3GPP TSG-RAN WG2 #131 R2-25xxxxx

**Bengaluru, India, 25th – 29th August 2025**

Agenda Item: x.x.x

Source: Ericsson

Title: List of open issues for mobility phase4

Document for: Discussion

# 1 Introduction

This document is to collect possible remaining open issues to complete the WI.

# 2 Open issues

Companies are invited to mention possible open issues **which are critical** for the conclusion of the WI.

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| --- | --- | --- |
| Company (Name) | Open issue | Justification |
| Fujitsu, NTT DOCOMO | NW should be able to distinguish between CLTM and fast recovery after CLTM failure in order to deal with SN gap caused by SRB COUNT continuation when UE is performing fast recovery. If reordering timer (*t-Reordering*) on NW-side is set for a long duration, because NW must wait for the duration before receiving *RRCReconfigurationComplete* in RRC layer and sending contention resolution to the UE, T304 in the UE may expire, which results in fast recovery failure. In Rel-18, RAN2 agreed to deal with SN gap by NW implementation, and that can be done because LTM and fast recovery can be distinguished. However, in Rel-19, CLTM and fast recovery after CLTM failure cannot be distinguished, which is an open issue. | This issue is critical for operators which configures long reordering timer. If this is not resolved, this leads to failure of fast recovery after CLTM and interruption time longer than the duration of reordering timer. |
| Ofinno | According to the current running CR, UE starts performing CLTM condition evaluation only in 2 cases:  Start case 1) if the received LTM-Config includes the field ltm-ServingCellExecutionCondition set to setup  Start case 2) On executing LTM to a candidate cell and ltm-ExecutionCondition is configured within the LTM-Candidate IE for the selected LTM candidate configuration  There are 2 scenarios where the CLTM condition evaluation is stopped:  Stop case 1) During CLTM execution. In this case, the UE restarts performing the CLTM evaluation after applying the candidate cell configuration, according to Start case 2 above.  Stop case 2) On initiating MCG failure information procedure. In this case, the current running CR does not have a procedure for the UE to resume/ start performing the CLTM condition evaluation.  We think the UE should resume CLTM condition evaluation after successful recovery from MCG failure RRC reconfiguration for MCG is received while T316 is running;  Alternatively, the handling of CLTM condition evaluation during MCG failure information procedure can be simplified if the UE ensures that CLTM is only executed when timer T316 is not running. | If this issue is not address, UE will cannot perform CLTM condition evaluation/ CLTM execution until an network sends an RRC reconfiguration message including ltm-config comprising the field ltm-ServingCellExecutionCondition set to setup. |
| LGE | Based on the lateast RRC running CR (i.e., v22), L1 condition for CLTM evaluation is associated with an event for L1 MR (i.e., EventLTM3/4/5). This implies that both L1 MR and CLTM execution are simultaneously triggered if the event is satisfied.  To avoid simultaneous trigger of L1 MR and CLTM execution, it is good to introduce separate events for CLTM evaluation as in CHO (i.e., CondEventLTM3/4/5). | If this open issue is not addressed, UE triggers both L1 MR and CLTM execution simultaneously when the event associated with L1 execution condition is being satisfied. |
| LGE | Based on the RRC running CR v22, a redundant secondary key update can happen during subsequent MCG LTM cell switch in DC case.  For example, consider the case where Cell#1 belonging to CU#1 is the current serving cell, Cell#2 and Cell#3 belonging to CU#2 are LTM candidate cells, and DC is configured. In this case, LTM candidiate configuration for Cell#2 and Cell#3 include the sk-Counter for secondary key update during inter-CU MCG LTM. When subsequent LTM cell switch, i.e., Cell#1 🡪 Cell#2 🡪 Cell#3, happens, a redundant secondary key update is performed during the LTM cell switch from Cell#2 to Cell#3.This is because secondary key update during MCG cell switch depends only on whether sk-Counter is included into the target(candidate) configuration.  To address the issue, the procedure 5.3.5.3 should considers that secondary key update during subsequent MCG LTM cell switches with DC (i.e., SN is not changed) is performed only if MN security update is performed during an MCG LTM cell switch. Otherwise, the network should ensure that secondary key update at intra-CU LTM will not happen during subsequent LTM cell switches in mixture of intra-CU LTM and inter-CU LTM with DC (i.e., SN is not changed). | If this open issue is not addressed, a redundant secondary key update can happen during subsequent MCG LTM cell switch in DC case. The redundant secondary key can finally lead to data interruption due to key refresh. |
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# 3 Conclusion

According to what has what has been discussed in section 2:

1. aaa

# References