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.

* CB
* [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

[R2-2404620](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

### 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

[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?

Measurement gaps LTM / NR-DC

[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

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

Move 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)

[R2-2405467](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

[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

[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-Cor

[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

[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

[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

[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

[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

[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

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
* On P6, allow companies to check, CB to decide whether to send LS or not, or whether to capture in session notes that there seems to be an inconsistency between SA3 and R2.
* [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

[R2-2404605](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

#### 7.4.3.3 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

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

*Proposal 1 The UE reports the validity status to the network.*

*Proposal 2 If the UE didn’t yet acquire SIB11 in the target cell or if no validity timer is configured in SIB11 and no validity timer was configured in RRCRelease, the UE reports the measurement results but doesn’t check the validity of the measurements.*

*Proposal 3 Add the idle/inactive/reselection configuration in HandoverPreparationInformation for UE Context retrieval.*

*Proposal 4 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).*

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.

* [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

[R2-2404379](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

### 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.

[R2-2405661](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

[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

[R2-2405181](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.

[R2-2404413](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

[R2-2404440](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

[R2-2404920](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

[R2-2405421](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

[R2-2405422](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

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

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 7.0.1

**Observation 1:** “The target band for RACH transmission” in FG39-4/4a/5 can be a band outside or within the band combination.

**Observation 2:** It is not practical to report all possible target bands for RACH transmission in each band combination in the UE capability signalling.

**Proposal:** Define dynamic UE capability reporting mechanism for RAN4’s FG39-4/4a/5, in which:

- In *RRCReconfiguration*/*RRCResume*, the network configures, a list of NR bands that the UE is requested to report as the target bands for RACH transmission.

- In *RRCReconfigurationComplete*/*RRCResumeComplete*, the UE reports, for each requested target band, the interruption time / preparation time required for the serving cells.

[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

**Observation:** The new per band pair per band combination Rel-18 mobility capabilities can be implemented per FS to allow for reuse of the capabilities by different bands in the same or different band combination

**Proposal:** Implement the new per band pair per band combination Rel-18 mobility capabilities with per FS granularity.

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.

* CB
* [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

[R2-2404299](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-Core

##

## 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