**3GPP TSG-RAN WG3 Meeting #116-e *R3-23853***

**E-meeting, 09 May – 19 May 2022**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.423** | **CR** | **0780** | **rev** | **1** | **Current version:** | **17.0.0** |  |
|  | | | | | | | | |
| *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:*** | Correction for RA-SDT in XnAP | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, China Telecom, China Unicom, Lenovo, Motorola Mobility | | | | | | | | | |
| ***Source to TSG:*** | R3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_SmallData\_INACTIVE-Core | | | | |  | ***Date:*** | | | 2022-5-16 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | **Issue 1 :** The procedure description added in 8.2.12.1 is applicable only for the RACH based SDT without relocation scenario which needs to be clarified.  **- Issue 1 description:**  The procedure description in the second paragraph of 8.2.12.1 is applicable only for the RACH based SDT without relocation scenario. This needs to be clarified.  **- proposal: Clarification in the procedure text is needed as follows.**  In case of RACH based SDT without UE context relocation, 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.  **Issue 2 :** The message name in 8.2.13.2 in the sentence below the figure is incorrect.  **- Issue 2 description:**  The message name in 8.2.13.2 in the sentence below the figure is incorrect and need to be corrected.  . **- proposal: Correct the message name in the procedure text as follows.**  The old NG-RAN node initiates the procedure by sending the PARTIAL UE CONTEXT TRANSFER ~~RETRIEVE REQUEST~~ message to the new NG-RAN node.  **Issue 3 :** The procedure description added in 8.3.9.1 is applicable only for the RACH based SDT without relocation scenario which needs to be clarified.  **- Issue 3 description:**  The procedure description in the second paragraph of 8.3.9.1 is applicable only for the RACH based SDT without relocation scenario. This needs to be clarified.  **- proposal: Clarification in the procedure text is needed as follows.**  In case of RACH based SDT without UE context relocation, Tthis procedure is also used to deliver a PDCP-C PDU encapsulating an NR RRC message between the new NG-RAN node and the old NG-RAN node.  **Issue 4 :** The use of RETRIEVE UE CONTEXT CONFIRM is applicable only for the RACH based SDT without relocation scenario and needs to be clarified.  **- Issue 4 description:**  The use of RETRIEVE UE CONTEXT CONFIRM is applicable only for the RACH based SDT without relocation scenario which needs to be clarified in 9.1.1.16  **- proposal: Clarification in the message description is needed as follows.**  In case of RACH based SDT without UE context relocation, 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  **Issue 5 :** The Partial UE Context Information for SDT IE within PARTIAL UE CONTEXT TRANSFER message should have presence M.  **- Issue 5 description:**  The Partial UE Context Information for SDT IE within PARTIAL UE CONTEXT TRANSFER message should have presence Mas it does not make sense to receive this message without the Partial UE Context Information for SDT IE  **- proposal: The presence of Partial UE Context Information for SDT IE within PARTIAL UE CONTEXT TRANSFER message should be changed from O to M.**  **Issue 6 :** Criticality Diagnostics IE is missing in PARTIAL UE CONTEXT TRANSFER ACKNOWLEDGE message.  **- Issue 6 description:**  Criticality Diagnostics IE is missing in PARTIAL UE CONTEXT TRANSFER ACKNOWLEDGE message.  **- proposal: Add Criticality Diagnostics IE in PARTIAL UE CONTEXT TRANSFER ACKNOWLEDGE message .**  **Issue 7 :** The use of RRC TRANSFER is applicable only for the RACH based SDT without relocation scenario and needs to be clarified.  **- Issue 7 description:**  The use of RRC TRANSFER is applicable only for the RACH based SDT without relocation scenario which needs to be clarified in 9.1.2.20  **- proposal: Clarification in the message description is needed as follows.**  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 in case of RACH based SDT without UE context relocation.  **Issue 8 :** In Partial UE Context Information for SDT IE the SDT DRBs To Be Setup List should have the range 0..1 instead of 1  **- Issue 8 description:**  In Partial UE Context Information for SDT IE defined in 9.2.3.164 the SDT DRBs To Be Setup List should have the range 0..1 as in case only SDT SRB is configured, then there is no need to have this list.  **- proposal: The range for SDT DRBs To Be Setup List is changed from 1 to 0..1.** | | | | | | | | |
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| ***Summary of change:*** | | Corrections as indicated in the proposals above and shown in the various sections of specification listed in the “Clause affected” field | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | 38.423 Specification remains erroneous and unclear. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 8.2.12.1, 8.2.13.2, 8.3.9.1, 9.1.1.16, 9.1.1.17, 9.1.1.18, 9.1.2.20, 9.2.3.164, 9.3.4, 9.3.5 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

-------------------------------------------Begin Change-------------------------------------------

### 8.2.12 Retrieve UE Context Confirm

#### 8.2.12.1 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 without UE context relocation, 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.

#### 8.2.12.2 Successful Operation



Figure 8.2.12.2-1: 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].

#### 8.2.12.3 Unsuccessful Operation

Not applicable.

#### 8.2.12.4 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.

### 8.2.13 Partial UE Context Transfer

#### 8.2.13.1 General

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

The procedure uses UE-associated signalling.

#### 8.2.13.2 Successful Operation



Figure 8.2.13.2-1: Partial UE Context Transfer, successful operation

The old NG-RAN node initiates the procedure by sending the PARTIAL UE CONTEXT TRANSFER 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.

#### 8.2.13.3 Unsuccessful Operation



Figure 8.2.13.3-1: 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.

#### 8.2.13.4 Abnormal Condition

Void.

-------------------------------------------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.

In case of RACH based SDT without UE context relocation, this procedure is also used to deliver a PDCP-C PDU encapsulating an 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 8.3.9.2-2: 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.

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#### 9.1.1.16 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 without UE context relocation, 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 |

#### 9.1.1.17 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 | M |  | 9.2.3.164 |  | YES | ignore |

#### 9.1.1.18 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 |  | – |  |
| Criticality Diagnostics | O |  | 9.2.3.3 |  | YES | ignore |

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

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#### 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 in case of RACH based SDT without UE context relocation.

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-------------------------------------------

#### 9.2.3.164 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 |
| **SDT DRBs To Be Setup List** |  | *0..1* |  |  | YES | ignore |
| **>SDT 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 |  | – |  |
| >>DRB RLC Bearer Configuration | M |  | OCTET STRING | *RLC-BearerConfig* IE defined in subclause 6.3.2 of TS 38.331 [10] | – |  |
| >>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 |  | – |  |
| **SDT SRBs to Be Setup List** |  | *0..1* |  |  | YES | ignore |
| **>SDT SRBs to Be Setup Item** |  | *1 .. <maxnoofSRBs>* |  |  | – |  |
| >>SRB ID | M |  | 9.2.3.165 | In this version of the specification, values "0", "3", and "4" shall not be set by the sender and ignored by the receiver. | – |  |
| >>SRB RLC Bearer Configuration | M |  | OCTET STRING | RLC-BearerConfig IE defined in subclause 6.3.2 of TS 38.331 [10]. | – |  |

|  |  |
| --- | --- |
| Range bound | Explanation |
| 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. |

-------------------------------------------Next Change-------------------------------------------

### 9.3.4 PDU Definitions

-- ASN1START

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

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-- PDU definitions for XnAP.

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

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,

//skip unchanged part

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

--

-- 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 mandatory },

...

}

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

--

-- 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 }|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics 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 },

...

}

-------------------------------------------Next Change-------------------------------------------

### 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,

id-Additional-UL-NG-U-TNLatUPF-List,

//skip unchanged part

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

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

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

SDTPartialUEContextInfo ::= SEQUENCE {

dRBsToBeSetup SDT-DRBsToBeSetupList OPTIONAL,

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,

s-nssai S-NSSAI,

pDCP-SNLength PDCPSNLength,

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

...

}

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

...

}

-------------------------------------------End of the Changes-------------------------------------------