**3GPP TSG-RAN WG3 #114eR3-21xxxx**

**Online, 1st – 11th November 2021**

**Agenda Item: 14.3**

**Source: Lenovo, Motorola Mobility**

**Title: (TP for 38.420 CPAC BL CR) CPC cancel**

**Document for: Discussion and Approval**

# 1 Introduction

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