**3GPP TSG-RAN WG3 Meeting #114-e *R3-216207***

**E-meeting, 1-11 November 2021**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.420** | **CR** | **0023** | **rev** | **0** | **Current version:** | **16.0.0** |  |
|  | | | | | | | | |
| *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:*** | CPAC BL CR to TS 38.420 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Lenovo, Motorola Mobility | | | | | | | | | |
| ***Source to TSG:*** | R3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | LTE\_NR\_DC\_enh2-Core | | | | |  | ***Date:*** | | | 2021-11-11 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | Add the support of CPAC. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Include the CPC cancel procedure | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | CPAC cannot be supported. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.2.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 Changes-----------------------------------

# 6 Xn interface procedures

## 6.1 General

The Xn interface supports procedures over the control plane (Xn-C) and user plane (Xn-U).

## 6.2 Control plane protocol procedures

### 6.2.1 Mobility management procedures

The mobility management procedures are used to manage the UE mobility in Connected or RRC\_Inactive modes:

- Handover Preparation

- Handover Cancel

- SN Status Transfer

- Retrieve UE Context

- RAN Paging

- Xn-U Address Indication

- UE Context Release

- Handover Success Indication

- Conditional Handover Cancel

### 6.2.2 Dual Connectivity procedures

The dual connectivity procedures are used to add, modify and releases resources for the operation of Dual Connectivity:

- S-NG-RAN-node Addition Preparation

- S-NG-RAN-node Reconfiguration Completion

- M-NG-RAN-node initiated S-NG-RAN-node Modification Preparation

- S-NG-RAN-node initiated S-NG-RAN-node Modification

- M-NG-RAN-node initiated S-NG-RAN-node Release

- S-NG-RAN-node initiated S-NG-RAN-node Release

- S-NG-RAN-node Counter Check

- RRC Transfer

- Notification Control Indication

- Activity Notification

- Secondary RAT Data Usage Report

- Conditional PSCell Change Cancel

### 6.2.3 Global procedures

The global procedures are used to exchange configuration level data between two NG-RAN nodes, or to remove Xn connectivity between two NG-RAN nodes in a controlled manner:

- Xn Setup

- NG-RAN-node Configuration Update

- Xn Removal

### 6.2.4 Interface Management procedures

The interface management procedures are used to align resources between two NG-RAN nodes in the event of failures, and to report detected protocol errors:

- Reset

- Error Indication

### 6.2.5 Energy saving procedures

- Cell Activation procedure: enables an NG-RAN node to request the activation of a previously deactivated cell hosted in another NG-RAN node.

### 6.2.6 Resource coordination procedures

- E-UTRA - NR Cell Resource Coordination procedure: enables an ng-eNB and a gNB to interact for resource coordination purposes.

### 6.2.7 UE Tracing procedures

The following procedures are used to trace the UE:

- Trace Start procedure

- Deactivate Trace procedure

### 6.2.8 Load management procedures

The load management procedures are used by NG-RAN nodes to indicate resource status, overload and traffic load to each other.

- Resource Status Reporting Initiation

- Resource Status Reporting

### 6.2.9 Data exchange for self-optimisation procedures

The data exchange for self-optimisation procedures are used to transfer failure and mobility related information among NG-RAN nodes to enable self-optimisation

- Failure Indication

- Handover report

- Mobility Settings Change

- Access and Mobility Indication

## 6.3 User plane protocol procedures

The user plane protocol procedures are used to exchange user plane information between Xn-U protocol peers:

- Transfer of Downlink User Data procedure: enables the node hosting the NR PDCP entity to provide user plane information to the corresponding node.

- Downlink Data Delivery Status procedure: enables the corresponding node to provide feedback to the node hosting the NR PDCP entity.

- Transfer of Assistance Information: enables the corresponding node to provide assistance information to the node hosting the NR PDCP entity.

- Transfer of PDU Session Information procedure: enables an NG-RAN node to provide user plane information associated with the forwarding of data towards a peer NG-RAN node, when using PDU session tunnels.

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