**3GPP TSG-RAN WG3 Meeting #119 R3-23xxxx**

**Athens, GR, 27 Feb – 03 Mar, 2023**

**Title:** (TP for L1L2Mob BLCR for TS 38.401): BLCR update with latest agreements for inter-DU LTM

**Source:** Huawei

**Agenda item:** 14.2

**Document Type:** Other

# 1. Introduction

This document is a TP to stage 2 BLCR to reflect the following agreement:

#118 meeting

*For inter-DU case, the target gNB-DU indicates the gNB-CU about the UE successful access to the target cell by Access Success message.*

#119 meeting

* For inter-DU LTM, the gNB-CU assigns a new UL GTP TEID for each DRB and provides it to the target gNB-DU via UE Context Setup Request message(s). The target gNB-DU assigns the new DL GTP TEIDs per DRB per candidate cell and provides them back to the gNB-CU in UE Context Setup Response message(s).

It is proposed to agree on the TP in Annex to reflect the agreements mentioned above. Also some changes for intra DU LTM procedure are made for term alignment purpose.

# Annex – TP for LTM BLCR for TS 38.401

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

8.2.1.Y Inter-gNB-DU L1/L2 Triggered Mobility

This procedure is used for the case when the UE moves from one gNB-DU to another gNB-DU within the same gNB-CU during NR operation for L1/L2 Triggered Mobility. Figure 8.2.1.Y-1 shows the inter-gNB-DU L1/L2 Triggered Mobility procedure for intra-NR.



**Figure 8.2.1.Y-1: inter gNB-DU L1/L2 Triggered Mobility**

1. The UE sends a *MeasurementReport* message (L3 measurement result FFS) to the source gNB-DU containing measurements of neighboring cells. The source gNB-DU sends an UL RRC MESSAGE TRANSFER message conveying the received *MeasurementReport* message to the gNB-CU.
2. The gNB-CU determines to initiate L1/L2triggered mobility configuration.
3. The gNB-CU sends a UE CONTEXT SETUP REQUEST message to the candidate gNB-DU, containing the target candidate cells, and the UL GTP-U TEID.

FFS for Step 3 and Step 4: either a single or multiple UE Context Setup procedure(s) should be used.

1. If the candidate gNB-DU decides to accept the request of LTM configuration, it responds to the gNB-CU with a UE CONTEXT SETUP RESPONSE message including the generated lower layer RRC configuration for the accepted target candidate cell(s), and the DL GTP-U TEID for each bearer per candidate cell(s).
2. The gNB-CU sends a DL RRC MESSAGE TRANSFER message to the source gNB-DU, which includes the generated *RRCReconfiguration* message with the L1/L2 inter-cell mobility configuration.

FFS: whether it is DL RRC MESSAGE TRANSFER message or UE Context Modification Request message.

1. The source gNB-DU forwards the received *RRCReconfiguration* message to the UE.
2. The UE responds to the source gNB-DU with an *RRCReconfigurationComplete* message.
3. The source gNB-DU forwards the *RRCReconfigurationComplete* message to the gNB-CU via an UL RRC MESSAGE TRANSFER message.

FFS: whether it is UL RRC MESSAGE TRANSFER message or UE Context Modification Response message.

1. The UE sends lower layer measurement result to the source gNB-DU.
2. The source gNB-DU decides to execute L1/L2 triggered mobility to a candidate target cell.

FFS: Notifying the LTM cell switch decision to the other nodes as well.

1. The source gNB-DU sends L1/L2 Triggered Mobility command to the UE.

Editor’s note: the order of step 10 and 11 is not defined. The cell switch command message needs to be updated according to RAN2’s discussion.

1. FFS: how the target gNB-DU detects the UE access and whether there is an F1 impact.
2. The target gNB-DU sends the ACCESS SUCCESS message to the gNB-CU with the target Cell ID.
3. FFS: For inter-DU L1/L2 Triggered Mobility, whether and how to release the source cell/prepared cells’ resources in the source gNB-DU is FFS.

**--------------------------------------------------------- the end of change -------------------------------------------------------------**