3GPP TSG-RAN WG2 Meeting #125bis R2-240xxx

Changsha, China, April 15th – 19th, 2024

Title Report from session on Mobility Enh and Mobile IAB

Source Session Chair (MediaTek Johan)

Agenda 9.5

Offline discussions

* [AT125bis][501][mIAB] (ZTE)

 Scope: Based on R2-2403576, determine agreeable part, agreeable text

 Intended outcome: revised agreeable 38300 CR, report if needed.

 Deadline: CB Thursday, see schedule.

* [AT125bis][502][R18Mob] EMR and reselection Measurement reporting (Nokia)

 Scope: The mechanism marked “offline” in session Notes above. Identify the options to consider, converge as far as possible / reasonable.

 Intended outcome: Report, TP if possible

 Deadline: CB, see schedule

* [AT125bis][503][R18Mob] MAC (Huawei)

 Scope: AI 7.4.4: Treat/discuss non-TP-centric parts for items marked “offline” (either whole paper or certain proposals of a paper). Can also attempt to get on the same page wrt applicability of RACH-config-dedicated, e.g. for CFRA indicated in the MAC CE.

 Intended outcome: Report

 Deadline: CB, see schedule

* [AT125bis][504][R18 Mob] (ZTE)

 Intended outcome: Agreeable TP, Draft LS out

 Deadline: CB, friday

Post-meeting Email Discussions

* [Post125bis][510][R18Mob] RRC CR (Ericsson)

 Scope: Address and Converge on indicated points. Cover meeting agreements.

 Intended outcome: Agreed-in-principal CR, updated RIL list, report if needed.

 Deadline: Short

* [Post125bis][511][R18Mob] 37340 CR (ZTE)

 Scope: Treat R2-2402747. Include specifically indicated point. Can cover other meeting agreements, if any and if agreeable, up to rapporteur.

 Intended outcome: Agreed-in-principal CR 37340

 Deadline: Short

* [Post125bis][512][R18Mob] 38300 CR (MediaTek)

 Scope: Treat R2-2402995. Can cover other meeting agreements, if any and if agreeable, up to rapporteur.

 Intended outcome: Agreed-in-principal CR 38300.

 Deadline: Short

* [Post125bis][513][R18Mob] Idle/Inactive and Reselection Meas Reporting CR (Nokia)

 Scope: Cover meeting agreements

 Intended outcome: Agreed-in-principal CR 38331.

 Deadline: Short

* [Post125bis][514][R18Mob] MAC CR (Huawei)

 Scope: Treat R2-2403287. Cover meeting agreements. Based on non-treated tdocs/proposals, companies can also input non-controversial text enhancements (early, at start of email).

 Intended outcome: Agreed-in-principal CR 38321.

 Deadline: Short

* [Post125bis][515][R18Mob] LS out on UE caps / Features (Intel)

 Scope: LS to R1 and R4 according to meeting agreements / discussion

 Intended outcome: Approved LS out. .

 Deadline: Short

* [Post125bis][516][R18Mob] UE cap CRs (Intel)

 Scope: Cover meeting agreements.

 Intended outcome: Agreed-in-principal CRs 38306, 38331.

 Deadline: Long

* [Post125bis][517][mIAB] RRC CR (Ericsson)

 Scope: Cover meeting agreements.

 Intended outcome: Agreed-in-principal CR 38331.

 Deadline: Short

## 7.4 Further NR mobility enhancements

(NR\_Mob\_enh2-Core; leading WG: RAN2; REL-18; WID:RP-233970)

Time budget: 0 TU)

Tdoc Limitation: 5 tdocs (if you want to input beyond the tdoc limitation, please cooperate with CR Rapporteurs).

Offline = considered offline: Ph1, determine agreeable part (if any), Ph2 CR/TP

### 7.4.1 Organizational

Including LSs.

LS in

R2-2402117 LS on TCI state after cell switch command for LTM R1-2401785; contact: Fujitsu RAN1 LS in Rel-18 NR\_Mob\_enh2-Core To:RAN2

- Fujitsu think R2 don’t need to update any TS.

* No need to update RAN2 TS
* noted

[R2-2402131](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402131.zip) LS on R18 mobility - Improvement on SCell/SCG setup delay (R4-2403549; contact: Apple) RAN4 LS in Rel-18 NR\_Mob\_enh2-Core To:RAN2

- NO further action needed. Already included by UE caps rapporteur

* noted

Other

[R2-2403174](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403174.zip) Miscellaneous corrections on further mobility enhancements in NR Ericsson CR Rel-18 38.331 18.1.0 4705 - F NR\_Mob\_enh2-Core Late

- Includes the propAgree RILs below.

- HW think the CR uses presence condition too much. For most fields there are many cases when not needed, and usually it is not possible to cover all cases. Better to just describe.

* Will review further post email disc
* [Post125bis][510][R18Mob] RRC CR (Ericsson)

 Scope: Address and Converge on indicated points. Cover meeting agreements.

 Intended outcome: Agreed-in-principal CR, updated RIL list, report if needed.

 Deadline: Short

[R2-2403175](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403175.zip) RILs conclusions for feMob Ericsson discussion Rel-18 NR\_Mob\_enh2-Core Late

PropAgree: X121 [X122, X123], M020, E232, E202, E219 [O204], E233, E204, C128 [M023], H083, H114 [O203], E234, E237, M022, H093, S810, Z045, H143, E217, N112, Z047, M024, E238, E239, E209, E210, E211, E212, H092 [F036], H091 [F036], M025, M026, M027, M029, M028, E241

PropReject, and no tdocs: E203, N092, E206, E207, E208, G126, O205, H086, N134, E213,

- Session Chair wonder if we can ack that the propAgreed issues shall be resolved.

- HW think there is one case when the RIL proposed to remove the word valid, which seemed wrong. This propAgreed issue need to be revisited.

* Noted, except comment, assume all listed propAgreed issues shall be addressed.

[R2-2403176](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403176.zip) Discussion on RILs conclusion Mobillity Ericsson discussion Rel-18 NR\_Mob\_enh2-Core Late

### 7.4.2 Stage-2 Corrections

Corrections to 38300 (MTK) and 37340 (ZTE) and stage-2 centric issues (including tdocs on stage-2 centric issue that also impact other TS). Preferably work with CR Rapporteurs for Stage-2 corrections instead of separate CRs. only

Offline

[R2-2402747](file:///C%3A%5C%5CUsers%5C%5Cmtk65284%5C%5CDocuments%5C%5C3GPP%5C%5Ctsg_ran%5C%5CWG2_RL2%5C%5CRAN2%5C%5CDocs%5C%5CR2-2402747.zip%22%20%5Co%20%22C%3AUsersmtk65284Documents3GPPtsg_ranWG2_RL2RAN2DocsR2-2402747.zip) Miscellaneous corrections for mobility enhancements in TS 37.340 ZTE Corporation CR Rel-18 37.340 18.1.0 0391 - F NR\_Mob\_enh2-Core

* [Post125bis][511][R18Mob] 37340 CR (ZTE)

 Scope: Treat R2-2402747. Include specifically indicated point. Can cover other meeting agreements, if any and if agreeable, up to rapporteur.

 Intended outcome: Agreed-in-principal CR 37340

 Deadline: Short

[R2-2402995](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402995.zip) Misc corrections on LTM MediaTek Inc., Ericsson CR Rel-18 38.300 18.1.0 0842 - F NR\_Mob\_enh2-Core

Session Chair: the above two tdocs Addressed in Post meeting email discussions

* [Post125bis][512][R18Mob] 38300 CR (MediaTek)

 Scope: Treat R2-2402995. Can cover other meeting agreements, if any and if agreeable, up to rapporteur.

 Intended outcome: Agreed-in-principal CR 38300.

 Deadline: Short

### 7.4.3 RRC Corrections

RRC corrections and Control Plane Centric Issues (including tdocs on control plane centric issue that also impact other TS). Including ASN.1 review issues and their resolutions.

#### 7.4.3.1 L1L2 Triggered Mobility

RILs

PropDisc:

 S792 SRB3 release during SCPAC and LTM (Samsung, Nokia, Ericsson),

 E231/E074 Transaction ID etc (Ericsson, CATT, Apple),

E068 Security Config for bearer setup in candidate config (ericsson, CATT, MTK, Huawei, Nokia)

E240 Erroneous RA-RNTI forward target to src DU (Ericsson)

C127 [F034, M021] Issue with Continue Count (CATT, Fujitsu, MediaTek),

C129 Multiple LTE recovery attempts (CATT)

 H096 Associated with the MCG vs. not associated with any CG (Huawei),

(no tdoc) E236 misplaced release config, E235 clarification of SRBDRB using master key / secondary key (Ericsson)

PropReject but covered in tdocs:

 G125 LTM cell switch confirm while MCG is not avilable (Google),

 B120 B121 LTM – Cond Config Coex Execution Race conditions (Lenovo),

 N133 Reference Configuration application (Nokia),

 F031 FD for CFRA erroneous [F032] F033 FD CFRA add condition from 38300 (Fujitsu),

 F035 State variable continuation at LTM fast recovery (Fujitsu),

 H095 H094 LTM TCI Config (Huawei),

[R2-2403653](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403653.zip) [S792] SRB3 release during SCPAC and LTM Samsung discussion Late

DISCUSSION

- Ericsson tend to agree, not sure how to capture, if stage-3 or stage-2. CATT agrees

- HW think that for LTM there is no issue, as we only do intra-DU, think nothing is needed for other

Cases either, as for SCPAC the messages are on SRB1 anyway.

- Xiaomi think HW are correct, b ut need to handle also the case of SRB3 release in the middle.

- Ericsson think that from candidate config point of view, this is already supported.

* P1: Intention to have restriction, can check for next meeting whether any change is needed.

[R2-2403308](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403308.zip) On Mobility RILs [E068] and [S792] Nokia discussion Rel-18 NR\_Mob\_enh2-Core

* noted

[R2-2403177](file:///C%3A%5C%5CUsers%5C%5Cmtk65284%5C%5CDocuments%5C%5C3GPP%5C%5Ctsg_ran%5C%5CWG2_RL2%5C%5CRAN2%5C%5CDocs%5C%5CR2-2403177.zip%22%20%5Co%20%22C%3AUsersmtk65284Documents3GPPtsg_ranWG2_RL2RAN2DocsR2-2403177.zip) [E068][E231][E074][E240][S792]Resolution of remaining RILs for LTM Ericsson discussion Rel-18 NR\_Mob\_enh2-Core Late

E74: “Transaction ID”

- Apple agrees with Ericsson proposal, and think this is helpful for R19 as well.

- CATT think it is not a valid case that multiple configurations are applicable for one target cell.

- MTK think now we have some cases where this may apply and think this is helpful for R19

- HW think the only scenario is LTM and CHO config for the same cell, think only 1 bit is needed.

- vivo prefer to not do any optimization, can configure different C-RNTI for different config.

- LGE think that with extended transaction ID space this is resolved.

- Xiaomi think that complete message already contains the conditional configuration ID.

- Ericsson think there can be multiple LTM configs per target cell, and think that CRNTI check does not work.

- Intel support this proposal, it seems to be a clean solution. Lenovo as well.

- Nokia wonders if this is really a real problem ..

* Upon an LTM cell switch, the UE includes the applied LTM candidate configuration identifier within the *RRCReconfigurationComplete* message.

E240 Erroneous RA-RNTI forward target to src DU

- CATT think some parameter need to be provided to discriminate between resources used. Samsung agrees.

- Ericsson and ZTE think RA-RNTI should not be used, just the preamble ID.

- Ericsson proposes that they bring this issue to RAN3 directly. Vivo think we need to discuss this in RAN2.

* postponed

[R2-2402499](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402499.zip) [E074][E068] On Postponed RRC Issues CATT discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2402234](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402234.zip) [E068] On SecurityConfig for LTM MediaTek Inc. discussion NR\_Mob\_enh2-Core

* Both noted

E068 DISCUSSION

- HW think the current TS works fine and nothing need to be fixed. The network can make this work by proper configuration with current fields. OPPO agrees with Huawei. LGE also agrees, for LTM master key is not updated.

- Ericsson agrees that the current signalling works as long as targets configs and current are the same.

- Intel think there are cases today where we allow signalling of alg, even if the same. No need to change anything

* The network ensures security configuration is consistent, e.g. security algorithm for candidates and src are the same.

[R2-2402905](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402905.zip) Handling the transaction ID issue with LTM Apple discussion Rel-18 NR\_Mob\_enh2-Core

* Noted

[R2-2402498](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402498.zip) [C127][C128][C129] RRC Issues on LTM CATT discussion Rel-18 NR\_Mob\_enh2-Core

* Noted

[R2-2403519](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403519.zip) [F034][F035] Further issues on state variable continuation at fast LTM recovery Fujitsu discussion Rel-18 NR\_Mob\_enh2-Core

* noted

[R2-2402436](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402436.zip) Discussion on RRC issues for LTM OPPO discussion Rel-18 NR\_Mob\_enh2-Core

- CATT think this is not entirely correct, is placed at wrong location.

- Ericsson wonder if the master key change is part of the LTM config, OPPO confirms this is for L3 HO.

* Noted

[R2-2402235](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402235.zip) Fast Recovery with LTM Candidates MediaTek Inc. discussion NR\_Mob\_enh2-Core

- MTK think that if to support LTM recovery for T304 recovery then detailed procedure in UP TS need to be updated.

- OPPO think the case that is affected is very limited. Only applicable to case when security was updated.

- Nokia and QC support MTK proposal. Apple are also OK.

* Noted
* LTM recovery is not supported for T304 expiry after HO (L3 HO) and CHO, but supported for T304 expiry after LTM cell switch (and RLF as earlier agreed). This agreement supersedes earlier agreements.

[R2-2403284](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403284.zip) [H091][H092][H093][E068][H094][H095][H096] RRC remaining issues for LTM Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

H096 DISCUSSION

- Ericsson hopes the UE can understand the current text. Want to avoid extensive update. HW think extensive update is not needed. The approach is to just use the exact definitions proposed.

- HW think there are MCG related fields that are not obviously related to a CG like WLAN ID, BT identifier etc ..

P8

- Apple agree with the intent, but would like to check, via SRB3 – do the UE need to check .

* Postpone the following:

Proposal 8: Clarify that at SCG LTM execution, the UE releases all configurations received inside *mrdc-SecondaryCellGroup* or via SRB3, except for radio bearer configurations.

Proposal 9: At MCG LTM execution, the UE releases all configuration not received within inside *mrdc-SecondaryCellGroup* or via SRB3, except for radio bearer configurations.

[R2-2403712](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403712.zip) [B120][B121]coexistence of LTM and conditional reconfiguration Lenovo discussion Rel-18 NR\_Mob\_enh2-Core

Offline?

[R2-2402744](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402744.zip) Discussion on remaining issues for LTM ZTE Corporation discussion Rel-18 NR\_Mob\_enh2-Core

Offline?

[R2-2402265](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402265.zip) [F013-015] [F031-033] Corrections to TS 38.331 on LTM Fujitsu discussion Rel-18 NR\_Mob\_enh2-Core

Offline??

[R2-2403299](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403299.zip) On Reference Configuration [N133] and Early Processing of LTM candidates in Rel-18 Nokia discussion Rel-18 NR\_Mob\_enh2-Core

P4 offline?

[R2-2403454](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403454.zip) [G125] Discussion on LTM cell switch execution during fast MCG recovery procedure Google Inc. discussion Rel-18 38.331 NR\_Mob\_enh2-Core

Enh description offline (no funct enhancement)?

[R2-2403263](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403263.zip) Indication of the LTM configuration ID by the UE Apple CR Rel-18 38.331 18.1.0 4715 - F NR\_Mob\_enh2-Core

SCG LTM at MCG failure recovery

Open issue last meetings

[R2-2403493](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403493.zip) Discussion on SCG LTM while MCG failure recovery Xiaomi discussion Rel-18 NR\_Mob\_enh2-Core

T304 & TAT

[R2-2402921](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402921.zip) Discussion on TAT expiry during LTM execution Samsung discussion Rel-18 NR\_Mob\_enh2-Core

Coexistence

Left overs:

- LTM – NR-U

- LTM/RACHless HO – NES: cell DTXDRX, left over issues, if any.

- LTM – Relaxed measurements (if there is a need

[R2-2402846](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402846.zip) Remaining coexistence issue for LTM Xiaomi discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2402439](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402439.zip) Discussion on cross-feature issues for LTM OPPO discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2403513](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403513.zip) Rel-18 L1/L2 triggered mobility remaining issues Sharp discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2403178](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403178.zip) Co-existance of LTM with NES, NR-U, and other features Ericsson discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2403374](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403374.zip) On Support 2TA For LTM Candidate ZTE Corporation, Sanechips discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2402236](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402236.zip) LTM and MIMO 2TA MediaTek Inc. discussion NR\_Mob\_enh2-Core

[R2-2403279](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403279.zip) Remaining Co-existence Aspects of LTM with L3 Mobility and DC Nokia discussion Rel-18 NR\_Mob\_enh2-Core

LTM Fast Recovery

[R2-2402609](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402609.zip) Discussion on the LTM fast recovery after RLF triggered by maximum number of RLC retransmissions vivo discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2403032](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403032.zip) Clarification on handling of conditional reconfiguration upon LTM-based recovery LG Electronics discussion Rel-18 NR\_Mob\_enh2-Core

Other

[R2-2402996](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402996.zip) RRC signaling related TCI state configurations Panasonic discussion Rel-18

Offline?

[R2-2402610](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402610.zip) Discussion on the impact of s-Measure on L1 measurement discussion vivo discussion Rel-18 NR\_Mob\_enh2-Core

Offline? Not strictly needed but can consider if no objection

[R2-2403187](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403187.zip) Control plane centric issues for LTM Langbo discussion Rel-18 38.331 NR\_Mob\_enh2-Core

Offline?

[R2-2402723](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402723.zip) Fallback for RACH-less LTM Lenovo discussion Rel-18

#### 7.4.3.2 Conditional Mobility

Includes both Subsequent CPAC and CHO including target MCG and candidate SCGs for CPC CPA in NR-DC.

RILs

PropDisc:

 C126 CHO with SCG (CATT),

H097 SecurityCellSetID (Huawei),

H084 Change of termination point (Huawei)

 C146 Cand Cell evaluation [N91] (CATT, Nokia?)

N93 SCPAC based on MCG measurement ID (Nokia), (tdoc?)

N93, no tdoc

- Nokia think this is no longer needed

* N93, cancelled

PropReject but covered in tdocs:

 C130 Presence condition of scpac-ConfigComplete (CATT),

 H085 Unclarities and duplications in SCPAC execution procedure (HW),

 C144 Validity of stored condExecutionCondSC {CATT}

C145 Limition on allowing NW to update SCPAC configuration after SCG release/PCell change/PSCell change

C147 MCG MAC reset (CATT),

[R2-2402500](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402500.zip) [C126] RRC Issue on CHO with SCGs CATT discussion Rel-18 NR\_Mob\_enh2-Core

* To address RIL [C126], up to 2 events can be included as the execution condition of candidate PSCells in the Handover Command inter-node RRC message.
* TP in annex 1 is adopted as baseline.

[R2-2403285](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403285.zip) [H083][H084][H085][H087][H097][H114] Remaining issues for subsequent CPAC Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

DISCUSSION

H97 P1P2

- P2: Oppo agrees w Alt 2 but think that we may need an exception for CPA. Nokia think also for CPA there should be a configuration.

- Ericsson think that if there are exceptions maybe not P2Alt2.

- Several companies think that this can be mandatory for the network configuration in any case, then UE procedure would be simpler ..

Discussion round 2

- Ericsson think we should not require this for intra-SN-case.

- OPPO think it doesn’t work if we don’t set this for intra-SN-case, when cand are configured for both intra-Sn and inter-Sn, or when CPA is configured.

H84H85 P4P5P6

P4

- Oppo support P4

- Nokia think the existing text works fine and the change doesn’t improve readability.

- Ericsson prefers the existing text.

- Session chair: ok we don’t do this

P5

- Oppo could be ok with not supporting termination point change.

- Ericsson think that as long as security can be updated, why not support.

- NEC think the current text support this.

- Huawei think the current text is broken.

* SecurityCellSetId is mandatory for all candidate cells ..
* Fix current issues with radio bearer config and keys to use, and continue assume that termination point change is supported (in post email disc)
* CB friday, can CB if needed to the security cell set id

[R2-2402501](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402501.zip) [C144][C145][C146][C130][C147] RRC Issues on SCPAC CATT discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2403145](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403145.zip) RIL-N091 and other remaining open issues for SCPAC Nokia discussion

C146:

- 2 baseline TPs, one from CATT one from Nokia.

- Vivo think current text may work but are ok with Nokia proposed fix as baseline. CATT think the Nokia TP is also difficult to understand.

- OPPO wonder if C144 need to be addressed as well

* Acknowledge the issue of C146, find TP resolution in post email discussion. Can include C144 to the extent needed.

C147

- OPPO think MAC reset is needed, as RLC reestablishment is done,

- Chair wonder if not MAC reset usually resets all state invoked by MAC CEs ..

- Nokia would prefer to not reset MAC, but the MCG configuration then need to be kept, rather than changed. Propose to address as described in 2.3 in the Nokia tdoc

- Ericsson think reconfiguration with synch anyway brings MAC reset. CATT think this way would be safe, if this is included.

- Apple think MAC reset is ok. Vivo agrees with Apple.

- HW think there is an issue with messages reception as we then reset HARQ.

- Intel think there are several scenarios ..

* No consensus for now that there is an issue to resolve, can CB next meeting if needed.

[R2-2403697](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403697.zip) [O203] Issue on RRCReconfigurationComplete message delivery for intra-SN SCPAC OPPO (chongqing) Intelligence discussion Rel-18 NR\_Mob\_enh2-Core

PropAgree H114 [O203]

[R2-2403252](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403252.zip) Open issues for subsequent CPAC Ericsson discussion Rel-18 NR\_Mob\_enh2-Core

DISCUSSION

P2

- OPPO htikn the TP could be done more simple.

P5P6P7

- Nokia think this is not needed. LGE agrees with Nokia. This can be left for UE impl. No need to mandate UE beh. OPPO agrees. Ericsson want to keep this for UE impl, but only clarify when it should be done.

- Nokia think configuration compliance check doesn’t need to be done again and again.

- HW think the proposed addition contradicts the current addition to the existing note, if something is wrong then just remove the newly added part.

P1, P3 agreed:

* P1: At execution of a subsequent CPAC configuration, only execution conditions of other subsequent CPAC configurations in the same format (MN or SN) as the executed configuration should be updated.
* P3: Add that the UE should use the default values for timers T310 and T311 and constants N310 and N311 for both cell groups (MCG and SCG) at execution of subsequent CPAC in MN format.

TP details offline in post email disc.

* P5P6P7, no consensus, can address if needed next meeting.

[R2-2402611](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402611.zip) Discussion on simultaneous evaluation for both condRRCReconfig and condExecutionCondSCG vivo discussion Rel-18 NR\_Mob\_enh2-Core

DISCUSSION

- OPPO support

- Nokia think the TP need to be checked offline

- Ericsson think this change is not needed, as this can be achieved

* There seems to be support to change, and the Option-2 TP seems to be correct, details discussed offline, post email disc.

[R2-2402745](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402745.zip) Discussion on inter-node RRC message for intra-SN SCPAC in MN format ZTE Corporation discussion Rel-18 NR\_Mob\_enh2-Core

*Proposal 1: For intra-SN subsequent CPAC in MN format, the CG-CandidateList message is reused to transfer the prepared PSCell ID(s) and the associated candidate SCG configuration(s) from the source SN to the MN.*

*Proposal 2: For intra-SN subsequent CPAC in MN format, the candidateCellInfoListCPC and candidateCellInfoListSubsequentCPC within the CG-Config message are reused to transmit the execution conditions for the initial execution of subsequent CPAC and the following execution of subsequent CPAC, respectively.*

*Proposal 3: RAN2 to adopt the TP for inter-node RRC message in the Annex.*

*Proposal 4: RAN2 understands both CG-Config message associated with the source SCG and CG-CandidateList message associated with candidate PSCell(s) can be included in one SN Modification Required message for intra-SN subsequent CPAC in MN format.*

*Proposal 5: RAN2 to send a LS to RAN3 about the inter-node RRC message for intra-SN subsequent CPAC in MN format. Ask RAN3 to confirm*

DISCUSSION

- Nokia think this is a RAN3 problem, and should be decided in RAN3.

- Ericsson think the RRC inter-node message is ok to use. QC agrees.

* P1-5 seems agreeable with addition to ask R3 to confirm,
* CB FRIDAY, to confirm agreements, verify TP and Approve LS out
* [AT125bis][504][R18 Mob] (ZTE)

 Intended outcome: Agreeable TP, Draft LS out

 Deadline: CB, friday

[R2-2402931](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402931.zip) Considerations on CHO with SCG(s) and Subsequent CPAC Samsung R&D Institute UK discussion

DISCUSSION

P1

- Ericsson think this is already captured.

- Nokia are ok with this.

- HW think this is ok.

- Lenovo agrees with intention, but think we have three CHO, R16, R17, R18 which are different, and P1 should be applicable only to R18.

P2

- Nokia has a different opinion, should continue evaluation.

- OPPO think this doesn’t work.

- HW think Stage 2 and stage-3 TPs are conflicting, but are already not consistent.

- QC wonder what should happen then, if we continue the evaluation, as SCG failure has been triggered

- Samsung think the measurement is intended, not the evaluation which are covered in different places ..

- HW think that after SCG failure, the network will immediately reconfigure the UE, no need to specify detailed UE behaviour. However there is a Stage-2/Stage-3 misalignment.

P3

- HW ok.

- OPPO think this is reasonable

- CATT think this is covered in C145

P4

- HW ok

- OPPO think this is reasonable

- CATT think this is covered in C145

P5

- Ericsson think the TP can be simplified.

- HW think the TP need work

* P1, P3, P4 seems agreeable. Can work on TP offline in post email discussion (consider also C145)
* P2: fix stage-2 / Stage-3 misalignment by stage-2 update (add to 37340 post email disc)

[R2-2402967](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402967.zip) Discussion on remaining issues of L2 reset for SCPAC NEC discussion Rel-18 NR\_Mob\_enh2-Core

NEC explains that P1 and P2 should be addressed

- Nokia think that reestablishment is only for anchor point change.

- HW think that for P2, the network can send the reestablish indication directly, no need to have this in the procedure.

- OPPO think for P2, indeed the network can indicate, agree with P1.

- ZTE think p1 is ok, but think this is covered in the current TS,

- Intel think we can just discuss if the explicit flag is sufficient also for P1 ..

* P1, determine what change is needed, if any, in post meeting disc.

#### 7.4.3.3 eEMR and IMR

RILs

PropDisc:

 N111 (Nokia), Z044, Z046 (ZTE), H144 [H146, H147], H145 (Huawei), X124 (Xiaomi),

PropReject but covered in tdocs:

 Z048 (ZTE).

General

[R2-2403596](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403596.zip) [N111][N112] Discussion and TP for EMR and non-EMR Nokia discussion Rel-18 NR\_Mob\_enh2-Core

DISCUSSION

- Session Chair think if needed we can address naming e.g. offline between meetings.

P12

- ZTE proposes to replace nonEMR to reselection.

P345

- VDF wonder if the reporting of validity status need to be controlled in the proposed way. Nokia think it could work, that the UE repot validity but the netowrk doesnt support. VDF think we should not add things to SIB1 unless absolutely needed.

- HW agrees with VDF that we don’t need a new SIB1 indication. We can resolve in other ways.

- QC thikn we agreed to the SIB1 indication at last meeting.

- Nokia are ok to not have the SIB1 indication.

- ZTE think if there is no SIB1 indication. Think we can then update e.g. the availability indication. Think we anyway need a mechanism to avoid reporting of unknown things to the network. Ericsson agrees.

- Ericsson think the network should indicate what it wants. Could e.g. do this in the reporting procedure.

P7

- MTK wonder if R18 EMR is then R16 EMR + validity timer. MTK wonder if the expection is behaviour = T331 infinity. Nokia confirm.

- QC wonder if timer would not be mentioned at all of timer = infinity would be explict. Nokia think not mentioned

- vivo thikn for legacy it is mandatory to configure this timer. Would like to follow legacy principle, that if timer is not configured then up to UE impl what/whetehr to measure. Apple has similar views as vivo.

- OPPO thikn for R16 the timer is mandatory, and think a better way is to extend the timer to be longer for R18 .. Nokia agrees and think infinity could be configured. Apple think we should assume that R16 behaviour.

P8

- QC think network should configure the freq to report. Is this the case? Nokia think this is the current wording. Nokia explains this is already in the text.

- vivo think this should be just for CADC scope.

- ZTE has similar proposal as LGE but think it doesnt affect the actual measurements, instead affect just availability indication and reporting.

* P1/P2 agreeable, use the language ”Reselection measurement”, ”Idle/inactive measuremements” overall, also for UE caps.
* P3: Validity status is common for all reported measurements of one type (e.g. idle/inactive and/or reselection measurements i.e. no need to consider validity status separate for each reported cell measurement. Validity status will not be explicitly reported.
* P4: (guideline for text) No need to have other references/defintions of validity of measurements than reference to 38.133 in the field description(s) of *validityStatus*
* We don’t have a R18 SIB1 indication for reporting of R18 validity (neither for EMR nor for reselection measurements). Detailed mechanism offline (incl TP if possible).
* P6: [N112] Measurement configuration for R18 existing measurements should be updated regardless of T331 timer status.
* P7 postponed
* For reselection measurements: Confirm that the freq is optionally configured by the network, applicable to UE availability indication and UE reporting (doesn’t impact the actual measurements). If not configured, the UE reports what is has.
* For reselection measurements: UE doesn’t do filtering wrt CADC UE caps (wrt UE availability indication or reporting).

[R2-2403644](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403644.zip) CA-DC capability checking for Reselection Measurement Reporting LG Electronics Inc. discussion NR\_Mob\_enh2-Core

- Proposes UE filtering of reported measurements wrt CA-DC capability to control indication of availability.

* noted
* [AT125bis][502][R18Mob] EMR and reselection Measurement reporting (Nokia)

 Scope: The mechanism marked “offline” in session Notes above. Identify the options to consider, converge as far as possible / reasonable.

 Intended outcome: Report, TP if possible

 Deadline: CB, see schedule

R2-2403969 [AT125bis][502][R18Mob] EMR and reselection Measurement reporting (Nokia) Nokia

DISCUSSION

- ZTE think there may be the case that UE indicate avaialbility but doesnt report anything ..

- LGE think with this solution we don’t need the explicit reporting of validity status. Huawei and ZTE agrees.

* Update of agreement above regarding language (to bbe consistent with this tdoc)
* add request of validated measurments in RRCResume/UEInformationRequest and UE only reports validated measurements if requested explicitly by NW.
* In the earlier messages where UE indicates availability of measurements also release 18 UE will indicated availability regardless of validity of measurements (this was already UE behaviour in the specification = no impact)
* Update the agreement above to cover that the UE does not explicitly report the validity status.
* CR review by post meeting email disc.

[R2-2402746](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402746.zip) Remaining issues on eEMR and IMR ZTE Corporation discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2403253](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403253.zip) Discussion on early measurements enhancements Ericsson discussion Rel-18 NR\_Mob\_enh2-Cor

[R2-2403286](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403286.zip) [H144][H145][H146][H147] Issues on eEMR and IMR Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2403720](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403720.zip) [X124] Discussion on validity status Xiaomi discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2402328](file:///C%3A%5C%5CUsers%5C%5Cmtk65284%5C%5CDocuments%5C%5C3GPP%5C%5Ctsg_ran%5C%5CWG2_RL2%5C%5CRAN2%5C%5CDocs%5C%5CR2-2402328.zip%22%20%5Co%20%22C%3AUsersmtk65284Documents3GPPtsg_ranWG2_RL2RAN2DocsR2-2402328.zip) Discussion on eEMR SCell setup delay vivo discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2402440](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402440.zip) Open issues for IMR and eEMR OPPO discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2403494](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403494.zip) Discussion on eEMR and IMR Xiaomi discussion Rel-18 NR\_Mob\_enh2-Core

- the aspects of the above tdocs addressed already above.

* 8 tdocs Noted

LTE applicability

DISCUSSION

- ZTE raises that RAN4 are waiting for RAN2 to decide on LTE applicability, and think we need to decide now.

- Nokia think we already had some discussion, and the result is that there is no applicability to LTE for the new case of reselection measurements.

- It is assumed that RAN4 can use decision from RAN2 Session Notes.

* Rel-18 reselection measurements reporting doesn’t apply to LTE. For Rel-18 EMR follow the baseline and support Rel-18 EMR behaviour also for LTE.
* [Post125bis][513][R18Mob] Idle/Inactive and Reselection Meas Reporting CR (Nokia)

 Scope: Cover meeting agreements

 Intended outcome: Agreed-in-principal CR 38331.

 Deadline: Short

### 7.4.4 MAC Corrections

MAC corrections and User Plane Centric Issues (including tdocs on user plane centric issue that also impact other TS)

[R2-2403287](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403287.zip) Miscellaneous corrections for further mobility enhancements Huawei, HiSilicon CR Rel-18 38.321 18.1.0 1817 - F NR\_Mob\_enh2-Core

- HW think first change is not controversial, for 2nd change there is a proposal

Post meeting email disc for approval, include impl of meeting agreements

* [Post125bis][514][R18Mob] MAC CR (Huawei)

 Scope: Treat R2-2403287. Cover meeting agreements. Based on non-treated tdocs/proposals, companies can also input non-controversial text enhancements (early, at start of email).

 Intended outcome: Agreed-in-principal CR 38321.

 Deadline: Short

[R2-2403288](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403288.zip) MAC remaining issues for LTM Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

DISCUSSION

P1

- Session chair wonder if we should offline review the agreements from earlier in the week, to identify applicability to LTM. HW think that we can do editorial alignment offline.

P2

- ZTE wonder how the network can indicate this? Session chair wonder if we need to ask R1. HW think we just implement R1 agreement. Session chair think then we just stick to it. If problems are found can revisit.

P3

- ZTE think we shall not impact the repetition procedure. Think we can use the repetition configured by RRC.

- MTK think the repetitions config is not very dynamic.

- Samsung explains that this was intended for access on L3 handover. It would be based on measurements, and is dynamic

- Nokia agrees with the proposal, but want to clarify that this is applicable to CFRA.

- LGE think CBRA is also repeated, think the CBRA repetition is dep on the resource selected. Think the rep number for CFRA and CBRA need to be the same, need to be ensured by the network.

- HW think that a consistency requirement is ok.

P4 / P5

- ZTE agrees that CFRA fallback should be CBRA, but P4 has some issues

- Samsung think that RACHresourceDedicated is still needed when CFRA resource is indicated in the MAC CR, as there are other configuration parameters that are needed.

- LGE think P5 is ok, P4 is more a network impl.

* RAN2 confirms that the DRX configuration and measurement gap configuration may be applied during on-going RACH-less LTM cell switch. But, as in the current MAC specification, during on-going RACH-less LTM, UE considers DRX Active Time and monitors PDCCH during measurement gap
* Keep the “UL TCI state ID” field in the LTM cell switch MAC CE.
* Confirm that If the CFRA resources indicated in the LTM cell switch MAC CE are not suitable, due to RSRP check, the UE performs CB RACH.
* Msg1 repetition number (for CFRA) is indicated by the LTM Cell Switch MAC CE. It is assumed that the network provides the possibility of same repetition number for CBRA for fallback, for consistency with Coverage Enhancement behaviour. If there are issues, can revisit.
* [AT125bis][503][R18Mob] MAC (Huawei)

 Scope: AI 7.4.4: Treat/discuss non-TP-centric parts for items marked “offline” (either whole paper or certain proposals of a paper). Can also attempt to get on the same page wrt applicability of RACH-config-dedicated, e.g. for CFRA indicated in the MAC CE.

 Intended outcome: Report

 Deadline: CB, see schedule

R2-2403966 Summary of offline discussion [503] Huawei, HiSilicon

DISCUSSION

P3

- MTK think this is related to RAN1 LS that they agreed today. Maybe better to postpone. HW agrees, we can postpone, and first aim to clarify in RRC.

P4

- ZTE think the proposal is ok, and think LS is not needed. In R1 and R4 it is clear that this is expected.

P6

- HW explains that the case discussed was that the UE receives a DG when CG is supposed to be used.

- LGE explains that the intention with “same HARQ process” was that the network should ACK the RRC reconfiguration complete (even though there are no explicit ACKs at HARQ level for UL)

- ZTE would like the possibility to use DG with other HARQ process after CG that failed / was not detected by the gNB.

* P1 in R2-2403280 ("NW can trigger LTM cell switch over RACH regardless of if the UE-based TA estimation is configured.") can be further discussed.
* Revise the MAC CR to change the UL TCI state field to a 6-bit field and two reserved bits.
* Postponed: (expecting input from R1 and update to RRC): whether to specify in MAC that the unifiedTCI-StateType in the MAC CE refers to the field in LTM-TCI info (rather than in the target configuration).
* RAN2 assumes that the UE shall send HARQ ACK for the TB carrying the LTM cell switch MAC CE. No need to update RAN2 TS with clarification.
* When using CFRA resources indicated in the LTM cell switch MAC CE, the UE applies ra-Prioritization if configured in rach-ConfigDedicated for the indicated UL carrier.
* Postpone: Discuss in the next meeting whether to specify the UE behaviour when the UE receives a grant for a retransmission or new transmission on a HARQ process not used for the first PUSCH transmission during RACH-less LTM cell switch.
* Consider in MAC CR post-meeting email discussion any correction needed to ensure that PREAMBLE\_POWER\_RAMPING\_COUNTER is reset to 1 in case of early RACH to a cell different from the cell to which RACH was last performed.

In CR post email discussion, companies can also input (early, at start of email) whether capture of some agreement or new added text need improvement.

[R2-2403280](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403280.zip) On the LTM Cell Switch Aspects Nokia discussion Rel-18 NR\_Mob\_enh2-Core

P1 offline

P2 P3 P4 P6 offline

[R2-2403373](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403373.zip) Considerations On Remaining MAC Issues For LTM ZTE Corporation, Sanechips discussion Rel-18 NR\_Mob\_enh2-Core

P4 offline

[R2-2402366](file:///C%3A%5C%5CUsers%5C%5Cmtk65284%5C%5CDocuments%5C%5C3GPP%5C%5Ctsg_ran%5C%5CWG2_RL2%5C%5CRAN2%5C%5CDocs%5C%5CR2-2402366.zip%22%20%5Co%20%22C%3AUsersmtk65284Documents3GPPtsg_ranWG2_RL2RAN2DocsR2-2402366.zip) MAC corrections for LTM Samsung Electronics Co., Ltd discussion Rel-18 NR\_Mob\_enh2-Core

P4 offline

[R2-2402266](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402266.zip) Corrections to TS 38.321 on LTM Fujitsu discussion Rel-18 NR\_Mob\_enh2-Core

P1 P4 offline

[R2-2403464](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403464.zip) Corrections for remaining issues on MAC LG Electronics Inc. discussion Rel-18 NR\_Mob\_enh2-Core

P1 offline

[R2-2402581](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402581.zip) Discussion on UL collision with early UL synchronization in LTM ASUSTeK discussion Rel-18 38.321 NR\_Mob\_enh2-Core

Offline

[R2-2402612](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402612.zip) Discussion on MAC open issues for LTM vivo discussion Rel-18 NR\_Mob\_enh2-Core

P1 offline

[R2-2403186](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403186.zip) User plane centric issues for LTM Langbo discussion Rel-18 38.321 NR\_Mob\_enh2-Core

Offline

[R2-2402438](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402438.zip) Discussion on TCI state related issues OPPO discussion Rel-18 NR\_Mob\_enh2-Core

Related to LS in

[R2-2402502](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402502.zip) MAC Issues for LTM CATT discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2402579](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402579.zip) Discussion on fallback RACH for LTM ASUSTeK discussion Rel-18 38.321 NR\_Mob\_enh2-Core

[R2-2402437](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402437.zip) Discussion on remaining MAC issues for LTM OPPO discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2402580](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402580.zip) Discussion on LTM candidate configuration for different CGs ASUSTeK discussion Rel-18 38.321 NR\_Mob\_enh2-Core

[R2-2402613](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402613.zip) Discussion on the remaining issues for LTM with MIMO two TA vivo discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2402845](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402845.zip) Discussion on the SFN acquisition for LTM Xiaomi discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2402966](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402966.zip) Discussion on DRX and measurement gap enhancement for RACH-less mobility NEC, Huawei, HiSilicon, Xiaomi discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2402984](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402984.zip) Support of Activating the Flexible Number of TCI States using Candidate Cell TCI States Activation/Deactivation MAC CE Samsung discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2403101](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403101.zip) Discussion on RV and carrier selection for RACH-less LTM NEC discussion Rel-18 NR\_Mob\_enh2-Cor

Further Enhancement

[R2-2403179](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403179.zip) Adding SR resources within the LTM cell switch MAC CE Ericsson discussion Rel-18 NR\_Mob\_enh2-Core

### 7.4.5 UE capabilities

[R2-2402409](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402409.zip) Remaining UE capability issues for feMob Intel Corporation discussion Rel-18 NR\_Mob\_enh2-Core

DISCUSSION

P1/P2

- Intel think in addition we need to discuss why R1 has defined intra freq per BC.

- Intel think the HW TP for this is better.

- Ericsson has the opposite view, separate the measurement cap with no dependency, as in the R1 feature list. Nokia support Ericsson view. Session chair wonder if R3 impacts are assumed. Noone think this is the intention.

- Apple wonder if there is a new cap for LTM.

- MTK are ok either way.

- HW think the R1 L1 measurement is per BC, could be the case that there need to be relation.

- QC think LTM should not be done based on only L3 meas, should require L1 measurement cap.

- Apple also point out that the LTM cell switch MAC CE has mandatory TCI info.

- ZTE think the UE caps for L1 is per BC, think R4 also include the target band dependency (for inter freq measurement). Measurement is in R1 feature list. This is more important to figure out.

- vivo think the ZTE aspect is discussed in RAN4. For L1 meas dependency think it is better to decide in R2. ZTE think the target band discussion in R4 is for early RACH not for measurement.

- Samsung think: L1 measurement would typically be required, think the R2 UE cap is per UE which is very course granularity (now), need to change if no relation. On the measurement cap, related to baseband cap, this is why it is per BC.

- Ericsson are not ok, as e.g. inter-freq L1 measurements are complex. Would like the option to trigger by L3 measurements. MTK agrees that inter-freq is complex.

- VDF think without L1 measurements the performance will be bad, and think is not intended. MTK think indeed the main gain is in UL and DL synch.

- QC need to check first if the direction.

- Apple think we agreed based on long discussion that TCI is mandatory in LTM MAC CE.

- vivo think R4 has made it easy to support inter-freq L1 measurements, e.g. based on known cells based on L3 meas. Nokia confirms these assumptions.

- Nokia agree that main benefits are UL and DL synch.

- Verizon think having the possibility to do LTM switch based on L3 measurement would be good and come with clear benefits.

- Xiaomi think decoupling of these UE caps are ok. L3 also include beam level results, so TCI info can be inferred.

- OPPO think existing stage-2 text mentions L1, and definitions elsewhere as well.

Session Chair:

- If it seems clear that UEs will have problems with inter-freq measurements then decoupling and assuming triggering by L3 measurements will have benefits wrt market deployment.

- On the other hand, it seems simpler to couple the UE caps, from TS perspective, as parts of current TS contents seems based on such assumption.

* P3: No capabilities are introduced for 2 trigger events for CHO or C-SCG
* P4 Option 1: A single capability bit for indicating UE’s capability for CHO component as was agreed for *condHandoverWithSCG-NRDC-r17* with different FDD-FR1 bands, TDD-FR1 bands, TDD-FR2-1 bands and TDD-FR2-2 bands, between FR1-FR2 and between FDD-TDD capabilities for the C-SCG component will reduce the number of bits needed but does not offer the full flexibility for CHO component.

CB Thursday on P1 P2 (homework for UE vendors, and others).

- QC can accept to support L3 meas for triggering of interfreq LTM, if other companies want that. QC assumes this would also be related to inter-freq early synch, which should then be taken into account. Think R1 will discuss this today.

- MTK think the initial R1 intention was to have decoupled UE caps, i.e. LTM and L1 measurements, which is ok. Xiaomi agrees that this is the R1 intention. Think this is not necessarily related to early synch, but that is R1 topic.

- HW think L1 measurements are an essential part for LTM and should be required. HW think this is clear in the feature list. Samsung agrees.

- Xiaomi think that R1 cap is per band and R2 cap is per UE.

- vivo indicate that R4 intention has been to decouple the UE caps.

- Ericsson think R1 intention was to decouple.

- HW think using L3 measurement with LTM doesn’t work without R3 impact.

* Send LS to R1 and R4 to ask to clarify whether LTM capability need to be coupled with L1 measurement capability. If not, the RAN2 assumes they are decoupled. Also ask R1 about reasons for having the L1 measurements per B/BC.
* RAN2 makes no further assumptions whether L3 measurements can be used or not to trigger LTM.
* Short post email discussion, LS out to RAN1 on UE cap / Features (intel)
* [Post125bis][515][R18Mob] LS out on UE caps / Features (Intel)

 Scope: LS to R1 and R4 according to meeting agreements / discussion

 Intended outcome: Approved LS out. .

 Deadline: Short

[R2-2403665](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403665.zip) Capabilities for PDCCH-ordered RACH           Ericsson   discussion

Moved from 7.0

- Ericsson report that this is discussed in RAN4 still, not concluded yet, encourages companies to be active in R4.

* Noted

[R2-2403289](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403289.zip) Discussion on LTM UE capability Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

CB on P1 and P4 after CB above

- Intel think the proposals are quire straight-forward, can be part of CR discussion, except P3

* P1, P4 postponed awaiting R1 LS reply
* Introduce a separate UE capability to indicate whether the UE supports the release of NR-DC configuration as part of MCG LTM execution. This allows deploying MCG LTM even if no network implementation supports MCG LTM with SCG release (which may have issues for the network).
* Other proposals by CR post email disc (long disc, intel).

[R2-2403180](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403180.zip) [E250] Correction on capabilities for LTM Ericsson discussion Rel-18 NR\_Mob\_enh2-Core Late

[R2-2402237](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402237.zip) UE Capabilities for CHO with Candidate SCG MediaTek Inc. discussion NR\_Mob\_enh2-Core

[R2-2403495](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403495.zip) Discussion on UE capabilities for Rel-18 Mobility Xiaomi discussion Rel-18 NR\_Mob\_enh2-Core

* [Post125bis][516][R18Mob] UE cap CRs (Intel)

 Scope: Cover meeting agreements.

 Intended outcome: Agreed-in-principal CRs 38306, 38331.

 Deadline: Long

## 7.12 Mobile IAB (Integrated Access and Backhaul) for NR

( NR\_mobile\_IAB -Core; leading WG: RAN3; REL-18; WID: [RP-232669](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_101/Docs/RP-232669.zip))

Time budget: N/A

Tdoc Limitation: 2 tdocs (if you want to input beyond the tdoc limitation, please cooperate with CR Rapporteurs).

NOTE that RACH-less for mIAB (and some other WIs) is handled in the common session under AI 7.0.4.

### 7.12.1 Organizational and Stage-2

LS in. Includes TS impacts 38300 and Stage-2 Centric issues (can also cover secondary impacts to other TSes)

Stage-2’ish

[R2-2403576](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_125bis%5CDocs%5CR2-2403576.zip) Clarification on supporting two logical DUs and connecting via stationary IAB node ZTE, Sanechips CR Rel-18 38.300 18.1.0 0853 - F NR\_mobile\_IAB-Core

- non-captured discussion

- Session Chair: at least the second part of the second change seems to add significant info cmp to 38401, there are some comments that the first change is not needed. Can discuss offline

* [AT125bis][501][mIAB] (ZTE)

 Scope: Based on R2-2403576, determine agreeable part, agreeable text

 Intended outcome: revised agreeable 38300 CR, report if needed.

 Deadline: CB Thursday, see schedule.

[R2-2403959](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403959.zip) Clarification on supporting two logical DUs and connecting via stationary IAB node ZTE, Qualcomm, Ericsson, Samsung, Nokia CR Rel-18 38.300 18.1.0 0853 1 F NR\_mobile\_IAB-Core

* Agreed in-principle

R2-2402644 Requirement on the SIB1 indicator presence for the mobile IAB-node Huawei, HiSilicon discussion Rel-18 NR\_mobile\_IAB-Core

- Nokia think the shall be optional.

- LGE support

- QC think this is not needed from network point, but would be ok to have.

- ZTE think not needed.

* No consensus to change anything

### 7.12.2 Stage-3

For multi-TS input, it is allowed to input also here.

#### 7.12.2.1 BAP

TS impacts 38340 and BAP Centric issues (can also cover secondary impacts to other TSes if applicable)

#### 7.12.2.2 Control plane corrections

TS impacts 38331, ASN.1 RIL, UE capabilities and 38.304

38304

[R2-2402936](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_125bis%5CDocs%5CR2-2402936.zip) Mismatch of terminology between 38.304 and 38.331 Samsung CR Rel-18 38.304 18.1.0 0398 - F NR\_mobile\_IAB-Core

- Ericsson think that suffixes should not be used outside RRC TS.

* Agreed in principle (check for next meeting whether the IE suffix need to be included)

RRC

[R2-2403168](file:///C%3A%5C%5CUsers%5C%5Cmtk65284%5C%5CDocuments%5C%5C3GPP%5C%5Ctsg_ran%5C%5CWG2_RL2%5C%5CTSGR2_125bis%5C%5CDocs%5C%5CR2-2403168.zip%22%20%5Co%20%22C%3AUsersmtk65284Documents3GPPtsg_ranWG2_RL2TSGR2_125bisDocsR2-2403168.zip) Miscellaneous corrections on Mobile IAB Ericsson CR Rel-18 38.331 18.1.0 4701 - F NR\_mobile\_IAB-Core Late

- No comments

* Post email approval, including agreed changes
* [Post125bis][517][mIAB] RRC CR (Ericsson)

 Scope: Cover meeting agreements.

 Intended outcome: Agreed-in-principal CR 38331.

 Deadline: Short

[R2-2403169](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_125bis%5CDocs%5CR2-2403169.zip) RILs conclusions for MobileIAB Ericsson discussion Rel-18 NR\_mobile\_IAB-Core Late

PropAgree: H113

* Noted

[R2-2403170](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_125bis%5CDocs%5CR2-2403170.zip) Discussion on RILs conclusion MobileIAB Ericsson discussion Rel-18 NR\_mobile\_IAB-Core Late

Not treated, same contents as above

[R2-2402645](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2402645.zip) [H112, H113] Discussion on targetNTA and tci-StateID for mobile IAB Huawei, HiSilicon discussion Rel-18 NR\_mobile\_IAB-Core

P1

- Ericsson think it is good to keep optional so it is easy to extend, but also agrees that it is always provided, can be expressed in some other way, e.g. in the FD.

* The *targetNTA* indication in *RACH-LessHO* IE should be always provided, can discuss further how to capture this (in the CR discussion)

[R2-2403340](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403340.zip) [S266][S267] Correction on setting mobile IAB support for PLMNs and NPNs Samsung discussion Rel-18 NR\_mobile\_IAB-Core

* The following change is agreed: remove “in a cell” in two places.

[R2-2403447](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403447.zip) Clarification to mobile IAB-MT measurement configuration Nokia discussion Rel-18 NR\_mobile\_IAB-Core

- QC think this is just network impl description, and this is not really needed. Ericsson agrees with QC.

- ZTE think we could have a MT behaviour that measurements can be excluded by SIB4 contents.

* RAN2 confirms that this seems possible, by current lists in the measurement configuration, no consensus to cover anything additional in TS.

[R2-2403448](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403448.zip) Discussion on gNB-ID signalling Nokia discussion Rel-18 NR\_mobile\_IAB-Core

- Ericsson think this is already possible to provide the required info, no need to have additional methods. Samsung agrees.

- ZTE think read of SIB1 will not slow this down, the MT need to acquire this after migration completion.

* No support

[R2-2403575](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2403575.zip) Correction on frequency prioritization for mobile IAB ZTE, Sanechips discussion Rel-18 NR\_mobile\_IAB

- LGE think the current text is correct as is, as the UE should reselect to the other frequency if he can camp on the mobile IAB cell, but not otherwise.

* No support

#### 7.12.2.3 User plane corrections

TS impacts 38321