3GPP TSG-RAN WG2 Meeting #126 R2-240xxx

Fukuoka, Japan May 20th – 26th, 2024

Source: Session Chair Johan (Mediatek)

Title: Report from session on Mobility Enh and Mobile IAB (Rel-18)

Offline Discussions

* [AT126][501][R18MobE] Power Control Parameters after LTM cell switch (Fujitsu)

 Scope: Sort out the usage of outer config vs candidate config, establish R2 view.

 Intended outcome: Report

 Deadline: CB, see schedule

* [AT126][502][R18MobE] UE cap Early TA acquisition (Qualcomm)

 Scope: Continue offline, i.e. based on R2-2405245 and R2-2404705 and the related discussion, determine if change is needed / desired and converge as far as reasonable, determine way forward, or alternatives / discussion points, If applicable, check impact on this discussion of R4 involvement, if any.

 Intended outcome: Report

 Deadline: CB, see schedule

* [AT126][503][R18MobE] Early Measurements (Nokia)

 Scope: Need to have a functioning procedure, can disc the procedure options and impacts, with the on-line discussion on validity status etc as starting point.
Include in this discussion: bugfixes from the submitted tdocs.

 Intended outcome: Report, TP if applicable

 Deadline: CB, see schedule

* [AT126][504][R18MobE] Conditional Mobility (OPPO)

 Scope: Cover and Converge on MCG reset to the extent reasonable, at least pave the way for decision at online CB. Can include some remaining part of other untreated tdocs if needed. Progress indicated parts and TP aspects.

 Intended outcome: Report w TP

 Deadline: CB, see schedule

## 7.4 Further NR mobility enhancements

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

Time budget: 0 TU)

Tdoc Limitation: 4 tdocs (if you want to input beyond the tdoc limitation, please cooperate with CR Rapporteurs).

### 7.4.1 Organizational

Including LSs.

Including outcome of [Post125bis][519][R18 Mob] Power Control Parameters after LTM cell switch (Fujitsu), with Scope: Collect RAN2 input in order to determine impacts and make decision as requested in R1 LS R1-2403683.

R2-2404126 Reply LS on n-TimingAdvanceOffset for PDCCH order RACH (R4-2406444; contact: Apple) RAN4 LS in Rel-18 NR\_Mob\_enh2-Core To:RAN2 Cc:RAN1

- already take into acct (in UE cap)

- Ericsson think we need a piece of text to handle the absence in RRC.

* Noted, consider also RRC impact acc to comment.

[R2-2404115](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404115.zip) LS on the identification of the power control parameters after LTM cell switch (R1-2403683; contact: Fujitsu) RAN1 LS in Rel-18 NR\_Mob\_enh2-Core To:RAN

* Noted

[R2-2404619](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404619.zip) Summary of [Post125bis][519][R18 Mob] Power Control Parameters after LTM cell switch (Fujitsu) Fujitsu discussion Rel-18 NR\_Mob\_enh2-Core Late

- MTK think this is related to TCI state config so discuss together with that.

- HW think the UE doesn’t need to read this before the cell switch, so why is this needed. CATT agrees. OPPO agrees as well think there is no additional delay.

- Ericsson and ZTE think we should go with Approach 2

- Ericsson think that the UE will not apply UE power control parameters related to TCI state in the candidate configuration.

* [AT126][501][R18MobE] Power Control Parameters after LTM cell switch (Fujitsu)

 Scope: Sort out the usage of outer config vs candidate config, establish R2 view.

 Intended outcome: Report

 Deadline: CB, see schedule

[R2-2405948](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405948.zip) Report [AT126][501][R18MobE] Power Control Parameters after LTM cell switch Fujitsu

DISCUSSION

- Huawei would like to confirm the R1 agreement also and capture it: that TCI configurations under LTM TCI Info is a subset of configurations in candidate configuration.

- Ericsson think this is not the case.

* RAN2 assumes that TCI configuration under LTM TCI info could be different to TCI configurations in candidate configuration.
* RAN2 to adopt Approach 2, i.e., introduce new RRC parameters under *LTM-TCI-Info*.

[R2-2404620](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404620.zip) [Draft] Reply LS on the identification of the power control parameters after LTM cell switch Fujitsu LS out Rel-18 NR\_Mob\_enh2-Core To:RAN1 Late

- Fujitsu report that RAN1 doesn’t need a reply LS

* noted

### 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.

Agreed in-principle

R2-2404607 Stage-2 corrections on LTM Mediatek Inc. CR Rel-18 38.300 18.1.0 0842 2 F NR\_Mob\_enh2-Core R2-2404009

* agreed

[R2-2405058](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405058.zip) Miscellaneous corrections for mobility enhancements ZTE Corporation CR Rel-18 37.340 18.1.0 0392 - F NR\_Mob\_enh2-Core

Same as CR 0391 which was agreed in-principle?

* Endorsed, further update expected to capture impact from current meeting, short email discussion.

PDCP impact

[R2-2404781](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404781.zip) Discussion on PDCP SN gap at LTM fast recovery NTT DOCOMO, INC. discussion Rel-18

Moved from 7.4.3.1

- Intel think the network knows this and can then handle this gap without impacts. Ericsson agrees. MTK too. OPPO too.

- Docomo think we should have some note, e.g. in 331 T304 expiry.

- HW and Nokia think that network usually handles cases ..

- Nokia think that if we have a note it could be in stage-2.

* R2 assumes that network implementation can handle this.
* Will have a note, where and what discussed in CR discussions after meeting.

### 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. For RRC issues, please input to ASN.1 review rather than just providing a tdoc. Including outcome of [Post125bis][510][R18Mob] RRC CR (Ericsson),

R2-2404967 Miscellaneous corrections on further mobility enhancements in NR Ericsson CR Rel-18 38.331 18.1.0 4705 1 F NR\_Mob\_enh2-Core R2-240317

- Outcome of long email discussion + solution for L063

- Huawei observe also some changes in 5.3.5.3, which we discussed before and this should not be done. Ericsson confirms that this is L063.

- LGE explains that the intention is to prevent CHO recovery after failed LTM recovery. Lenovo think that the opposite case is also an issue.

- ZTE think nothing is needed

* Endorsed, except for the newly added part in 5.3.5.3 to cover L063

[R2-2404970](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404970.zip) RILs conclusions for feMob Ericsson discussion Rel-18 NR\_Mob\_enh2-Core

New propAgree L063

* noted

#### 7.4.3.1 L1L2 Triggered Mobility

TCI state related configurations

[R2-2405216](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405216.zip) [H094][H095] Issues on LTM-TCI-Info Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

P1

- LG wonder if this is used for TRS resource tracking.

- Can consider offline whether additional explanation is needed.

P5

- Ericsson think that the IEs are in different places, think we don’t need to optimize. HW think there are inconsistencies that doesn’t make sense.

- Can consider offline whether it is worthwhile to go this way.

* Capture that *pathlossReferenceRS-Id* and *csi-RS-Index* in candidate TCI states refer to items configured in *LTM-TCI-Info*.

[R2-2404298](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404298.zip) Candidate TCI states issues in LTM and LS from RAN1 MediaTek inc. discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404771](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404771.zip) Linkage between candidate TCI states and TCI states inside candidate cell configuration Panasonic discussion

Moved from 7.4.4

[R2-2404300](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404300.zip) LTM with 2TA co-existance MediaTek inc. discussion Rel-18 NR\_Mob\_enh2-Core

- HW think all info so already there in the outer config.

- ZTE think indeed if all TCI states and all SSBs are included then this is possible.

- Apple think we can skip this CATT agrees

* UE-based TA measurement should not be configured if candidate cell is configured with Rel-18 MIMO 2TA

Other corrections

[R2-2405595](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405595.zip) Control plane centric issues for LTM Langbo discussion Rel-18 38.331 NR\_Mob\_enh2-Core

- Lenovo think T316 doesn’t need update.

- Nokia, Ericsson think LTM is already covered by recofinguration cases ..

* Consider offline whether clarifications are needed for timers table, T310, T312, for LTM Cell switch

[R2-2404804](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404804.zip) [B123] Coexistence of LTM recovery and CHO recovery Lenovo discussion Rel-18

DISCUSSION B123 L063

- Nokia think P2O1 can be considered only if very simple.

- Samsung agrees with LG, think TP by Lenovo is small.

- Apple also think we should consider what is logically correct to do, it is not so complex.

* CHO recovery is not allowed after LTM recovery failure (TP considered offline)

[R2-2405527](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405527.zip) Discussion on measurement gaps for LTM in NR-DC Samsung discussion

Moved from 7.4.2

DISCUSSION

- ZTE think the L3 measurent gaps are sufficient.

- Ericsson think same samples are used for L1 measurements as for L3 measurements

- Samsung think that no of cells can be different between L1 and L3 meas.

- Xiaomi think 3 in the table may need disc, vivo think this is then a R4 discussion.

- Apple think there could be an issue, and MN cannot fully understand SN situation.

- Samsung expect that if we address this, it will impact Inter-node-signalling

- Session Chair: can have time to check, until next meeting.

* Postponed

[R2-2405467](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405467.zip) RLC entity handling for IAB/mIAB during LTM execution Samsung discussion Rel-18 NR\_Mob\_enh2-Core

* Add handling of BH RLC channels in IAB/mIAB during LTM cell switch execution.

[R2-2404437](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404437.zip) Remaining issues on s-Measure and recovery after RLF due to RLC retransmission vivo discussion Rel-18 NR\_Mob\_enh2-Core

DISCUSSION

P1

- HW not current behaviour. LG agree with HW, already agreed that L1 meas doesn’t apply S-meas. Ericsson think this might not be captured in the TS.

P3

- HW agrees and wonder if this should not always be done.

- OPPO agrees with this proposal

- LG think this applies only at LTM recovery.

- Ericsson think also at LTM cell switch. Huawei think that before cell switch you may be at max retx-1 so also at cell switch. QC agrees.

- Samsung wonder if this only affects RRC or also RLC.

* Capture that s-Measure criterion is not applicable to L1 measurements, if not already clear (disc in CR update discussion)
* UE initialize RETX\_COUNT when performing LTM fast recovery and LTM cell switch (for all RLC SDUs), when not triggered by other condition, discuss how to capture in CR discussion.

[R2-2404968](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404968.zip) [E400] Issues on INM signalling and power control parameters for LTM Ericsson discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405059](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405059.zip) Discussion on remaining issues for LTM ZTE Corporation discussion Rel-18 NR\_Mob\_enh2-Core

* Both noted

DISCUSSION on the two tdocs above

- HW and Ericsson think the ZTE and Ericsson solutions are the same.

- OPPO wonder if this also applies to cond mobility. Ericsson think this is only for LTM.

* In order to keep supporting subsequent LTM at the SN, a new indication is introduced in CG-Config message so SN can indicate to the MN if there are available LTM candidate cell configurations, if more LTM candidate cell configurations are needed, or if the LTM candidate cell configuration indicated by the MN are accepted/rejected (or equivalent signalling solution), TP details in the CR discussion.

[R2-2404828](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404828.zip) [G125] Discussion on LTM cell switch execution during fast MCG recovery procedure Google Inc. discussion Rel-18 38.331 NR\_Mob\_enh2-Core R2-2403454

DISCUSSION

- Ericsson think the timer t304 is there and the UE knows about it so the UE can just wait and if the MCG doesn’t become available the timer would trigger further recovery. Xiaomi agrees. Vivo also agrees, and we can confirm this understanding, no need to update TS. Apple agrees.

- MTK think if there are split bearer or SRB3 it can be used. HW agrees, think this case is no real problem. OPPO agrees.

- ZTE think the handling is up to UE acc to current TS so we don’t need additional handling.

- Google think that the TS says the RRC reconfig complete shall be submitted by MCG.

- Samsung think that the MCG condition, that UE shall attempt to transmit while MCG is not suspended, is correct and may be worth capturing.

- Possible Preliminary conclusion: R2 understands that the UE has time to reattempt transmission of this message (until t304 expiry) and could wait until MCG is available, or until t304 expires which would then trigger recovery, according to current TS.

- Ericsson think we can clarify that the UE uses SRB1 (which can be split also), which is more **correct** than saying by MCG.

- Nokia think this is a corner case. Should be avoidable by network impl in most cases. Vivo agrees.

- QC also think this is a corner case. Think split SRB1 is not common.

- HW think the current TS is not clear, was assuming that we could clarify.

* the UE uses SRB1 for this case, details to be confirmed in CR discussion

[R2-2404438](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404438.zip) [E231][E240]RRC issues on LTM vivo discussion Rel-18 NR\_Mob\_enh2-Core

DISCUSSION

P1

- Ericsson think this is obvious, note is not needed.

P3

- Ericsson think that RA-RNTI is not useful, but is already in signalling, can leave as is

- Session chair: nothing needed

* it’s up to network implementation to ensure the correct security key is applied during and after UE access to the target cell if LTM and CHO are configured for the target cell with different security keys. No TS change needed

[R2-2405482](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405482.zip) [X131] Discussion on the SFN acquisition for LTM Xiaomi discussion Rel-18 NR\_Mob\_enh2-Core

DISCUSSION

- QC think we don’t need a note. Xiaomi think we have notes for other cases.

* R2 assumes that the UE is required to have valid SFN (read MIB at some point) of the candidate cell for early RACH if the timing information is required for the early RACH procedure of LTM, not much support to explicitly capture.

[R2-2404805](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404805.zip) [B120][B121]Coexistence of LTM and conditional reconfiguration Lenovo discussion Rel-18

DISCUSSION

- P2 P5 OPPO wonder how the network can avoid this. Think P3 P6 are already captured in stage-2 TS.

- P2 HW think it is not possible that the network can avoid. Think nothing R3 can/should do also for the other cases.

- Ericsson agrees with HW, Nokia as well.

* Noted, no support to further capture behaviours.

[R2-2405144](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405144.zip) On Early decoding, power control for UL transmission after LTM switch and coexistence with NES Nokia discussion Rel-18 NR\_Mob\_enh2-Core

DISCUSSION

P1

- LGE think this shall be up to UE impl, this is not needed

- HW wonder what is the difference. Nokia think the latency will be different. Xiaomi think R4 defines max delay, so some UEs will be a lot faster.

- Ericsson likes p1. NEC too.

- HW think that is a UE indicates 4 then network can use 4, this is one way to use this.

- Apple think that the network will anyway not be able to guess the delay very accurately based on a configuration, there are other delays.

- session chair: there seems to be some support, and some opposition

* P1 postponed

Withdrawn

[R2-2405159](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405159.zip) On the selection of RA preambles for LTM recovery [N161] Nokia discussion Rel-18 NR\_Mob\_enh2-Core Withdrawn

#### 7.4.3.2 Conditional Mobility

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

[R2-2404439](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404439.zip) [V138] Discussion on simultaneous evaluation for both condExecutionCond and condExecutionCondSCG vivo, CATT, OPPO, LG Electronics discussion Rel-18 NR\_Mob\_enh2-Core

- Ericsson think the term applicable measID is not defined. Vivo explain that other wordings can be possible.

- Huawei think indeed there is an unclarity.

- Nokia think the NR-DC check is not needed. vivo think this is C147.

* Intention agreeable but TP need updates

[R2-2405060](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405060.zip) [Z062][Z063][Z064] Remaining issues for subsequent CPAC ZTE Corporation discussion Rel-18 NR\_Mob\_enh2-Core

DISCUSSION

- Huawei think both TPs are ok.

- OPPO think no change is needed, think for P1 the legacy text is applicable. ZTE think there is a mismatch between stage-2 and stage-3.

- NEC also agree with intention, think TP for P1 is ok, for P2 need some modification.

- Ericsson agrees with intentions of P1 P2 think TP can be simplified. Think P4 is not needed

- vivo support.

* Direction of P1P2 is agreeable, offline disc TP and whether clarification discussed for P4 is needed/desired.

[R2-2404483](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404483.zip) Open issues for subsequent CPAC Ericsson discussion Rel-18 NR\_Mob\_enh2-Core

DISCUSSION

P123

- Ericsson clarifies that the compliance check need to cover that there is an skcounter when needed. Nokia think that the network shall ensure this doesn’t happen. QC agrees.

- HW think we could have a clarification that the network is supposed to handle this. Not by a note in compliance check.

- LG agree with the intention, think the assumption for UE behaviour is reasonable, but think this should be captured elsewhere.

- Ericsson think anyway that the note is misleading and should be updated.

P4

- OPPO agrees, but think it need to be complemented.

- Nokia think this is already covered

P6

- hw think this could be raised directly in SA3. HW think that the UE TS is crystal clear.

- QC agrees that UE beh is clear, not sure why we need to send LS to SA3.

- Ericsson think R2 stage-3 is inconsistent with SA3 stage-2.

- Session chair: no support right now to send LS, (and no willingness to change in R2), can allow to check.

P7

- Nokia wonder why we need exec conditions after measurement config has been released. HW also think the current CR text is ok, and removing this is strange.

- Ericsson think this is SCG config and will anyway be released, HW think this is MCG variable and will not be auto-released by SCG release if not explicit .

- Session Chair: can check offline

* Confirm that network shall ensure that UE has sk-counter value. Not much support for additional clarifications.
* Check offline whether clarifications related to P4 are needed [504]

[R2-2404605](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404605.zip) [E220] Issue on the presence of sk-counter in SCPAC CATT discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404606](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404606.zip) Remaining SCPAC issues CATT discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404415](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404415.zip) Discussion on remaining issues for SCPAC execution OPPO discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404412](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404412.zip) Discussion on L2 reset for SCPAC execution OPPO, NEC discussion Rel-18 NR\_Mob\_enh2-Core

MCG reset

[R2-2405190](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405190.zip) On MCG Reset handling for SCPAC in MN-Format Nokia discussion

[R2-2405217](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405217.zip) [C147] MAC behaviours in SCPAC Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405386](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405386.zip) [C147] MCG MAC reset upon SCPAC execution CATT discussion NR\_Mob\_enh2-Core

* 7 tdocs noted
* [AT126][504][R18MobE] Conditional Mobility (OPPO)

 Scope: Cover and Converge on MCG reset to the extent reasonable, at least pave the way for decision at online CB. Can include some remaining part of other untreated tdocs if needed. Progress indicated parts and TP aspects.

 Intended outcome: Report w TP

 Deadline: CB, see schedule

R2-2405944 Report [AT126][504][R18MobE] Conditional Mobility (OPPO) OPPO

P6:

- Ericsson think we don’t need to specify what the network configures.

- HW think that “initial configuration .. “ is not so clear.

- Xiaomi think that companies understand the intention, can maybe capture in chair notes.

* MCG MAC is not reset at SCPAC execution and the MN needs to use different LCID values for the MCG RLC bearer serving a radio bearer when the radio bearer is terminated in the MN and in the SN. Remove “reset MCG MAC” in section 5.3.5.13.8 for Subsequent CPAC execution.
* The sk-Counter is absent in the RRCReconfiguration message contained in condRRCReconfig which is for a SCPAC candidate. Add” This field is absent if the RRCReconfiguration message is contained in condRRCReconfig for subsequent CPAC” in the field description of sk-Counter and remove the restriction in the field description of sk-counterConfiguration.
* SCG RLC entity for radio bearers without termination point change or security key update is always re-established and the PDCP data recovery is performed for AM DRB if the associated RLC entity is released/re-established. Adopt the updated TP (Annex 4.3), as base.
* The servingSecurityCellSetId is not present when there is no SCG
* Adopt the updated TP(Annex 4.1) for RIL [V138], as base
* Adopt the updated TP(Annex4.2) for RIL [Z062][Z063], as bas
* RAN2 clarifies that the candidateCellInfoListSubsequentCPC is only included in the CG-Config message contained in the CG-CandidateList message, to imply the association between the candidate cell and the list of execution conditions for the following execution of subsequent CPAC. ZTE TP use as base,
* Regarding: the other conditional reconfiguration (with condReconfigId) is a legacy CPC/CPA configuration should be included in the procedure for evaluation of CPA/CPC/CPAC configurations in 5.3.5.13.4. Assume Base TP from Ericsson and further review as part of CR discussion.
* P1P2 in R2-2404606 and P1-P4 in R2-2404415 are discussed during post email discussion for RRC CR implementation.

The current RAN2 TS behaviour is confirmed:

* The legacy sk-Counter can be configured for Rel-15 inter-SN PSCell change/addition if subsequent CPAC configuration is configured or included in the same RRC message. No RAN2 spec change is needed.
* The legacy sk-Counter can be configured for Rel-17 CPAC if subsequent CPAC configuration is configured or included in the same RRC message. No RAN2 spec change is needed.

#### 7.4.3.3 Reporting of Idle Inactive and reselection measurements

Draft CRs UE cap

[R2-2405561](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405561.zip) UE capability for EMR and reselection measurements Nokia draftCR Rel-18 38.331 18.1.0 NR\_Mob\_enh2-Core

[R2-2405562](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405562.zip) UE capability for EMR and reselection measurements Nokia draftCR Rel-18 38.306 18.1.0 NR\_Mob\_enh2-Core

- No comments Tuesday

* Both endorsed (for merge)

Corrections

R2-2405563 EMR and reselection measurements details Nokia discussion Rel-18 NR\_Mob\_enh2-Core

* Noted

[R2-2404484](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404484.zip) Discussion on early measurements enhancements Ericsson discussion Rel-18 NR\_Mob\_enh2-Core

DISCUSSION

P1 etc

- vivo support, think this is helpful.

- ZTE think that the problem is that the target cannot obtain the configuration, 2 approaches. Think only one bit is not sufficient. Prefer to send the configured timer X to the network. QC wonder what the network will do if the timer is reported, support reporting of validity status. Nokia thinking along the same lines.

- HW think we should provide the information by the network. ZTE think it doesn’t work for Idle UEs.

- ZTE think that different configured X can be common, think that the RRC release method is the issue.

- Options: a) report validity status (with some remaining ambiguity), b) remove config of X in RRC release, c) report X as an indication of validity status. d) no change

- Nokia wonder if a) means that we also remove the request in MSG4. Huawei think we cannot do that unless we also add one more bit in SIB1. HW think the network has the UE caps and there is no ambiguity whether the UE reports validated measurements or not.

Tentative way forward:

 - ? UE reports value of configured X as an indication that measurement is valid, when the network request valid measurements.

Continue disc OFFLINE [503]

[R2-2404379](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404379.zip) Discussion on eEMR SCell setup delay vivo discussion

[R2-2405061](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405061.zip) Remaining issues on eEMR and IMR ZTE Corporation discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405218](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405218.zip) [H146][H147][H166][H167][H168] Issues on EMR and reporting of cell reselection results Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

* [503] three tdocs Noted
* [AT126][503][R18MobE] Early Measurements (Nokia)

 Scope: Need to have a functioning procedure, can disc the procedure options and impacts, with the on-line discussion on validity status etc as starting point.
Include in this discussion: bugfixes from the submitted tdocs.

 Intended outcome: Report, TP if applicable

 Deadline: CB, see schedule

[R2-2405995](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405995.zip) [AT126][503][R18MobE] Early Measurements (Nokia) Nokia

DISCUSSION

P4

- Ericsson support 2.

* P1: The UE uses the SIB11 value of validity timer if no validity timer was configured in RRCRelease (i.e. not depending on if frequencies were configured or not).
* P4: Go with approach 2, as proposed. Attached TP as starting point. Review details in the CR discussion.

### 7.4.4 MAC Corrections

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

In-principle agreed CR

[R2-2405219](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405219.zip) Miscellaneous corrections for further mobility enhancements Huawei, HiSilicon CR Rel-18 38.321 18.1.0 1817 2 F NR\_Mob\_enh2-Core R2-2404023

- Baseline for further updates

* Revised in post email discussion

Corrections

R2-2404229 MAC corrections for LTM Samsung discussion Rel-18 NR\_Mob\_enh2-Core

- Samsung rports that there is another change in main session that overlaps with and covers this

* noted

[R2-2405331](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405331.zip) UL grant handling during RACH-less LTM cell switch LG Electronics Inc, Lenovo, ZTE Corporation discussion Rel-18 NR\_Mob\_enh2-Core

- Nokia wonder why it would be beneficial to skip grants. Network can know the situation anyway. Think that the full rrc reconfig complete may not fit CG. Lenovo agrees.

- ZTE would like to prevent data loss for the RRC reconfig complete. Not sure there is an issue. ZTE think indeed Dyn retransmission for CG shall be able to be used.

- Nokia think the network can send a new grant for the CG new transmission. Nokia think this worsens the performance of the handover.

- Session chair: not much support, consider this issue closed.

* Noted

[R2-2405220](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405220.zip) MAC remaining issues for LTM Huawei, HiSilicon discussion Rel-18 NR\_Mob\_enh2-Core

DISCUSSION

P1

- Nokia still think we should go the other way, not much impact

2b

- Nokia wonder why we need this. Chair think we received an LS with this.

P6

- Samsung think the current TS works and think RACH config dedicated has other helpful configurations that is not possible with RACH config common.

- CATT support HW, and think this is the intention.

- ZTE support HW.

- Nokia think RACH config dedicated allows RACH resources not used for common at all which is intended for CFRA. Nokia think that already resources from RACH config common can be used if no resource in RACH config dedicated.

- Session Chair: no consensus

P7

- Nokia think this allows the gNB to use the CFRA resource for other purposes.

* Keep the current MAC procedure: when UE-based TA measurement is configured, the UE determines RACH-based or RACH-less cell switch by checking whether it has successfully measured a TA for the target cell.
* In MAC: capture that the *unifiedTCI-StateType* for the TCI states in the LTM cell switch MAC CE refers to the field in *LTM-TCI-Info*.
* In RRC: capture that the *unifiedTCI-StateType* in *LTM-TCI-Info* should be the same with the *unifiedTCI-StateType* in candidate cell configuration (*ltm-CandidateConfig*).
* For recovery of RLF / reconfiguration with sync failure via LTM, the UE performs CBRA to the selected PCell.

[R2-2405181](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405181.zip) Consideration On Remaining Issues For LTM ZTE Corporation discussion Rel-18 NR\_Mob\_enh2-Core

DISCUSSION

P2P3

- OPPO think this is discussed in R1 and have already agreed this direction.

- HW think P2 is already captured in current R1 procedures, no need to capture more. Not clear that we need to send LS to R3.

- Samsung think 2TA is form a single PCI so support P3 from ZTE.

- Ericsson think there is the same proposal in RAN3. Can wait.

- LG wonder why P3 is needed if P2 is the assumption.

* R2 assumes that In the case of the candidate cell configured with inter-cell mTRP with 2TA, RAN2 confirm the early RACH configuration (e.g. EarlyUL-SyncConfig) and SSB configuration (e.g. ltm-SSB-Config-r18 ) should be related to the TRP associated to the candidate cell not the TRP associated to the additional cells of the candidate cell.
* In case of early RACH across DUs with intra-cell mTRP with 2TA, R2 assumes the target DU should forward the TAG information (e.g. tag-Id-ptr) to the source DU.

[R2-2405663](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405663.zip) Remaining MAC issues for LTM Nokia discussion Rel-18

[R2-2404440](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404440.zip) Discussion on MAC open issue for LTM vivo discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405421](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405421.zip) Discussion on fallback RACH for LTM ASUSTeK discussion Rel-18 38.331 NR\_Mob\_enh2-Core R2-2402579

[R2-2404413](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404413.zip) Discussion on remaining MAC issues for LTM OPPO discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404414](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404414.zip) Issues on supporting MIMO 2TA for LTM OPPO discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404920](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404920.zip) Discussion on TCI state in LTM command MAC CE NEC discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2404969](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404969.zip) Remaining MAC issues for LTM Ericsson discussion Rel-18 NR\_Mob\_enh2-Core

[R2-2405422](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405422.zip) Discussion on LTM candidate configuration for different CGs ASUSTeK discussion Rel-18 38.321 NR\_Mob\_enh2-Core R2-2402580

[R2-2405661](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405661.zip) On the selection of RA preambles for LTM recovery [N161] Nokia discussion Rel-18

Moved from 7.4.3.1

withdrawn

[R2-2405160](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405160.zip) Remaining MAC issues for LTM Nokia discussion Rel-18 NR\_Mob\_enh2-Core Withdrawn

### 7.4.5 UE capabilities

Including outcome of [Post125bis][516][R18Mob] UE cap CRs (Intel)

Email disc

R2-2404272 Draft 306 CR for UE capability for feMob Intel Corporation draftCR Rel-18 38.306 18.1.0 NR\_Mob\_enh2-Core

[R2-2404273](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404273.zip) Draft 331 CR for UE capability for feMob Intel Corporation draftCR Rel-18 38.331 18.1.0 NR\_Mob\_enh2-Core

* Both endorsed
* Remove LTM cap, see below
* Email approval (super short email disc)

Corrections

[R2-2404705](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404705.zip) Band-pair signalling for Early TA acquisition UE capabilities         Qualcomm Incorporated   discussion       Rel-18 NR\_Mob\_enh2-Core

Moved from 7.0.

* Noted

[R2-2405245](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405245.zip) Mobility UE capabilities with Per band pair per band combination granularity  Huawei, HiSilicon   discussion       Rel-18 NR\_Mob\_enh2-Core

Moved from 7.0.1

* Noted

DISCUSSION, the two tdocs above.

- Ericsson think there is also another solution, MSD approach, think offline is good.

- Intel don’t agree with O1, but ok to go either way (QC or HW).

- Nokia confirm O1, think this is related to R4, and cannot only resolve in R2. R4 is discussing

- MTK think that O1 has been confirmed in RAN4 already and prefer HW CR.

- ZTE want to go offline, think O1 is not supported by HW proposal. HW agrees with O1.

- Intel agrees w O1 and think this is supported in the current CR. QC has assumed differently, maybe need to check.

* [AT126][502][R18MobE] UE cap Early TA acquisition (Qualcomm)

 Scope: Continue offline, i.e. based on R2-2405245 and R2-2404705 and the related discussion, determine if change is needed / desired and converge as far as reasonable, determine way forward, or alternatives / discussion points, If applicable, check impact on this discussion of R4 involvement, if any.

 Intended outcome: Report

 Deadline: CB, see schedule

R2-2405954 [AT126][502][R18MobE] UE cap Early TA acquisition (Qualcomm) Qualcomm

- Apple wonder if applied freq bands will be used by network vendors for this purpose.

* RAN2 assumes that the target band for RACH transmission is any supported band within or outside the band combination. This can be revisited if RAN1 or RAN4 indicates otherwise in the future
* RAN2 pursues signalling solution where the target bands for RACH transmission are signalled per feature set, and further discuss how the target bands are indicated, by pointing to *appliedFreqBandList*.

[R2-2404299](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404299.zip) LTM UE capabilities MediaTek inc. discussion Rel-18 NR\_Mob\_enh2-Cor

DISCUSSION

- Intel think other groups have difficulty converging.

- Ericsson think R4 has made agreements at least for FR1.

P1

- Huawei think for point 2, need to think about whether this granularity need to be considered.

- ZTE think this si now per CG, need to think about how to do this.

P2

- Intel Think we don’t need to ask. They should progress their features anyway.

* The LTM L1 measurement capability and LTM capabilities are decoupled
* As the LTM L1 measurement capability and LTM capabilities are decoupled:

1. A UE which reports LTM capability without 45-1 may not perform L1 measurement reporting, and it is up to network implementation how to trigger the LTM execution.

2. The granularity is FFS, e.g. whether LTM capability is divided into two separate capabilities for inter-frequency and intra-frequency.

* Remove LTM capability from current TS
* Long email discussion on the FFS and possibly other points (can take into account late LSes from other groups).

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

### 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)

Agreed-in-principle CRs

[R2-2405556](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405556.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 2 F NR\_mobile\_IAB-Core R2-2403959

[R2-2405686](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2405686.zip) Mismatch of terminology between 38.304 and 38.331 Samsung CR Rel-18 38.304 18.1.0 0398 1 F NR\_mobile\_IAB-Core R2-2402936

[R2-2404960](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404960.zip) Miscellaneous corrections on Mobile IAB Ericsson CR Rel-18 38.331 18.1.0 4701 2 F NR\_mobile\_IAB-Core R2-2404018

* 3 CRs agreed

Other

[R2-2404961](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CRAN2%5CDocs%5CR2-2404961.zip) RILs conclusions for mobile IAB Ericsson discussion Rel-18 NR\_mobile\_IAB-Core

All RIL issues closed

* Noted

### 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

#### 7.12.2.3 User plane corrections

TS impacts 38321