**3GPP TSG-RAN WG3 Meeting #123 *R3-240655***

**Athens, GR, 26 Feb – 01 Mar, 2024**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** |  | **rev** | **1** | **Current version:** | **18.0.0** |  |
|  | | | | | | | | |
| *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 on SDT | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, Nokia, Nokia Shanghai Bell | | | | | | | | | |
| ***Source to TSG:*** | R3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_MT\_SDT-Core | | | | |  | ***Date:*** | | | 2024-01-19 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***Release:*** | | |  |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | There are some errors for SDT as follows:   * For in case of CG-SDT, the DU should store the “CG-SDT-CS-RNTI” instead of “CS-RNTI”, they are two different identifiers which may be allocated for the same UE in the meantime.   The following can be found in TS 38.300: 8.1 UE Identities In this clause, the identities used by NR connected to 5GC are listed. For scheduling at cell level, the following identities are used:  - C-RNTI: unique UE identification used as an identifier of the RRC Connection and for scheduling;  - CG-SDT-CS-RNTI: unique UE identification used for Configured Grant-based SDT in the uplink;  - CI-RNTI: identification of cancellation in the uplink;  - CS-RNTI: unique UE identification used for Semi-Persistent Scheduling in the downlink or configured grant in the uplink;   * “,”and “…” are missing in asn.1 part of MT-SDT-Information type definition. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | * Change the store of “CS-RNTI” to “CG-SDT-CS-RNTI”. * Add “,”and “…” in asn.1 part of MT-SDT-Information type definition. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Errors remain in SDT. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 3.2, 8.3.3, 9.4.5 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

***-------------Start of the First Change---------------***

3.2 Abbreviations

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

5GC 5G Core Network

5QI 5G QoS Identifier

A2X Aircraft-to-Everything

AMF Access and Mobility Management Function

ARP Antenna Reference Point

ARPI Additional RRM Policy Index

BH Backhaul

CAG Closed Access Group

CN Core Network

CG Cell Group

CG-SDT Configured Grant-Small Data Transmission

CGI Cell Global Identifier

CHO Conditional Handover

CP Control Plane

CPA Conditional PSCell Addition

CPC Conditional PSCell Change

CS-RNTI Configured Scheduling RNTI

DAPS Dual Active Protocol Stack

***-------------Start of the Next Change---------------***

### 8.3.3 UE Context Release (gNB-CU initiated)

#### 8.3.3.1 General

The purpose of the UE Context Release procedure is to enable the gNB-CU to order the release of the UE-associated logical connection or candidate cells in conditional handover or conditional PSCell addition or conditional PSCell change or LTM or subsequent CPAC. The procedure uses UE-associated signalling.

#### 8.3.3.2 Successful Operation



Figure 8.3.3.2-1: UE Context Release (gNB-CU initiated) procedure. Successful operation

The gNB-CU initiates the procedure by sending the UE CONTEXT RELEASE COMMAND message to the gNB-DU.

Upon reception of the UE CONTEXT RELEASE COMMAND message, the gNB-DU shall release all related signalling and user data transport resources and reply with the UE CONTEXT RELEASE COMPLETE message. If the *CG-SDT Kept Indicator* IE is contained in the UE CONTEXT RELEASE COMMAND message and set to "true", the gNB-DU shall, if supported, consider that the UE is sent to RRC\_INACTIVE state with CG-SDT configuration and store the configured CG-SDT resources, C-RNTI, CG-SDT-CS-RNTI, the CG-SDT related RLC configurations and F1-U connections associated with the SDT bearers while releasing the UE context.

If the *old gNB-DU UE F1AP ID* IE is included in the UE CONTEXT RELEASE COMMAND message, the gNB-DU shall additionally release the UE context associated with the old gNB-DU UE F1AP ID.

If the UE CONTEXT RELEASE COMMAND message contains the *RRC-Container IE*, the gNB-DU shall send the RRC container to the UE via the SRB indicated by the *SRB ID* IE.

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

If the *Candidate Cells To Be Cancelled List* IE is included in the UE CONTEXT RELEASE COMMAND message, the gNB-DU shall consider that the gNB-CU is cancelling only the conditional handover or conditional PSCell addition or conditional PSCell change or subsequent CPAC associated to the cells identified by the included NR CGIs and associated to the UE-associated signaling identified by the *gNB-CU UE F1AP ID* IE and the *gNB-DU UE F1AP ID* IE.

If the *Positioning Context Reservation Indication* IE is included in the UE CONTEXT RELEASE COMMAND message, the gNB-DU shall not release the positioning context including the SRS configuration for the UE.

If the *LTM Cells To Be Released List* IE is included in the UE CONTEXT RELEASE COMMAND message, the gNB-DU shall, if supported, consider that the gNB-CU is cancelling only the LTM cells identified by the included NR CGIs and associated to the UE-associated signaling identified by the *gNB-CU UE F1AP ID* IE and the *gNB-DU UE F1AP ID* IE.

If the *Recommended SSBs for Paging List* IE is included in the UE CONTEXT RELEASE COMPLETE message, the gNB-CU shall, if supported, store it and may use it as assistance information for subsequent paging.

***-------------Start of the Next Change---------------***

### 9.4.5 Information Element Definitions

-- ASN1START

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-- Information Element Definitions

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

F1AP-IEs {

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

ngran-access (22) modules (3) f1ap (3) version1 (1) f1ap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

id-gNB-CUSystemInformation,

id-HandoverPreparationInformation,

id-TAISliceSupportList,

id-RANAC,

id-BearerTypeChange,

id-Coverage-Modification-Cause,

id-Cell-Direction,

***//skip unchanged part***

MT-SDT-Information ::= SEQUENCE {

mt-SDT-Indicator MT-SDT-Indicator,

iE-Extensions ProtocolExtensionContainer { { MT-SDT-Information-ExtIEs } } OPTIONAL,

...

}

MT-SDT-Information-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

...

}

MT-SDT-Indicator ::= ENUMERATED {true, ...}

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