNLA-To-Update-List ProtocolIE-ID ::= 100

id-TNLA-To-Remove-List ProtocolIE-ID ::= 101

id-TNLA-Setup-List ProtocolIE-ID ::= 102

id-TNLA-Failed-To-Setup-List ProtocolIE-ID ::= 103

id-PDUSessionToBeReleased-RelReqAck ProtocolIE-ID ::= 104

id-S-NG-RANnodeMaxIPDataRate-UL ProtocolIE-ID ::= 105

id-PDUSessionResourceSecondaryRATUsageList ProtocolIE-ID ::= 107

id-Additional-UL-NG-U-TNLatUPF-List ProtocolIE-ID ::= 108

id-SecondarydataForwardingInfoFromTarget-List ProtocolIE-ID ::= 109

id-LocationInformationSNReporting ProtocolIE-ID ::= 110

id-LocationInformationSN ProtocolIE-ID ::= 111

id-LastE-UTRANPLMNIdentity ProtocolIE-ID ::= 112

id-S-NG-RANnodeMaxIPDataRate-DL ProtocolIE-ID ::= 113

id-MaxIPrate-DL ProtocolIE-ID ::= 114

id-SecurityResult ProtocolIE-ID ::= 115

id-S-NSSAI ProtocolIE-ID ::= 116

id-MR-DC-ResourceCoordinationInfo ProtocolIE-ID ::= 117

id-AMF-Region-Information-To-Add ProtocolIE-ID ::= 118

id-AMF-Region-Information-To-Delete ProtocolIE-ID ::= 119

id-OldQoSFlowMap-ULendmarkerexpected ProtocolIE-ID ::= 120

id-RANPagingFailure ProtocolIE-ID ::= 121

id-UERadioCapabilityForPaging ProtocolIE-ID ::= 122

id-PDUSessionDataForwarding-SNModResponse ProtocolIE-ID ::= 123

id-DRBsNotAdmittedSetupModifyList ProtocolIE-ID ::= 124

id-Secondary-MN-Xn-U-TNLInfoatM ProtocolIE-ID ::= 125

id-NE-DC-TDM-Pattern ProtocolIE-ID ::= 126

id-PDUSessionCommonNetworkInstance ProtocolIE-ID ::= 127

id-BPLMN-ID-Info-EUTRA ProtocolIE-ID ::= 128

id-BPLMN-ID-Info-NR ProtocolIE-ID ::= 129

id-InterfaceInstanceIndication ProtocolIE-ID ::= 130

id-S-NG-RANnode-Addition-Trigger-Ind ProtocolIE-ID ::= 131

id-DefaultDRB-Allowed ProtocolIE-ID ::= 132

id-DRB-IDs-takenintouse ProtocolIE-ID ::= 133

id-SplitSessionIndicator ProtocolIE-ID ::= 134

id-CNTypeRestrictionsForEquivalent ProtocolIE-ID ::= 135

id-CNTypeRestrictionsForServing ProtocolIE-ID ::= 136

id-DRBs-transferred-to-MN ProtocolIE-ID ::= 137

id-ULForwardingProposal ProtocolIE-ID ::= 138

id-EndpointIPAddressAndPort ProtocolIE-ID ::= 139

id-IntendedTDD-DL-ULConfiguration-NR ProtocolIE-ID ::= 140

id-TNLConfigurationInfo ProtocolIE-ID ::= 141

id-PartialListIndicator-NR ProtocolIE-ID ::= 142

id-MessageOversizeNotification ProtocolIE-ID ::= 143

id-CellAndCapacityAssistanceInfo-NR ProtocolIE-ID ::= 144

id-NG-RANTraceID ProtocolIE-ID ::= 145

id-NonGBRResources-Offered ProtocolIE-ID ::= 146

id-FastMCGRecoveryRRCTransfer-SN-to-MN ProtocolIE-ID ::= 147

id-RequestedFastMCGRecoveryViaSRB3 ProtocolIE-ID ::= 148

id-AvailableFastMCGRecoveryViaSRB3 ProtocolIE-ID ::= 149

id-RequestedFastMCGRecoveryViaSRB3Release ProtocolIE-ID ::= 150

id-ReleaseFastMCGRecoveryViaSRB3 ProtocolIE-ID ::= 151

id-FastMCGRecoveryRRCTransfer-MN-to-SN ProtocolIE-ID ::= 152

id-ExtendedRATRestrictionInformation ProtocolIE-ID ::= 153

id-QoSMonitoringRequest ProtocolIE-ID ::= 154

id-FiveGCMobilityRestrictionListContainer ProtocolIE-ID ::= 155

id-PartialListIndicator-EUTRA ProtocolIE-ID ::= 156

id-CellAndCapacityAssistanceInfo-EUTRA ProtocolIE-ID ::= 157

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id-SDT-Termination-Request ProtocolIE-ID ::= xxx+2

id-SDTPartialUEContextInfo ProtocolIE-ID ::= xxx+3

id-SDTDataForwardingDRBList ProtocolIE-ID ::= xxx+4

END

-- ASN1STOP

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**--------------------------------------------------End of the change-----------------------------------------------------**